TIM

LA FORZA DELLE CONNESSIONI

2022 Annual Report

Dear Shareholders,

Last year, in addressing you, we were only able to make promises, presenting you with ambitious goals in light of the context and our starting point, goals which we believed were achievable through hard work, dedication and a focus on the fundamentals. Today we are able to present and show to you something more tangible, which testifies to the steps taken in the direction of operational and industrial reorganization and a strengthening of our Group. However, the process of gradually improving the Group's economic and operating results has only just begun and we still have a long way to go.

In order to better understand the importance of what has been done and the results achieved this year, it is worth starting with the evolution of the macroeconomic context that our Group has had to deal with over the past 12 months.

The outbreak of war in Ukraine, rising energy prices, a very high level of inflation and the consequent sharp rise in the cost of borrowing have contributed to a climate of uncertainty and a sharp drop in the expectations of households and businesses. Despite this scenario and a very difficult overall picture for the entire telecommunications sector, characterized by a now unsustainable price war and by competition that has become even tougher, due also to the entry of new major players in fixed network services, the TIM Group has managed to keep faith with its commitments by achieving all the guidance targets we set ourselves 12 months ago, something that has occurred only four times in the last 11 years.

Thanks to the ever-increasing contribution of TIM Brasil, in which the Group has believed and invested over the years, Group-wide revenues have returned to seeing growth, which has not been the case since 2017. The decline in EBITDA has been significantly scaled back quarter after quarter; the last three months of the year saw an increase of 2.7%. The planned cost reduction target of 300 million euros for 2022 was also achieved and indeed exceeded. On the other hand, network infrastructure development accelerated, with total investment levels of 3 billion euros for the domestic market and 4 billion euros across the Group.

At the beginning of 2023 we placed a 850 million euro bond that was received with great interest and participation by the market, providing further tangible confirmation of how investors' expectations of our Group, our credibility and solidity are gradually improving.

On the residential customer services front, we pursued a repositioning strategy focused on increasing the value of our offer, focusing on quality, on the performance of our services and on an overall improvement of the "customer experience", abandoning a downward battle that did not benefit either TIM or the sector as a whole. Satisfied customers to whom the ability to listen and responsiveness is demonstrated are also customers who are willing to pay a few euros more in exchange for reliable and quality services.

As far as business services are concerned, TIM Enterprise is our flagship, growing twice as fast as its market and having one unique feature: a portfolio of connectivity, advanced services such as cloud, IoT and cybersecurity, professional services and the largest sales network in the country.

In fact, it is no coincidence that cloud computing services have grown by over 50% compared to last year. The model sees cloud computing and the data center, the IoT and cybersecurity services as combined works in terms of synergy that represent the “one-stop-shop” to which medium-sized and large enterprises, as well as public administrations, can turn, drawing from an extremely adaptable and versatile "à la carte" menu. It is also important to remember that the growth trends of the business and public administration sector can only be further strengthened by the greater use and familiarity that citizens will gradually develop with digital services thanks to the important impetus that will be provided by the National Strategic Pole (Polo Strategico Nazionale, PSN), i.e. the national cloud project of national and local public administrations that we have been awarded together with Cassa Depositi e Prestiti, Leonardo and Sogei.

The infrastructure sector also regained momentum thanks to the acceleration in the number of residential units covered by FTTH technology, which by the end of the year had reached one third of the country. Today there are 16 million broadband customers using our network, and three quarters of them use ultra-broadband connections.

However, the excellent results achieved from an operational point of view are not enough on their own unless they are sustainable from an economic point of view. And it is for this reason that, alongside the fulfillment of the network coverage and the achievement of development targets, we have also rebalanced the underlying economic model by submitting the recognition of an "automatic" price inflation adjustment mechanism for our co-investment offer to the relevant authorities, with the aim of also ensuring a fair return on invested capital.

In a context of a general increase in the supply costs of input factors and energy goods, it is hard to imagine that prices will remain unchanged. In the absence of an upward revision of the economic conditions for network services commensurate with the size of the increases in input factors, we would have "below-cost" prices that would undermine the sustainability of the entire system. For this reason, we opted for the introduction of an automatic review mechanism, i.e. for the establishment of a principle that lasts over time and should therefore also apply to future years without constantly being called into question.

More generally, future price developments, in addition to the increase in input costs, will necessarily and inevitably also have to take into account (explicitly) the investments incurred for greater network capillarity, performance upgrades, and the expansion of transmission capacity necessary to cope with the ever-increasing volumes of traffic with which we are confronted on a daily basis.

In TIM Brasil, revenues grew by 19% while EBITDA recorded a growth of over 16%. Following the completion of the transaction with Oi, partly as a result of the necessary clean-up and verification of the lines that were migrated to TIM Brasil's network, the number of actual customers for mobile network services still increased by more than ten million, registering an overall reduction in average unit revenues that was nonetheless only limited (-4.1%). The number of customers and average unit revenues from fixed network services continued to grow by 4.6% and 5.5% respectively.

After Lease net debt at the Group level stood at 20 billion euros. The increase of 2.4 billion euros compared to the end of 2021 is attributable to extraordinary cash outflows related to the payment of 5G licenses, the acquisition of Oi's assets and the payment of sums related to the agreement with DAZN, which were only partially offset by the sale of the stake in Daphne 3.

The economic results are part of a major shift in approach toward greater sustainability. In fact, the actions implemented have been geared towards achieving better energy efficiency, greater use of renewable sources (46% of the total), reuse and recycling of materials and, more generally, the implementation of policies aimed at reducing carbon dioxide emissions and greater "circularity" of our products, services and assets. At the same time, the Group deployed an unprecedented training effort, reaching a grand total of more than 2.1 million hours of training provided, necessary to enable a profound renewal of the skills of a workforce which, at the domestic level, has an average age of 51. On the gender equality front, in 2022 we reached 43% of women on the Group's boards of directors and 28.4% of women in managerial positions. On this front, all measurable progress is also perfectly in line with the goals set, which have either been reaffirmed or improved.

Despite a solid and reassuring situation from a financial point of view, further strengthened by the positive outcome of the recent 850 million euro bond issue, it cannot be denied that, for us, the high level of debt represents a constraint that limits our growth potential, for instance in terms of non-organic operations or more generally in terms of strategic developments that require significant amounts of capital to be invested.

For this reason, it was also necessary and appropriate to proceed with operations that were of an extraordinary nature and that would have a significant effect on the level of debt. And there's more. The strategic reorganization plan presented on 7 July provides for overcoming the current vertical and horizontal integration that has always characterized our Group (delayering) to move towards the establishment of four independent and self-sufficient entities (TIM Consumer, TIM Enterprise, NetCo and TIM Brasil). We have explained the reasons that drive us to continue in this direction, and these reasons have not changed.

Moreover, the separation of the Group into four separate entities is already a reality in terms of presenting results and increasingly so in terms of organization and internal management. Also in this respect, our roadmap and reorganization effort continued unabated, and on 1 March this year we created the new organizational structure for the TIM Enterprise division.

The mere fact of "having turned a specific spotlight" on individual activities by starting to consider, evaluate and monitor their progress and possible developments from a stand-alone perspective, is already bringing concrete and tangible benefits through bringing out the "hidden" potential and added value of individual entities. Even before the delayering process gets underway, the mere prospect of a potential future separation has already begun to generate more clarity and focus not only for management but also for investors, potential industrial partners and institutional stakeholders.

We are once again rewriting the history of the electronic communications sector in Italy and Europe and we are aware of the responsibilities that this entails. However, we are equally aware that in the absence of strategic decisions, even radical ones, it will be difficult for our sector to recover and shake off the apathy and resignation to a reduced centrality in the development of the digital sector from which it seems to be irreversibly afflicted.

Today, we are not yet in a position to speak of "mission accomplished"; in fact, we are only at the beginning of a journey that still promises to be long and arduous. However, we can assure you that we will do our utmost to build a solid future that safeguards our ability to compete, innovate and produce value.

Salvatore Rossi

Pietro Labriola

TIM

LA FORZA DELLE CONNESSIONI

2022
Annual Report

CONTENTS

This document has been translated into English for the convenience of the readers.
In the event of discrepancy, the Italian language version prevails

BOARD OF DIRECTORS

To date, the following make up the TIM S.p.A. Board of Directors:

Chairman	Salvatore Rossi
Chief Executive Officer and General Manager	Pietro Labriola
Directors	Paolo Boccardelli (independent)
	Paola Bonomo (independent)
	Paola Camagni (independent)
	Maurizio Carli (independent)
	Cristiana Falcone (independent)
	Federico Ferro Luzzi (independent)
	Giulio Gallazzi (independent)
	Giovanni Gorno Tempini
	Marella Moretti (independent)
	Ilaria Romagnoli (independent)
	Paola Sapienza (Lead Independent Director)
	Massimo Sarmi
Secretary to the Board	Agostino Nuzzolo

BOARD OF STATUTORY AUDITORS

Chairman	Francesco Fallacara
Standing Auditors	Angelo Rocco Bonissoni
	Francesca di Donato
	Anna Doro
	Massimo Gambini
Alternate Auditors	Ilaria Antonella Belluco
	Laura Fiordelisi
	Franco Maurizio Lagro
	Paolo Prandi

Independent Auditors	EY S.p.A.

TIM

LA FORZA DELLE CONNESSIONI

Report on Operations

TIM Group 2022

KEY OPERATING AND FINANCIAL DATA

Revenues: 15,788 millions of euros

EBITDA	EBITDA MARGIN	EBITDA ADJUSTED AFTER LEASE
5,347 millions of euros	38.2% organic excluding non recurrent	4,995 millions of euros

ADJUSTED NET FINANCIAL DEBT

25,364 millions of euros

ADJUSTED NET FINANCIAL DEBT - AFTER LEASE

20,015 millions of euros

CAPITAL EXPENDITURES

4,077 millions of euros

HEADCOUNT ITALY	HEADCOUNT OUTSIDE ITALY
40,752 numbers	9,640 numbers

HEADCOUNT AT YEAR END

50,392 numbers

KEY OPERATING AND FINANCIAL DATA - TIM GROUP

Consolidated operating and financial data (*)

(million euros)		2022	2021	2020	2019	2018
Revenues		15,788	15,316	15,805	17,974	18,940
EBITDA	(1)	5,347	5,080	6,739	8,151	7,403
EBIT before goodwill impairment loss		606	591	2,104	3,175	3,151
Goodwill impairment loss		—	(4,120)	—	—	(2,590)
EBIT	(1)	606	(3,529)	2,104	3,175	561
Profit (loss) before tax from continuing operations		(588)	(4,515)	1,397	1,739	(777)
Profit (loss) from continuing operations		(2,654)	(8,400)	7,352	1,226	(1,152)
Profit (loss) from Discontinued operations/Non-current assets held for sale		—	—	—	16	—
Profit (loss) for the year		(2,654)	(8,400)	7,352	1,242	(1,152)
Profit (loss) for the year attributable to owners of the Parent		(2,925)	(8,652)	7,224	916	(1,411)
Capital Expenditures & spectrum		4,077	4,630	3,409	3,784	6,408

Consolidated financial position data(*)

(million euros)		12/31/2022	12/31/2021	12/31/2020	12/31/2019	12/31/2018
Total Assets		62,027	69,187	73,234	70,104	65,619
Total Equity		18,725	22,039	28,840	22,626	21,747
- attributable to owners of the Parent		15,061	17,414	26,215	20,280	19,528
- attributable to non-controlling interests		3,664	4,625	2,625	2,346	2,219
Total Liabilities		43,302	47,148	44,394	47,478	43,872
Total Equity and Liabilities		62,027	69,187	73,234	70,104	65,619
Share capital		11,614	11,614	11,588	11,587	11,587
Net financial debt carrying amount	(1)	25,370	22,416	23,714	28,246	25,995
Adjusted Net Financial Debt	(1)	25,364	22,187	23,326	27,668	25,270
Adjusted net invested capital	(2)	44,089	44,226	52,166	50,294	47,017
Debt ratio (Adjusted net financial debt/Adjusted net invested capital)		57.5%	50.2%	44.7%	55.0%	53.7%

Consolidated profit ratios(*)

		2022	2021	2020	2019	2018
EBITDA / Revenues	(1)	33.9%	33.2%	42.6%	45.3%	39.1%
EBIT / Revenues (ROS)	(1)	3.8%	(23.0%)	13.3%	17.7%	3.0%
Adjusted net financial debt/EBITDA	(1)	4.7	4.4	3.5	3.4	3.4

(*) As of January 1, 2019, the TIM Group has adopted the new IFRS 16 (Leases) with the modified retrospective method (without the restatement of comparative financial information of previous years).

(1) Details are provided under "Alternative Performance Measures".

(2) Adjusted net invested capital = Total equity + Adjusted net financial debt.

Headcount, number in the Group at year end [1]

(number)	12/31/2022	12/31/2021	12/31/2020	12/31/2019	12/31/2018
Headcount (excluding headcount relating to Discontinued operations/Non-current assets held for sale)	50,392	51,929	52,347	55,198	57,901
Headcount relating to Discontinued operations/Non-current assets held for sale	—	—	—	—	—

Headcount, average number in the Group [1]

(equivalent number)	2022	2021	2020	2019	2018
Headcount (excluding headcount relating to Discontinued operations/Non-current assets held for sale)	45,912	47,942	49,099	51,917	54,423
Headcount relating to Discontinued operations/Non-current assets held for sale	—	—	—	—	—

Financial performance measures

TIM S.p.A.

(euros)		2022	2021	2020
Share prices (December average)				
- Ordinary		0.21	0.45	0.39
- Savings		0.20	0.42	0.42
Dividends per share	(2)			
- Ordinary		—	—	0.0100
- Savings		—	—	0.0275
Pay Out Ratio	(2) (*)	—	—	24%
Market capitalization (in million euros)		4,465	9,387	8,458
Market to Book Value	(**)	0.31	0.57	0.34
Dividend Yield (based on December average)	(2) (***)			
- Ordinary		—	—	2.60%
- Savings		—	—	6.49%

TIM Group

(euros)	2022	2021	2020
Basic earnings per share - ordinary shares	(0.14)	(0.40)	0.34
Basic earnings per share – savings shares	(0.14)	(0.40)	0.35
Diluted earnings per share - ordinary shares	(0.14)	(0.40)	0.33
Diluted earnings per share – savings shares	(0.14)	(0.40)	0.34

(1) Includes agency contract workers.

(2) For the year 2022, the ratio was calculated on the basis of the proposed resolutions submitted to the Shareholders' Meeting of April 20, 2023. For all periods, the reference index was assumed to be the Parent's Earnings, calculated by excluding non-recurring items (as detailed in the Note "Significant non-recurring events and transactions" in the Separate Financial Statements of TIM S.p.A. at December 31, 2022).

(*) Dividends paid in the following year/Profit for the year.

(**) Capitalization/Equity of TIM S.p.A..

(***) Dividends per share/Share prices.

Highlights

The results for the fourth quarter 2022, which record a further improvement on the previous quarters thanks to the stabilization and relaunch of the domestic business and the acceleration of the development of TIM Brasil, make it possible to reach or even exceed the objectives set for 2022, which had partly been raised last August.

More specifically, compared with the fourth quarter of 2021, **Group total revenues** grew by 3.3% YoY to 4.3 billion euros (+1.1% YoY in the third, -1.4% YoY in the second and -4.5% YoY in the first quarter) while **Group service revenues** increased for the third consecutive quarter, up by 3.6% YoY to 3.9 billion euros (+3.0% YoY in the third, +1.0% YoY in the second and -2.5% YoY in the first quarter) thanks to the positive contribution from Brazil and an improved domestic trend. In **Italy** the premium positioning strategy "Value vs. Volume" was further strengthened with new measures aiming to increase the rationality of both the fixed and mobile market. More specifically, in light of the recent changes to the macroeconomic context, with reference to the increase in energy and raw material costs, an inflation adjustment mechanism has been introduced which will generate any benefits starting from 2024. In **Brazil**, on the other hand, the Oi Group's mobile business continued to be integrated and the organic growth strategy was further pursued on the fixed market.

A net improvement has been seen in **Group EBITDA**, which reverses the negative trend of previous quarters, recording growth of 2.7% YoY to 1.5 billion euros in the fourth quarter (-6.5% YoY in the third quarter, -8.5% YoY in the second and -13.3% YoY in the first).

Strong improvement is also seen in the **Group's EBITDA After Lease**, which is down 1.3% YoY to 1.2 billion euros (-11.2% YoY in the third quarter, -12.3% YoY in the second and -16.3% YoY in the first).

During the quarter, **cost containment actions** to increase the level of TIM Domestic's structural efficiency also continued ("Transformation Plan", cumulative target of cash cost reduction of 1.5 billion euros by 2024 versus the inertial trend). Over the twelve months, the reduction with respect to the inertial trend was approximately 337 million euros, reaching 112% of the target set for 2022.

Net financial debt After Lease at December 31, 2022 came to 20.0 billion euros, up 2.4 billion euros on December 31, 2021, essentially due to payment of the 5G spectrum and the Oi assets, only partly mitigated by collections made as a result of the sale of the indirect share held in INWIT. Net of one-off effects, over the twelve months, net financial debt After Lease stabilized, thereby inverting the growth trend. **Adjusted Net financial debt** came to 25.4 billion euros, up 3.2 billion euros on December 31, 2021.

At December 31, 2022, the liquidity margin came to approximately 9.0 billion euros and covers the debt maturity dates through to 2024. In January 2023, after two years of absence from the debt capital market, TIM successfully placed a fixed-rate **unsecured bond** of 0.85 billion euros offered to institutional investors.

The **Equity free cash flow** of the twelve months was essentially nil on an After Lease basis (Equity free cash flow was positive for approximately 0.6 billion euros).

Main Domestic operating indicators for the fourth quarter

During the fourth quarter 2022, the **churn rate** in the mobile segment reduced compared with the same period of 2021 (3.3%, -0.3pp YoY) and was essentially stable in fixed (3.4%, -0.1pp YoY).

The total number of TIM **mobile lines** was 30.4 million, stable on end 2021. In a market that is still competitive in the low end (low-spending customers), the stabilization trend of the customer base continued: in terms of "mobile number portability" (i.e. the migration to other operators), TIM again posted the best result among infrastructure operators with a net balance of -41 thousand lines. At the same time the sector saw the portability flows reduce overall by 10% YoY, demonstration of the cooling of the competitive intensity in the high end of the market (high-spending customers).

The **number of fixed lines** reduced by approximately 350 thousand units compared with end 2021. Average revenues of retail customers (ARPU BB+ICT) are up 11% YoY. In 2022, 545 thousand new retail and wholesale Ultrabroadband lines were activated, reaching **10.6 million** units, up by approximately 5% YoY.

Financial highlights

(million euros) - reported data		4th Quarter 2022 (a)	4th Quarter 2021 (b)	% Change (a-b)	2022 (a)	2021 (b)	% Change (a-b)
Revenues		4,259	3,976	7.1	15,788	15,316	3.1
EBITDA	(1)	1,402	731	91.8	5,347	5,080	5.3
EBITDA Margin	(1)	*32.9%*	*18.4%*	*14.5pp*	*33.9%*	*33.2%*	*0.7pp*
EBIT	(1)	168	(4,469)	—	606	(3,529)	—
EBIT Margin	(1)	*3.9%*	—	—	*3.8%*	*(23.0%)*	*26.8pp*
Profit (loss) for the period attributable to owners of the Parent		(197)	(8,642)	—	(2,925)	(8,652)	66.2
Capital Expenditures & spectrum		1,315	1,910	(31.2)	4,077	4,630	(11.9)
					12/31/2022 (a)	12/31/2021 (b)	Change Amount (a-b)
Adjusted Net Financial Debt	(1)				25,364	22,187	3,177

(1) Details are provided under "Alternative Performance Measures".

Organic results [(1)]

(million euros) - organic data	4th Quarter 2022 (a)	4th Quarter 2021 (b)	% Change	2022 (a)	2021 (b)	% Change
TOTAL REVENUES	4,259	4,122	3.3	15,788	15,834	(0.3)
Domestic	3,185	3,237	(1.6)	11,858	12,543	(5.5)
Brazil	1,083	894	21.4	3,963	3,320	19.2
Other operations, adjustments and eliminations	(9)	(9)	—	(33)	(29)	—
SERVICE REVENUES	3,850	3,717	3.6	14,600	14,409	1.3
Domestic	2,822	2,865	(1.5)	10,799	11,221	(3.8)
o/w Wireline	*2,180*	*2,197*	*(0.8)*	*8,276*	*8,607*	*(3.8)*
o/w Mobile	*779*	*791*	*(1.5)*	*3,060*	*3,152*	*(2.9)*
Brazil	1,037	861	20.8	3,834	3,217	19.0
Other operations, adjustments and eliminations	(9)	(9)	—	(33)	(29)	—
EBITDA	1,490	1,451	2.7	6,029	6,459	(6.7)
Domestic	959	1,001	(4.2)	4,174	4,872	(14.3)
Brazil	531	455	16.9	1,863	1,599	16.4
Other operations, adjustments and eliminations	—	(5)	—	(8)	(12)	—
EBITDA After Lease	1,210	1,226	(1.3)	4,995	5,588	(10.6)
Domestic	828	873	(5.2)	3,662	4,363	(16.1)
Brazil	382	358	7.6	1,341	1,237	8.5
Other operations, adjustments and eliminations	—	(5)	—	(8)	(12)	—
CAPEX (net of telecommunications licenses)	1,297	1,380	(6.0)	3,979	3,942	0.9
Domestic	1,059	1,147	(7.7)	3,127	3,137	(0.3)
Brazil	238	233	1.7	852	805	5.7

(1) The organic results exclude non-recurring items and the comparable base is calculated net of the foreign currency translation and the change in the scope of consolidation.

(million euros) - reported data	4th Quarter 2022 (a)	4th Quarter 2021 (b)	% Change	2022 (a)	2021 (b)	% Change
Equity Free Cash Flow	363	172	—	624	632	(1.3)
Equity Free Cash Flow After Lease	209	34	—	(26)	62	—
Adjusted Net Financial Debt [(2)]				25,364	22,187	14.3
Net Financial Debt After Lease[(2)]				20,015	17,573	13.9

- Adjusted Net Financial Debt. The change in the fair value of derivatives and related financial liabilities/assets is adjusted by the booked Net Financial Debt with no monetary effect.

Non-recurring events

In the years 2022 and 2021, the TIM Group recognized **non-recurring net operating expenses** connected to events and transactions that by their nature do not occur on an ongoing basis in the normal course of operations and which have been shown because their amount is significant. Non-recurring charges include, among others, any goodwill impairment changes, charges associated with corporate reorganization/restructuring, provisions for regulatory disputes and potential liabilities related to them, liabilities with customers and/or suppliers, provisions for onerous contracts and prior-year adjustments.

In detail:

(million euros)	2022	2021
Non-recurring expenses (income)		
Revenues		
Revenue adjustments	—	5
Other income		
Recovery of operating expenses	(23)	(13)
Acquisition of goods and services and Change in inventories		
Expenses related to agreements and the development of non-recurring projects	56	50
Employee benefits expenses		
Charges connected to corporate reorganization/restructuring and other costs	572	367
Other operating expenses		
Sundry expenses and provisions	77	735
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**682**	**1,144**
Goodwill impairment loss Domestic CGU	—	4,120
Impact on Operating profit (loss) (EBIT)	**682**	**5,264**

Specifically, non-recurring events for the year 2022 included:

- 572 million euros in employee benefits expenses mainly relating to corporate reorganization/restructuring processes related to outgoing managerial and non-managerial staff, also envisaged in accordance with the application of Art. 4 of Italian Law no. 92 of June 28, 2012 and the former Art. 41, subsection 5bis, of Italian Legislative Decree no. 148/2015, as per agreements signed during the year, with the trade unions and referring entirely to the Italian companies of the Domestic Business Unit);
- 56 million euros mainly for non-recurring expenses associated with agreements and the development of corporate transformation and expansion projects in Italy and Brazil;
- 77 million euros of other operating expenses primarily as provisions for disputes, settlements, regulatory sanctions and potential liabilities related to them, including 41 million euros relating to a provision for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022;
- 23 million euros in income for recovery of operating expenses.

In 2021, net non-recurring charges recorded by the TIM Group included:

- 4,120 million euros for the impairment loss on Goodwill attributed to the Domestic Cash Generating Unit (CGU).
- 735 million euros in other operating expenses, mainly referring to provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic.

  Amongst the Other operating expenses - Sundry expenses and provisions, the amount included 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to certain contracts for the offer of multimedia content connected with the partnerships currently in place.

  For more details, refer to the chapter on “Complex contracts” in this Report on Operations and the Note “Provisions for risks and charges” of the TIM Group Consolidated Financial Statements at December 31, 2022.
- 367 million euros in employee benefit expenses mainly connected with business reorganization/restructuring processes following the application of art. 4 of Law no. 92 of June 28, 2012, as defined in the trade union agreements signed between the some of the Group companies, including the Parent Company TIM S.p.A. and the trade unions;
- 50 million euros for expenses related to agreements and the development of non-recurring projects, as well as costs for purchases relating to supplies that became necessary for the management of the health emergency;
- 8 million euros in net income for adjustments to revenues and the recovery of operating expenses.

Complex contracts

As part of a process aiming to ensure the identification and definition of the initiatives for the evolution of the internal control system for the management of corporate risks, in 2022, the TIM Group instituted a Technical Committee to supervise complex contracts (the "Technical Committee").

The Technical Committee defined:

- the objective criteria on which basis to classify a contract as a "complex contract";
- the procedure for the assessment and authorization of complex contracts, which envisages the involvement of multiple subjects and competences able to assess the different risk profiles (board decision-making process);
- the update of the policy regulating the process for formalizing contracts in the Group contracts, envisaging a clear identification and formalization of the reasoning behind the decision-making process to assign complex contracts as well as the related escalation mechanisms, thus strengthening the process for identifying and reconstructing sources, information elements and controls performed.

During 2021, as detailed in the related Annual Financial Report, some contracts for the supply of multimedia contents in connection with the current partnerships, including that between TIM and DAZN, have highlighted a comprehensive negative margin throughout the entire contract duration, with the need to make a provision for a total of 548 million euros for posting a contractual risk provision for onerous contracts at December 31, 2021.

Starting from the 2022 financial year, use of the aforementioned Provision over the contractual term makes it possible to offset the negative item of the margin (EBITDA) - referring to both the operating performance of the business and commitments in terms of prices that TIM is contractually obliged to pay to counterparties - thereby obtaining a null operating margin (organic) for the content business.

In August 2022, TIM and DAZN reached a new agreement that - in amending the clauses previously in place - allows DAZN to distribute football rights to show the TIM Serie A championship matches through any third party, surpassing the previous system of TIM exclusivity. The new contractual structure has no impact on TIM customers, who continue to enjoy matches through TimVision, the most advantageous streaming platform with the best selection of content available on the market. At the same time, the objective is achieved of distributing rights over multiple platforms with a view to developing a more sustainable economic model that would also be less volatile.

During 2022, TIM S.p.A. also recorded a provision of 41 million euros for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

The Provision for contractual risks for onerous contracts at December 31, 2022 came to 247 million euros.

Below are:

- the amount used in 2022 of the Provision for risks to cover the negative margin;
- the amount of the total organic margins (organic EBITDA) without using the risk provision for onerous contracts.

(million euros)	2022	
	TIM Group	**Domestic Business Unit**
ORGANIC EBITDA (including use of the risk provision for onerous contracts)	**6,029**	**4,174**
- Use of the risk provision for onerous contracts to cover the negative margin	(346)	(346)
ORGANIC EBITDA (excluding use of the risk provision for onerous contracts)	**5,683**	**3,828**

The amount of 346 million euros is the negative margin, for which the provision was used. As far as the portion relating to the football contract with DAZN is concerned, this amount includes both the operating performance of the business and the component linked to the prices that TIM is contractually obliged to pay to DAZN, which is recorded at the end of each football season (June 30, each year), at the same time as use of the related provision set aside.

From a financial viewpoint, the negative margin covered by the Risks Provision has an equal impact on the Net Financial Position and cash flows. For the DAZN contract, TIM is contractually obliged to pay advance installments for each year (July 1-June 30, corresponding to each championship season).

With reference to the multi-year contracts for *multimedia* content, which in some cases require TIM to pay the counterparty prices by way of guaranteed minimum, it should be recalled that the valuation of these contracts and the estimation of the associated costs is subject to numerous uncertainties that include, amongst others, market dynamics, rulings by the market regulatory authorities and the development of new technologies in support of the service. These estimates are revised from time to time on the basis of the final data in order to make sure that the provisional figures remain within the reasonably foreseeable range. Not all the factors mentioned are under the company's control hence they could have a significant impact on future forecasts regarding the performance of the contracts, the estimated amount of (positive or negative) margins and the cash flows that are generated.

Rights to use 5G frequencies in Italy

On September 30, 2022, TIM paid the fifth and final installment, of 1.7 billion euros, out of the total of 2.4 billion euros due in fulfillment of the undertakings made by the Company following the award of the rights to use mobile frequency bandwidths pursuant to the “5G Auction” held in 2018 by the Ministry for Economic Development.

In detail:

in October 2018, following a public tender process in which 5 Italian mobile operators took part (Iliad, Fastweb, TIM, Vodafone and Wind3), TIM was awarded the rights of use on all bandwidths included in the auction. In particular, TIM was awarded 2x10 MHz in the 700 MHz bandwidth (blocks available from July 1, 2022), 80 MHz in the 3.6-3.8 GHz bandwidth and 200 MHz in the 26 GHz bandwidth (both bandwidths available from January 1, 2019).

The total amount of the award was **2.4 billion euros**, to be paid in five annual installments as per the forecast collections of the 2017 Budget Law, broken down as follows:

(euros)	2018	2019	2020	2021	2022	Total
Telecom Italia S.p.A.	477,473,285.00	18,342,110.83	110,052,665.01	55,026,332.50	1,738,485,952.97	**2,399,380,346.32**

Following payment of the last installment, on October 04, 2022 the Ministry of Economic Development notified the guarantor banks of the definitive release of the surety given at the time as guarantee of the payment obligations.

The 5G frequencies allow TIM, together with the other frequency bandwidths already in its possession, to cover all cases of use envisaged by the International Telecommunication Union (ITU) for 5G (IMT-2020 5G), thereby satisfying the needs of the world seeing very strong IoT growth thanks to the possibility of simultaneously managing thousands of connections and Industry 4.0 thanks to the very low latencies and entertainment, thanks to the high transmission speeds (over 2 Gbps) and, finally, the automotive and mission critical applications (Public Safety and Public Protection/Disaster Relief) thanks to the extremely reliable connections.

It should be highlighted that in the 3.4-3.8 GHz bandwidth, TIM is the only Italian mobile operator to have 100 MHz (20 MHz in the 3.4-3.6 GHz bandwidth and 80 MHz in the 3.6-3.8 GHz bandwidth) and is therefore able to offer significantly better latency and throughput than national competitors.

The value of the rights of use for the 5G frequency bandwidths (in Italy) and the related useful lives at December 31, 2022 are detailed as follows:

	Acquisition value (million euros)	Residual amount at 12/31/2022 (million euros)	Useful life	Maturity
694-790 MHz band	680	658	15 years and 6 months	12/31/2037
3600-3800 MHz band	1,686	1,331	19 years	12/31/2037
26.5-27.5 GHz band	33	26	19 years	12/31/2037
	2,399	**2,015**		

The Group’s ESG performance

In 2022, sustainability activities involved all areas of the company through more than 40 projects aiming to achieve the targets established in the 2022-2024 ESG Plan.

ENVIRONMENT

In terms of energy, total consumption has remained in line with 2021, in respect of an increase in data on networks and data centers. The result was achieved thanks to action taken to improve the energy efficiency of infrastructures and the use of eco-efficient technologies, which in Italy led to the issue of energy efficiency certificates for about 3.8 million euros.

The pursuit of the reduction of greenhouse gas emissions continued in order to achieve the Carbon Neutrality objectives in 2030 and net zero objectives in 2040, set at Group level. Emissions have reduced as follows compared with 2021:

- related to production (Scope 1), by **12%**;
- generated by the purchase of electricity (Scope 2), by **16%**;
- deriving from the purchase of goods and services, instrumental assets and the use of goods sold (Scope 3), by **13%**.

The increase in energy from renewable sources is confirmed, reaching **61%** (in Brazil the purchase of renewable energy reached 100% in 2021).

In 2022, TIM climate strategy was validated by SBTi. TIM has set itself two objectives in particular, certified by SBTi, to be achieved by 2030 as compared with 2019:

- to reduce Scope 1 and Scope 2 emissions by 75%;

- to reduce Scope 3 emissions by 47%, in particular those relating to the purchase of goods and services, instrumental assets and the use of goods sold.

In Italy circular economy processes have been implemented also thanks to the "Circular Economy Ratio", a performance indicator introduced in 2022, which compares the revenues deriving from the resale of special waste and unused goods/materials with total waste production. In 2022, the indicator reached a value of **0.3 euros/kg**, with an increase of 0.26 euros/kg on 2021, thanks to the lesser waste production and the generation of revenues from resale for **2.4 million euros.**

A new stage along the route towards a sustainable supply chain has also been marked out, with participation as Value chain partner in the Open-es project which, through an ESG assessment system based on international standards, will allow for the qualification of suppliers according to shared sustainability criteria. **More than 900 suppliers of TIM** adhered to the initiative in 2022.

As regards the commercial offer to people and families, the "Fiber up to 10 Gbps" offer has been launched, with fiber optic coverage by the TIM network through to the customer's home and dedicated assistance. **Eco-sustainable products** have also been made available (the "TIM Green" range), accounting for **60%** of all products offered by TIM.

SOCIAL MEDIA

Digital transformation activities have been launched.

In Italy, through TIM Enterprise, whose aim is to enable companies and the public administration to increase the efficiency, speed and security of processes, thanks to digital technologies, in line with the 2022-2024 ESG Plan, **a 21% increase has been recorded in revenues from IoT and Security Services compared with 2021**, and a **31% increase in Digital Identity Services compared with 2021**. In August 2022, through the Polo Strategico Nazionale company set up by TIM, SOGEI, Leonardo and Cassa Depositi e Prestiti, the Convention was signed for the design, implementation and management of the Cloud infrastructure that will host the Public Administration's critical and strategic data and services.

In Brazil, TIM has been confirmed as the first mobile operator to cover **100% of Brazilian municipalities** with its **4G** network.

Attention to sustainability has also been paid in the management of human capital.

In Italy, a continuous training plan has been defined on the skills required by the ICT market, involving all employees for a total of **2.1** million hours delivered (more than **50** hours per head, of which **14** dedicated to the main ESG topics). As regards smartworking, 2022 saw **25,000** employees opt for this, for a total of 46,800 tons CO_2 equivalents avoided, equal to **6.6 thousand** car trips around the earth. The commitment has also continued to overcome the gender gap: at a Group level, **43%** of BoD members are now women and more than **28%** of those holding positions of responsibility; the pay gap has also been zeroed in management and reduced in middle management.

To guide management's work, a short- and long-term incentive policy has also been implemented, hinged on ESG objectives.

In Brazil too, training involved all employees for a total of approximately 0.6 million hours (62 hours per head), with a 24% increase on 2021 and a priority focus on developing competences associated with the technological and market evolution and strengthening the ESG culture.

GOVERNANCE

A platform has been implemented to collect and manage Group ESG data, essential for reporting, and which also includes a strong control system of the consistency and completeness of the data reported.

TIM Brasil has obtained certifications for the management of **cyber security** and transparency, like ISO 27001.

The ESG results for 2022 are in line with the targets of the 2022-2024 Plan. Information on the eligibility and alignment with Taxonomy of the economic activities with respect to the objectives of mitigating and adapting to climate change, is given in the Sustainability Report.

Introduction

The TIM Group and TIM S.p.A. Consolidated Financial Statements for the year 2022 and the comparative figures for the previous year have been prepared in compliance with IFRS issued by the International Accounting Standards Board and endorsed by the European Union ("IFRS").

The accounting policies and consolidation principles adopted are consistent with those applied for the TIM Group Consolidated Financial Statements and the TIM S.p.A. Separate Financial Statements at December 31, 2021, except for the amendments to the standards issued by IASB and adopted starting from January 1, 2022.

TIM Group, in addition to the conventional financial performance measures established by the IFRS, uses certain alternative performance measures in order to present a better understanding of the trend of operations and financial condition.

Specifically, these alternative performance measures refer to: EBITDA; EBIT; organic change and impact of non-recurring items on revenues, EBITDA and EBIT; EBITDA margin and EBIT margin; Net financial debt carrying amount and adjusted net financial debt; Equity free cash flow; Cash flow from operations; Cash flow from operations (net of licenses). Following the adoption of IFRS 16, the TIM Group also presents the following additional alternative performance measures: EBITDA After Lease ("EBITDA-AL"), Adjusted net financial debt After Lease, Equity Free Cash Flow After Lease.

In line with the ESMA guidance on alternative performance measures (Guidelines ESMA/2015/1415), the meaning and contents of such are explained in the section on "Alternative performance measures" and the analytical detail of the amounts of the reclassifications introduced and of the methods for determining indicators is provided.

Lastly, the section entitled "Business Outlook for the year 2023" contains forward-looking statements in relation to the Group's intentions, beliefs or current expectations regarding financial performance and other aspects of the Group's operations and strategies. Readers of this Annual Financial Report are reminded not to place undue reliance on forward-looking statements; in fact, actual results may differ significantly from forecasts owing to risks and uncertainties depending on numerous factors, the majority of which are beyond the scope of the Group's control. Please refer to the "Main risks and uncertainties" section for more information. It provides a detailed description of the major risks pertaining to the TIM Group business activity which can, even considerably, affect its ability to meet the set goals.

Main changes in the scope of consolidation of the TIM Group

The main changes in the scope of consolidation during **2022** were the following:

- *Cozani RJ Infraestrutura e Rede de Telecomunicações S.A. (which joined the Brazil Business Unit scope)*: on April 20, 2022, TIM S.A. (Brazilian subsidiary of the TIM Group) acquired 100% of the share capital of Cozani, the company to which the business unit relating to the part share of the assets, rights and obligations of the mobile telephone business of Oi Móvel - Em Recuperação Judicial, has flowed;
- *Mindicity S.r.l. (which joined the Domestic Business Unit scope)*: Olivetti S.p.A. acquired 70% share capital of the company on May 30, 2022. Mindicity manages a software platform and business under the scope of smart cities;
- *Movenda S.p.A. (which joined the Domestic Business Unit scope)*: TIM S.p.A. acquired 100% share capital of the company in July 2022. Movenda offers digital identity solutions. On December 31, 2022, the merger by incorporation of Movenda S.p.A. into TIM S.p.A. took effect, with accounting and tax effects from July 1, 2022;
- *Daphne 3 S.p.A. (which left the Domestic Business Unit scope)*: on August 4, 2022, TIM S.p.A. transferred 41% of the share capital of the holding Daphne 3, which has a 30.2% investment in Infrastrutture Wireless Italiane ("INWIT") to a consortium of investors led by Ardian.

The following should also be noted:

- *Polo Strategico Nazionale S.p.A.*: the company was established on August 4, 2022, it deals with the design, preparation, fitting out and management of infrastructure for the supply of cloud services and solutions for the public administration. TIM S.p.A. holds 45% of the Joint Venture's share capital (measured for the purposes of the consolidated financial statements using the equity method).

During **2021**, the main corporate transactions were as follows:

- *Noovle S.p.A. (Domestic Business Unit)*: starting January 1, 2021, the conferral has been effective to Noovle S.p.A. of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing;
- *FiberCop S.p.A.; Flash Fiber S.r.l. (Domestic Business Unit)*: starting March 31, 2021, the conferral has been effective to FiberCop S.p.A. of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive access services by means of the secondary copper and fiber network. At the same time, the purchase was completed by Teemo Bidco, an indirect subsidiary of KKR Global Infrastructure Investors III L.P., of 37.5% of FiberCop from TIM and Fastweb has subscribed FiberCop shares corresponding to 4.5% of the company's capital, through the conferral of the stake held in Flash Fiber, which was simultaneously incorporated into FiberCop;
- *TIM Tank S.r.l. (Other operations)*: on April 1, 2021, it was merged into Telecom Italia Ventures S.r.l. with accounting and tax effects backdated to January 1, 2021;
- *Telecom Italia Trust Technologies S.r.l. (Domestic Business Unit)*: starting April 1, 2021, the investment in the company was conferred by TIM S.p.A. to Olivetti S.p.A.;
- *TIM S.p.A. (Domestic Business Unit):* on June 30, 2021, the purchase of the BT Italia Business Unit was completed, offering services to public administration customers and small and medium business/enterprise (SMB/SME) customers. The purchase also included support for customers of the SMB Business Unit, supplied by Atlanet, the BT Contact Center of Palermo;
- *TIM Servizi Digitali S.p.A. (Domestic Business Unit)*: company established on July 30, 2021; the company's corporate purpose is the development and maintenance of plants for the supply of telecommunications services; to this end, we note that in September 2021, the company stipulated a rental contract with Sittel S.p.A. for a business unit consisting of the construction, delivery and assurance of telecommunications networks and plants;
- *Panama Digital Gateway S.A. (Domestic Business Unit)*: company established in July 2021 for the construction of a digital hub that seeks to offer a reference hub for the whole of Central America, the region of the Andes and the Caribbean;
- *Staer Sistemi S.r.l. (Domestic Business Unit)*: company acquired by Olivetti S.p.A. on September 30, 2021. The company's corporate purpose is the carrying out of activities connected with the production and marketing of electronic systems and programs and activities connected with energy efficiency plants;
- *I-Systems S.A. (Brazil Business Unit)*: starting November 2021, following completion of the agreement between TIM S.A. and IHS Fiber Brasil - Cessão de Infraestruturas Ltda. ("IHS Brasil"), IHS Brasil holds 51% of the company's share capital. The remaining 49% is held by TIM S.A.. I-Systems S.A. is the company established by TIM S.A. to segregate its network assets and the provision of infrastructure services;
- *Olivetti Payments Solutions S.p.A. (Domestic Business Unit)*: company established on December 1, 2021; the company's corporate purpose is the management of equity investments, study and research activities, commercial, industrial, financial movable and real estate activities.

Consolidated operating performance

Revenues

Total TIM Group revenues for the year 2022, amounted to **15,788 million euros**, +3.1% compared to 2021 (15,316 million euros). Excluding revenues from the Oi Group mobile business, acquired in Brazil, consolidated revenues would come to 15,640 million euros.

The breakdown of total revenues for the year 2022 by operating segment in comparison with 2021 is as follows:

(million euros)	2022		2021		Changes		
		% weight		% weight	absolute	%	% organic excluding non-recurring
Domestic	11,858	75.1	12,505	81.6	(647)	(5.2)	(5.5)
Brazil	3,963	25.1	2,840	18.5	1,123	39.5	19.2
Other Operations	—	—	—	—	—		
Adjustments and eliminations	*(33)*	*(0.2)*	*(29)*	*(0.1)*	*(4)*		
Consolidated Total	**15,788**	**100.0**	**15,316**	**100.0**	**472**	**3.1**	**(0.3)**

The organic change in the Group's consolidated revenues is calculated by excluding the effect of exchange rate changes[1] (+513 million euros), as well as any non-recurring items (0 million euros in 2022, 5 million euros in 2021).

Revenues for the fourth quarter of 2022 totaled 4,259 million euros (3,976 million euros in the fourth quarter of 2021).

EBITDA

TIM Group EBITDA for the year 2022 came to **5,347 million euros** (5,080 million euros in the year 2021, +5.3% in reported terms; -6.7% in organic terms). Excluding the results of the Oi Group mobile business acquired in Brazil, consolidated EBITDA would come to 5,238 million euros.

The breakdown of EBITDA and the EBITDA margin broken down by operating segment for 2022 compared with 2021, are as follows:

(million euros)	2022		2021		Changes		
		% weight		% weight	absolute	%	% organic excluding non-recurring
Domestic	3,519	65.8	3,730	73.4	(211)	(5.7)	(14.3)
% of Revenues	*29.7*		*29.8*			*(0.1)pp*	*(3.6)pp*
Brazil	1,839	34.4	1,362	26.8	477	35.0	16.4
% of Revenues	*46.4*		*48.0*			*(1.6)pp*	*(1.2)pp*
Other Operations	(12)	(0.2)	(12)	(0.2)	—		
Adjustments and eliminations	*1*	—	—	—	*1*		
Consolidated Total	**5,347**	**100.0**	**5,080**	**100.0**	**267**	**5.3**	**(6.7)**

Organic EBITDA - net of the non-recurring items amounted to **6,029 million euros**; the EBITDA margin was 38.2% (6,459 million euros in 2021, with an EBITDA margin of 40.8%).

EBITDA for 2022 suffers the impact of non-recurring net charges for a total of 682 million euros (1,144 million euros in 2021, including 1 million euros for the exchange effect).

For further details, in addition to that reported in the "Non-recurring events" chapter of this report on operations, see the Note "Significant non-recurring events and transactions" in the Consolidated Financial Statements as at December 31, 2022 of the TIM Group.

[1] The average exchange rates used for the translation into euro (expressed in terms of units of local currency per 1 euro) were 5.43993 in 2022 and 6.35936 in 2021 for the Brazilian real. For the US dollar, the average exchange rates used were 1.05335 in 2022 and 1.18285 in 2021. The effect of the change in exchange rates is calculated by applying the foreign currency translation rates used for the current period to the period under comparison.

Organic EBITDA, net of the non-recurring items, is calculated as follows:

(million euros)	2022	2021	Changes	
			absolute	%
EBITDA	5,347	5,080	267	5.3
Foreign currency financial statements translation effect		235	(235)	
Non-recurring expenses (income)	682	1,143	(461)	
Effect of translating non-recurring expenses (income) in currency		1	(1)	
ORGANIC EBITDA - excluding non-recurring items	**6,029**	**6,459**	**(430)**	**(6.7)**
% of Revenues	*38.2*	*40.8*	*(2.6)pp*	

Exchange rate fluctuations mainly related to the Brazil Business Unit.

Organic EBITDA excluding the use of the risk provisions for onerous contracts came to 5,683 million euros in 2022.

The EBITDA of the fourth quarter of 2022 totaled 1,402 million euros (731 million euros in the fourth quarter of 2021).

Organic EBITDA net of the non-recurring items in the fourth quarter of 2022 totaled 1,490 million euros (1,451 million euros in the fourth quarter of 2021).

EBITDA was particularly impacted by the change in the line items analyzed below:

- **Acquisition of goods and services (7,239 million euros; 6,550 million euros in 2021):**

(million euros)	2022	2021	Change
Acquisition of goods	1,164	1,266	(102)
Revenues due to other TLC operators and costs for telecommunications network access services	1,335	1,383	(48)
Commercial and advertising costs	1,498	1,186	312
Professional and consulting services	311	253	58
Power, maintenance and outsourced services	1,431	1,103	328
Lease and rental costs	798	603	195
Other	702	756	(54)
Total acquisition of goods and services	**7,239**	**6,550**	**689**
% of Revenues	*45.9*	*42.8*	*3.1pp*

The increase mainly refers to the Brazil Business Unit (+525 million euros, including an exchange gain of 175 million euros) and the Domestic Business Unit (+163 million euros).

- **Employee benefits expenses (3,180 million euros; 2,941 million euros in 2021):**

(million euros)	2022	2021	Change
Employee benefits expenses - Italy	**2,842**	**2,679**	**163**
Ordinary employee expenses and costs	2,272	2,312	(40)
Restructuring and other expenses	570	367	203
Employee benefits expenses – Outside Italy	**338**	**262**	**76**
Ordinary employee expenses and costs	336	262	74
Restructuring and other expenses	2	—	2
Total employee benefits expenses	**3,180**	**2,941**	**239**
% of Revenues	*20.1*	*19.2*	*0.9pp*

The increase of 239 million euros was mainly driven by:

- the increase of 203 million euros in the item "Restructuring and other costs" of the Italian component, linked to the provision made in the year 2022 of expenses for a total of 570 million euros, mainly linked to outgoing managerial and non-managerial staff, envisaged according to the application of art. 4 of Law no. 92 of June 28, 2012 and former art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed, during the financial year, with the trade unions, by the Parent Company TIM S.p.A., by Telecom Italia Sparkle, by Telecontact, by Noovle, by Olivetti, by Telecom Italia Trust Technologies and by Telsy.
  In 2021, "Corporate restructuring expenses and other costs" were 367 million euros;

- the greater cost of 76 million euros in the foreign component mainly related to the impact of the exchange rate change and the local salary dynamics of the Brazil Business Unit;
- the reduction of 40 million euros of the Italian component of ordinary employee expenses, mainly due to the savings consequent to the reduction in the average salaried workforce, amounting to an average total of -1,960 employees, of whom an average of -1,598 deriving from the application of the Expansion Contract, which entails a reduction in working hours of staff on the workforce;

- **Other income (213 million euros; 272 million euros in 2021):**

(million euros)	2022	2021	Change
Late payment fees charged for telephone services	39	39	—
Recovery of employee benefit expenses, purchases and services rendered	13	12	1
Capital and operating grants	38	28	10
Damages, penalties and recoveries connected with litigation	37	27	10
Estimate revisions and other adjustments	68	71	(3)
Special training income	1	67	(66)
Other	17	28	(11)
Total	**213**	**272**	**(59)**

- **Other operating expenses (816 million euros; 1,502 million euros in 2021):**

(million euros)	2022	2021	Change
Write-downs and expenses in connection with credit management	236	305	(69)
Provision charges	129	704	(575)
TLC operating fees and charges	243	189	54
Indirect duties and taxes	104	99	5
Penalties, settlement compensation and administrative fines	25	127	(102)
Subscription dues and fees, donations, scholarships and traineeships	13	12	1
Other	66	66	—
Total	**816**	**1,502**	**(686)**

The reduction is mainly attributable to the Domestic Business Unit (-767 million euros), partly offset by the increase in costs relating to the Brazil Business Unit (+85 million euros, including a positive exchange effect for 48 million euros).

The non-recurring items of 2022 amounted to 77 million euros, mainly due to provisions for disputes, transactions, regulatory sanctions and related potential liabilities. It includes, in particular, a provision made by TIM S.p.A. of 41 million euros for onerous contracts relating to a multi-year agreement concluded in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

In 2021, the non-recurring items amounted to 735 million euros and mainly referred to provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic. Provision charges included 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to certain contracts for the offer of multimedia content connected with the partnerships currently in place.

For more details, refer to the chapter on “Complex contracts” in this Report on Operations and the Note “Provisions for risks and charges” of the TIM Group Consolidated Financial Statements at December 31, 2022.

Depreciation and amortization

In 2022 the item amounts to 4,777 million euros (4,490 million euros in 2021) and breaks down as follows:

(million euros)	2022	2021	Change
Amortization of intangible assets with a finite useful life	1,517	1,511	6
Depreciation of tangible assets	2,348	2,284	64
Amortization of rights of use assets	912	695	217
Total	**4,777**	**4,490**	**287**

Net impairment losses on non-current assets

Net impairment losses on non-current assets were null in 2022, instead coming to 4,120 million euros in FY 2021.

In detail, in accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on an annual basis, when preparing the company’s separate and consolidated financial statements.

In preparing the Annual Report for 2022, the TIM Group carried out an impairment test on goodwill. The results of that testing, carried out in accordance with the specific procedure adopted by the Group, confirmed the amounts of Goodwill allocated to the Group's individual Cash Generating Units.

Net impairment losses on non-current assets for the year 2021 amounted to 4,120 million euros and related to the Goodwill impairment loss attributed to the Domestic Cash Generating Unit.

Further details are provided in the Note "Goodwill" to the Consolidated Financial Statements at December 31, 2022 of the TIM Group.

EBIT

TIM Group EBIT for 2022 came to **606 million euros** (-3,529 million euros in 2021).

Organic EBIT, net of the non-recurring items, amounted to **1,288 million euros** (1,816 million euros in 2021), with an EBIT margin of 8.2% (11.5% in 2021).

Organic EBIT, net of the non-recurring items, was calculated as follows:

(million euros)	2022	2021	Changes	
			absolute	%
EBIT	**606**	**(3,529)**	**4,135**	**—**
Foreign currency financial statements translation effect		81	(81)	
Non-recurring expenses (income)	682	5,263	(4,581)	
Effect of translating non-recurring expenses (income) in currency		1	(1)	
ORGANIC EBIT - excluding non-recurring items	**1,288**	**1,816**	**(528)**	**(29.1)**

The EBIT of the fourth quarter of 2022 totaled 168 million euros (-4,469 million euros in the fourth quarter of 2021).

Organic EBIT net of the non-recurring items in the fourth quarter of 2022 totaled 256 million euros (330 million euros in the fourth quarter of 2021).

Other income (expenses) from investments

Other income (expenses) from investments came to 206 million euros (126 million euros in 2021) and are mainly as follows:

- net capital gain of 171 million euros connected with the August 2022 sale of 41% of the share capital of the holding company Daphne 3, which holds a 30.2% share in Infrastrutture Wireless Italiane - INWIT;
- net capital gain of 33 million euros connected with the October 2022 sale of the equity investment in Satispay.

Finance income (expenses), net

Finance income (expenses) showed a net expense of 1,423 million euros (negative for 1,150 million euros in 2021). The increase is due to the increased debt exposure of the IFRS 16 lease component in Brazil following the acquisition of Oi and, to a lesser extent, to the dynamic of interest rates in Europe. This dynamic of interest rates has also influenced the performance of the mark-to-market of hedging derivatives (in any case this is a change in currency and accounting non-monetary items).

Income tax expense

In 2022, **income tax expense** was recorded for 2,066 million euros (3,885 million euros in 2021) and mainly reflects the impact deriving from the exercise of the revocation option of the realignment of goodwill, resolved by TIM's Board of Directors on November 9, 2022, as permitted by the Italian government Budget Law for financial year 2022 and as detailed in the Provision of the Revenue Agency Manager, published on September 29, 2022.

More specifically - having acknowledged publication of such Measure governing the terms, conditions and operating procedures for revocation - the Company assessed economic-financial advantageousness and considered it a priority to strengthen the industrial investments to be made to support the various business areas, an alternative to the financial commitment connected with the payment of substitute tax on the realignment.

Therefore, as there was no longer any basis for entering Deferred tax assets, they have been written-off entirely for a net amount of 1,964 million euros as follows:

- expense of -2,656 million euros for the write-off of deferred tax assets of TIM S.p.A.:
    - in the TIM S.p.A. statements as at December 31, 2020, the amount of 6,569 million euros had been entered for deferred tax assets in respect of a tax recognition of higher values entered in the financial statements pursuant to Decree Law 104/2020, art. 110, subsections 8 and 8 bis, which enabled the deductibility over 18 years, starting 2021, of the tax amortization of the realigned value, in respect of substitute tax in the amount of 3% of the realigned value (692 million euros), to be paid in 3 annual installments of equal amount;
    - in the financial statements at December 31, 2021, a partial write-down had been entered for an amount of -3,913 million euros, connected with the extension to 50 years of the period of tax asset

absorption introduced by Art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A.;

- income of 692 million euros for the reversal of substitute tax that had been allocated for the realignment; in detail, entry of a receivable of 231 million euros related to the first installment, paid on June 30, 2021 and reversal of a payable of 461 million euros for the second and third installments, which will not be paid following revocation of the realignment. The first installment, as envisaged by the Measure, has been recovered financially, offsetting it against tax payments made using the "F24" return, which the Company filed in December 2022, following filing of the supplementary declaration formalizing revocation of the realignment.

Profit (loss) for the year

This item breaks down as follows:

(million euros)	2022	2021
Profit (loss) for the year	**(2,654)**	**(8,400)**
Attributable to:		
Owners of the Parent:		
Profit (loss) from continuing operations	(2,925)	(8,652)
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to owners of the Parent	**(2,925)**	**(8,652)**
Non-controlling interests:		
Profit (loss) from continuing operations	271	252
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to Non-controlling interests	**271**	**252**

The Net loss attributable to Owners of the Parent for 2022, was 2,925 million euros (-8,652 million euros in 2021), suffering the negative impact of net non-recurring expenses for 2,431 million euros (8,692 million euros in 2021).

For more details on non-recurring items, see the Note "Non-recurring events and transactions" in the Consolidated Financial Statements as at December 31, 2022 of the TIM Group.

Business Unit 2022

KEY OPERATING AND FINANCIAL DATA

Domestic

REVENUES	EBITDA MARGIN
11,858 millions of euros	35.2% organic excluding non recurrent

EBITDA	EBITDA ADJUSTED AFTER LEASE
3,519 millions of euros	3,662 millions of euros

FIXED

TIM RETAIL PHISICAL ACCESSES	TIM WHOLESALE PHISICAL ACCESSES	BROADBAND ACCESSES TIM RETAIL ATTIVI
end of period 8,290 thousand	end of period 7,525 thousand	end of period 7,443 thousand

MOBILE

LINES	REPORTED ARPU
end of period 30,407 thousand	7.1 (€/month)

Brazil

REVENUES	EBITDA	EBITDA MARGIN
3,963 millions of euros	1,839	47.0% organic excluding non recurrent

EBITDA ADJUSTED AFTER LEASE	LINES
1,341 millions of euros	62,485 thousand end of period

FINANCIAL AND OPERATING HIGHLIGHTS OF THE BUSINESS UNITS OF THE TIM GROUP

Domestic

(million euros)	2022	2021	Changes (a-b)		
	(a)	(b)	absolute	%	% organic excluding non-recurring
Revenues	11,858	12,505	(647)	(5.2)	(5.5)
EBITDA	3,519	3,730	(211)	(5.7)	(14.3)
% of Revenues	*29.7*	*29.8*		*(0.1)pp*	*(3.6)pp*
EBIT	24	(3,990)	4,014	—	(46.5)
% of Revenues	*0.2*	*(31.9)*		*32.1pp*	*(4.4)pp*
Headcount at year end (number) (°)	40,984	42,591	(1,607)	(3.8)	

(°) Includes 15 agency contract workers at December 31, 2022 (16 at December 31, 2021).

(million euros)	4th Quarter 2022	4th Quarter 2021	Changes (a-b)		
	(a)	(b)	absolute	%	% organic excluding non-recurring
Revenues	3,185	3,224	(39)	(1.2)	(1.6)
EBITDA	878	351	527	—	(4.2)
% of Revenues	*27.6*	*10.9*		*16.7pp*	*(0.8)pp*
EBIT	(16)	(4,621)	4,605	(99.7)	(56.1)
% of Revenues	*(0.5)*	—		*(0.5) pp*	*(2.5)pp*

(million euros)	2022
EBITDA	**3,519**
ORGANIC EBITDA (including use of the risk provision for onerous contracts)	**4,174**
- Use of the risk provision for onerous contracts to cover the negative margin	(346)
ORGANIC EBITDA (excluding use of the risk provision for onerous contracts)	**3,828**

Fixed

	12/31/2022	12/31/2021	12/31/2020
Total TIM Retail accesses (thousands)	8,290	8,647	8,791
of which NGN (1)	*5,417*	*5,186*	*4,432*
Total TIM Wholesale accesses (thousands)	7,525	7,729	7,974
of which NGN	*5,171*	*4,819*	*4,220*
Active Broadband accesses of TIM Retail (thousands)	7,443	7,733	7,635
Consumer ARPU (€/month) (2)	28.3	30.1	33.0
Broadband ARPU (€/month) (3)	35.6	33.4	31.3

(1) Ultrabroadband access in FTTx and FWA mode, also including "data only" lines and GBE (Gigabit Ethernet).
(2) Revenues from organic Consumer retail services in proportion to the average Consumer accesses.
(3) Revenues from organic Broadband services in proportion to the average active TIM retail Broadband accesses.

Mobile

	12/31/2022	12/31/2021	12/31/2020
Lines at period end (thousands)	30,407	30,466	30,170
of which Human	*18,438*	*19,054*	*19,795*
Churn rate (%) [(4)]	13.3	14.7	18.6
Broadband users (thousands) [(5)]	12,577	12,783	12,818
Retail ARPU (€/month) [(6)]	7.1	7.5	8.0
Human ARPU (€/month) [(7)]	11.5	11.7	12.1

(4) Percentage of total lines that ceased in the period compared to the average number of total lines.
(5) Mobile lines using data services.
(6) Revenues from organic retail services (visitors and MVNO not included) compared to the total average number of lines.
(7) Revenues from organic retail services (visitors and MVNO not included) compared to the average number of human lines.

Revenues

Domestic Business Unit revenues amounted to 11,858 million euros, down 647 million euros (-5.2%) compared to 2021. In organic terms, they reduce by 685 million euros (-5.5% on 2021).

Revenues from stand-alone services come to 10,799 million euros (-384 million euros compared to 2021, -3.4%) and suffer the impact of the competition on the customer base, as well as a reduction in ARPU levels; in organic terms, they drop by 422 million euros compared to 2021 (-3.8%).

In detail:

- **revenues from stand-alone Fixed market services** amounted to 8,276 million euros in organic terms, with a negative change with respect to 2021 (-3.8%%) mainly due to the decrease in accesses and ARPU levels and the presence in 2021 of non-repeatable transactions on the Wholesale segment, partly offset by the growth in revenues from ICT solutions (+308 million euros compared to 2021, +22.7%);
- **revenues from stand-alone Mobile market services** came to 3,060 million euros (-91 million euros on 2021, -2.9%), mainly due to the reduction in the customer base connected with Human lines and ARPU levels.

Revenues for Handset and Bundle & Handset, including the change in work in progress, are equal, in organic terms, to 1,059 million euros in 2022, a decrease of 263 million euros compared to 2021, for the most part attributable to the Fixed Retail segment.

Note that revenues for 2022 include approximately 50 million euros relating to a portion of the commercial agreement signed in 2022 by TIM and FiberCop with Open Fiber, which requires Open Fiber to purchase from FiberCop, in the so-called white areas, the right of use (IRU) for overhead infrastructure and access connections to the customer's home.
Details of revenues for the fourth quarter and year of 2022 for the Domestic Business Unit are presented in the following table, broken down by customer/business segment and compared to the fourth quarter and year of 2021.

(million euros)	4th Quarter 2022	4th Quarter 2021	2022	2021	% Change			
	(a)	(b)	(c)	(d)	(a/b)	(c/d)	organic excluding non-recurring (a/b)	organic excluding non-recurring (c/d)
Revenues	**3,185**	**3,224**	**11,858**	**12,505**	**(1.2)**	**(5.2)**	**(1.6)**	**(5.5)**
Consumer	1,183	1,286	4,736	5,263	(8.0)	(10.0)	(8.0)	(10.0)
Business	1,198	1,136	4,144	4,117	5.5	0.6	5.5	0.6
Wholesale National Market	489	508	1,948	2,107	(3.7)	(7.6)	(3.7)	(7.6)
Wholesale International Market	269	289	992	1,008	(6.9)	(1.6)	(9.4)	(4.7)
Other & Eliminations	46	5	38	10				

As regards the market segments of the Domestic Business Unit, note the following changes compared to 2021:

- **Consumer** (*the segment consists of all Fixed and Mobile voice and Internet services and products managed and developed for individuals and families and of public telephony, caring and the administrative management of customers; it includes the company TIM Retail, which coordinates the activities of its stores*): in organic terms, the revenues of the Consumer segment totaled 4,736 million euros (-527 million euros compared to previous year, -10.0%) and show a trend, compared to 2021, affected by the challenging competition. The trend seen in total revenues also applied to revenues from services, which amounted to 4,231 million euros, down by 339 million euros compared to 2021 (-7.4%).

In particular:

- **revenues from Mobile services** totaled, in organic terms, 1,885 million euros (-120 million euros, -6.0% compared to 2021). The impact of the competitive dynamic remains, albeit with a lesser reduction of the customer base calling; revenues from traffic are down due to the progressive reduction of interconnection tariffs;
- **revenues from Fixed services** totaled, in organic terms, 2,369 million euros (-231 million euros, -8.9% compared to 2021), primarily due to lower ARPU levels and the smaller customer base, which in 2021 benefited from government incentive programs such as voucher recognition for ISEE incomes below 20,000 euros. Growth in Ultrabroadband customers is highlighted.

Revenues for Handsets and Bundles & Handsets in the Consumer segment amounted to 505 million euros, down 188 million euros compared to 2021 (-27.1%); the difference is mainly due to the end of the phase 1 voucher program, with a reduction of sales of PCs and Tablets.

- **Business** (*the segment consists of voice, data, and Internet services and products, and ICT solutions managed and developed for small and medium-size enterprises (SMEs), Small Offices/Home Offices (SOHOs), Top customers, the Public Sector, Large Accounts, and Enterprises in the Fixed and Mobile telecommunications markets. The following companies are included:* Olivetti, TI Trust Technologies, Telsy and the Noovle Group): in organic terms, revenues for the Business segment amounted to 4,144 million euros (+27 million euros compared to 2021, +0.6%, of which +2.7% for revenues from the stand-alone services component). In particular:
  - **total Mobile revenues** showed an organic performance in line with 2021 as did revenues from stand-alone services;
  - **total Fixed revenues** changed by +27 million euros compared to 2021 (+0.8%); revenues from services grew by +3.4%, mainly driven by the increase in revenues from ICT services.
- **Wholesale National Market** (*the segment consists of the management and development of the portfolio of regulated and unregulated wholesale services for Fixed-line and Mobile telecommunications operators in the domestic market and MVNOs. The following companies are included: TI San Marino and Telefonia Mobile Sammarinese*): the Wholesale National Market segment revenues in the year 2022 reached 1,948 million euros, down by 159 million euros (-7.6%%) compared to 2021, with a negative performance mainly driven by the presence, in 2021, of non-repeatable transactions.
- **Wholesale International Market** (*includes the activities of the Telecom Italia Sparkle group, which operates in the market for international voice, data and Internet services for fixed and mobile telecommunications operators, ISPs/ASPs (Wholesale market) and multinational companies through its own networks in the European, Mediterranean and South American markets*): revenues for 2022 in the Wholesale International Market came to 992 million euros, down compared to 2021 (-16 million euros, -1.6%), mainly due to the decrease in one-offs compared to 2021. The mix of revenues records a growth in recurring data revenues (with high margins) flanked by a strategy seeking to rationalize voice revenues.
- **Other:** includes:
  - **Other Operations units**: covering technological innovation and development, engineering, construction and operating processes for network infrastructures, IT, systems and properties;
  - **Staff & Other**: services provided by the Staff Departments and other support activities carried out by minor companies.

EBITDA

Domestic Business Unit EBITDA for 2022 totaled 3,519 million euros (-211 million euros compared to 2021, -5.7%), with an EBITDA margin of 29.7% (-0.1 percentage points compared to 2021).

Organic EBITDA, net of the non-recurring items, amounted to 4,174 million euros (-698 million euros compared to 2021, -14.3%). In particular, EBITDA for 2022 was impacted by non-recurring items in the amount of 655 million euros, whilst the year 2021 reflected a total impact of 1,137 million euros referring to non-recurring items, of which 26 million euros related to the COVID-19 emergency in Italy.

Organic EBITDA, net of the non-recurring items, is calculated as follows:

(million euros)	2022	2021	Changes	
			absolute	%
EBITDA	**3,519**	**3,730**	**(211)**	**(5.7)**
Foreign currency financial statements translation effect		5	(5)	
Non-recurring expenses (Income)	655	1,137	(482)	
ORGANIC EBITDA - excluding non-recurring items	**4,174**	**4,872**	**(698)**	**(14.3)**

EBITDA in the fourth quarter of 2022 was 878 million euros, (+527 million euros compared with the corresponding period of 2021).

Organic EBITDA excluding the use of the risk provisions for onerous contracts came to 3,828 million euros in 2022.

Regarding the dynamics for the main items, the following are worthy of note:

(million euros)	2022	2021	Change
Acquisition of goods and services	5,697	5,534	163
Employee benefits expenses	2,868	2,703	165
Other operating expenses	444	1,211	(767)

In particular:

- **Other income** amounted to 196 million euros with a decrease of 63 million euros compared to 2021:

(million euros)	2022	2021	Change
Late payment fees charged for telephone services	26	29	(3)
Recovery of employee benefit expenses, purchases and services rendered	13	13	—
Capital and operating grants	36	26	10
Damages, penalties and recoveries connected with litigation	37	26	11
Estimate revisions and other adjustments	68	73	(5)
Income for special training activities	1	67	(66)
Other income	15	25	(10)
Total	**196**	**259**	**(63)**

- **Acquisition of goods and services** amounted to 5,697 million euros with an increase of 163 million euros compared to 2021:

(million euros)	2022	2021	Change
Acquisition of goods	994	1,154	(160)
Revenues due to other TLC operators and interconnection costs	1,175	1,258	(83)
Commercial and advertising costs	1,031	856	175
Professional and consulting services	137	162	(25)
Power, maintenance and outsourced services	1,203	943	260
Lease and rental costs	531	459	72
Other	626	702	(76)
Total acquisition of goods and services	**5,697**	**5,534**	**163**
% of Revenues	*48.0*	*44.3*	*3.7*

- **Employee benefits expenses** amounted to 2,868 million euros with an increase of 165 million euros compared to 2021. The same dynamics already described in the information given on the consolidated operating performance impacted this performance too.
- **Other operating expenses** amounted to 444 million euros with a decrease of 767 million euros compared to 2021:

(million euros)	2022	2021	Change
Write-downs and expenses in connection with credit management	120	219	(99)
Provision charges	106	676	(570)
TLC operating fees and charges	44	43	1
Indirect duties and taxes	86	82	4
Penalties, settlement compensation and administrative fines	25	127	(102)
Subscription dues and fees, donations, scholarships and traineeships	11	11	—
Sundry expenses	52	53	(1)
Total	**444**	**1,211**	**(767)**

Other operating expenses for 2022 include a non-recurring item of 78 million euros, referring mainly to disputes, transactions, expenses connected with regulatory sanctions and expenses related to agreements and the development of non-recurring projects.

Note that Write-downs and expenses in connection with credit management shows a reduction of 99 million euros compared with 2021.

The non-recurring items of 2021, amounting to 735 million euros, mainly referred to regulatory disputes and related liabilities and to liabilities with customers and/or suppliers.

EBIT

Domestic Business Unit EBIT for 2022 totaled 24 million euros (+4,014 million euros compared to 2021), with an EBIT margin of 0.2% (-31.9% in 2021).

Organic EBIT, net of the non-recurring items, amounted to 679 million euros (-589 million euros compared to 2021, -46.5%), with an EBIT margin of 5.7% (a reduction of -4.4 percentage points compared to the 10.1% of 2021).

Organic EBIT, net of the non-recurring items, was calculated as follows:

(million euros)	2022	2021	Changes	
			absolute	%
EBIT	24	(3,990)	4,014	
Non-recurring expenses (Income)	655	5,257	(4,602)	
ORGANIC EBIT - excluding non-recurring items	679	1,268	(589)	(46.5)

EBIT for the fourth quarter of 2022 was negative for -16 million euros (4,621 million euros in the fourth quarter of 2021).

Brazil

	(million euros)		(million Brazilian reais)		Changes		
	2022	2021	2022	2021	absolute	%	% organic excluding non-recurring
	(a)	(b)	(c)	(d)	(c-d)	(c-d)/d	
Revenues	3,963	2,840	21,531	18,058	3,473	19.2	19.2
EBITDA	1,839	1,362	9,993	8,661	1,332	15.4	16.4
% of Revenues	*46.4*	*48.0*	*46.4*	*48.0*		*(1.6) pp*	*(1.2) pp*
EBIT	593	473	3,236	3,010	226	7.5	10.4
% of Revenues	*15.0*	*16.7*	*15.0*	*16.7*		*(1.7) pp*	*(1.3) pp*
Headcount at year end (number)			9,395	9,325	70	0.8	

The average exchange rates used for the translation into euro (expressed in terms of units of Real per 1 euro) were 5.43993 for 2022 and 6.35936 for 2021.

	(million euros)		(million Brazilian reais)		Changes		
	4th Quarter 2022	4th Quarter 2021	4th Quarter 2022	4th Quarter 2021	absolute	%	% organic excluding non-recurring
	(a)	(b)	(c)	(d)	(c-d)	(c-d)/d	
Revenues	1,083	761	5,825	4,799	1,026	21.4	21.4
EBITDA	524	385	2,824	2,429	395	16.3	16.9
% of Revenues	*48.5*	*50.6*	*48.5*	*50.6*		*(2.1)pp*	*(1.9)pp*
EBIT	184	158	994	999	(5)	(0.5)	1.4
% of Revenues	*17.1*	*20.8*	*17.1*	*20.8*		*(3.7)pp*	*(3.5) pp*

	2022	2021
Lines at period end (thousands) (*)	62,485	52,066
Mobile ARPU (reais)	26.1	26.4

(*) Includes corporate lines.

The **Brazil Business Unit (TIM Brasil group)** provides mobile services using UMTS, GSM and LTE technologies. Moreover, the TIM Brasil group offers fiber optic data transmission using full IP technology, such as DWDM and MPLS and residential Broadband services.

Acquisition of the Oi Group mobile business

On April 20, 2022, TIM S.A. (Brazilian subsidiary of the TIM Group), Telefônica Brasil S.A. and Claro S.A., after having fulfilled the conditions established by the Conselho Administrativo de Defesa Econômica (CADE) and the Agência Nacional de Telecomunicações (ANATEL), concluded the acquisition of the mobile telephone assets of Oi Móvel S.A. - Em Recuperação Judicial.

With the conclusion of the transaction, TIM S.A. now holds 100% of the share capital of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A. ("SPE Cozani"), a company that corresponds to part of the assets, rights and obligations of Oi Móvel acquired by the company.

In September 2022, TIM S.A. and the other buyers of the Oi Móvel mobile telephone assets had identified differences in the assumptions and calculation criteria that, under the terms of the Share Purchase Agreement and Other Covenants ("SPA"), justify a proposal to change the Adjusted Closing Price ("ACP") by TIM S.A. of approximately 1.4 billion reais. In addition to differences relating to the Adjusted Closing Price, others have also been identified relating to the contracts of Cozani (the company into which the business unit corresponding to TIM S.A.'s share of the assets, rights and obligations of the Oi Móvel mobile telephone business, flowed) with companies supplying mobile infrastructure services (site/tower rental), which, under the terms of the SPA, give rise to indemnity by the Seller in TIM S.A.'s favor, of approximately 231 million reais. As a result of the differences found, TIM S.A. retained an amount of 634 million reais (671 million reais at December 31, 2022).

In October 2022, considering the Seller's express violation of the dispute resolution mechanisms provided for in the SPA, TIM S.A. communicated that the Buyers had no other alternative but to file an arbitration procedure with the Market Arbitration Chamber (Câmara de Arbitragem do Mercado) of B3 S.A. - Brasil, Bolsa, Balcão against the Seller to determine the effective amount of the adjustment to the Adjusted Closing Price, in accordance with the SPA.

Additionally, in October 2022, the 7th Business Court of the Judicial District of Rio de Janeiro handed down a preliminary decision, determining the deposit in court by the Buyers of approximately 1.53 billion reais – of which approximately 670 million reais by TIM S.A. – in an account linked to the court-ordered reorganization process of Oi, where it will be safeguarded until a later decision by the arbitration court.

Further details are provided in the Note "Disputes and pending legal actions, other information, commitments and guarantees" to the Consolidated Financial Statements at December 31, 2022 of the TIM Group.

Revenues

Revenues for 2022 of the **Brazil Business Unit (TIM Brasil group)** amounted to 21,531 million reais (18,058 million reais in 2021, +19,2%). Excluding revenues from the mobile business of the Oi Group (Cozani, acquired on April 20, 2022) revenues for the year 2022 are 20,759 million reais.

The acceleration has been determined by **service revenues** (20,829 million reais vs 17,497 million reais in 2021, +19.0%) with mobile service revenues growing 19.8% on 2021. This performance is mainly related to the continuous recovery of the pre-paid and post-paid segments. Revenues from fixed services have grown by 7.6% compared to 2021, determined above all by the growth rate of TIM Live.

Revenues from product sales totaled 702 million reais (561 million reais in 2021).

Revenues in the fourth quarter of 2022 totaled 5,825 million reais, increased by 21.4% on the fourth quarter of 2021 (4,799 million reais). Excluding the revenues of Cozani, revenues of the fourth quarter of 2022 grew by 1,204 million reais (25.1%).

Mobile ARPU for 2022 was 26.1 reais (26.4 reais in 2021). The reduction is connected with the acquisition of the Oi Group customer base.

Total mobile lines in place at December 31, 2022 amounted to 62.5 million, +10.4 million compared to December 31, 2021 (52.1 million), mainly following the acquisition of the Cozani customer base. This overall increase came from the pre-paid segment (+6.0 million), and the post-paid segment (+4.4 million) and connected with the acquisition of the Oi Group customer base. Post-paid customers represented 43.6% of the customer base as of December 31, 2022 (43.9% at December 2021).

The TIM Live Broadband business recorded net positive growth on December 31, 2022 in the customer base of 31 thousand users compared to December 31, 2021. In addition, the customer base continues to be concentrated on high-speed connections, with more than 50% exceeding 100Mbps.

EBITDA

EBITDA in 2022 was 9,993 million reais (8,661 million reais in 2021, +15.4%) and the margin on revenues amounted to 46.4% (48.0% in 2021).

EBITDA in 2022 reflects the non-recurring charges of 128 million reais mainly related to the development of non-recurring projects and the corporate reorganization processes.

Organic EBITDA, net of the non-recurring items, increased by 16.4% and was calculated as follows:

(million Brazilian reais)	2022	2021	Changes	
			absolute	%
EBITDA	9,993	8,661	1,332	15.4
Non-recurring expenses (income)	128	36	92	
ORGANIC EBITDA - excluding non-recurring items	10,121	8,697	1,424	16.4

The increase of EBITDA is due to the greater revenues as well as the consolidation of Cozani (579 million reais).

The relative margin on revenues, in organic terms, comes to 47.0% (48.2% in 2021).

EBITDA for the fourth quarter of 2022, amounted to 2,824 million reais, up 16.3% compared to the fourth quarter of 2021 (2,429 million reais).

Net of non-recurring charges, the margin on revenues for the fourth quarter of 2022 was 49.1% (50.9% in the fourth quarter of 2021).

The changes in the main cost items are shown below:

	(million euros)		(million Brazilian reais)		
	2022 (a)	2021 (b)	2022 (c)	2021 (d)	Change (c-d)
Acquisition of goods and services	1,562	1,037	8,490	6,592	1,898
Employee benefits expenses	311	237	1,690	1,506	184
Other operating expenses	367	282	1,992	1,798	194
Change in inventories	(6)	7	(34)	44	(78)

EBIT

EBIT for 2022 was 3,236 million reais (3,010 million reais in 2021 +7.5%).

Organic EBIT, net of the non-recurring items, in 2022 amounted to 3,364 million reais (3,046 million reais in 2021), with a margin on revenues of 15.6% (16.9% in 2021).

Organic EBIT, net of the non-recurring items, is calculated as follows:

(million Brazilian reais)	2022	2021	Changes	
			absolute	%
EBIT	**3,236**	**3,010**	**226**	**7.5**
Non-recurring expenses (income)	128	36	92	
ORGANIC EBIT - excluding non-recurring items	**3,364**	**3,046**	**318**	**10.4**

The EBIT of the fourth quarter of 2022 totaled 994 million reais (999 million reais in the fourth quarter of 2021).

Net of non-recurring charges, the margin on revenues for the fourth quarter of 2022 was 17.6% (21.1% in the fourth quarter of 2021).

Commercial strategy

2022

PREMIUM POSITIONING

OPERATOR WITH THE BEST PERFORMANCE AND RELIABILITY.

Strengthening of the market positioning:

"TIM la forza delle connessioni" (TIM the power of connections)

RENEWAL OF THE VALUE PROPOSITION

WITH FOCUS ON SERVICE QUALITY AND HIGH TECHNOLOGY, STRATEGIC SEGMENTS AND SUSTAINABILITY.

- First on the market to launch fiber at 10 Gbps
- Development of 5G in more than 350 cities
- Drive on convergence, with cross benefits for fixed and/or mobile customers
- New TIM Power portfolios offering fiber and 5G
- Launch of WIFI calling service

DATA-DRIVEN CB MANAGEMENT

FOCUSED ON QUALITY AND CUSTOMER EXPERIENCE.

TIM conquers leadership of the Market Share Customer Base FTTH

DIGITAL SERVICES

NEW CONTENT DELIVERY MODEL, TURNKEY ICT SOLUTIONS AND NEW INNOVATIVE SERVICES

Partnerships with national and international players

MAIN COMMERCIAL DEVELOPMENTS

Domestic

Launch of a new brand positioning

In 2022, TIM launched a brand positioning change: today, the new "destinies cross paths" format tells us how the strength of human connections and TIM technologies foster the dreams of great Italian endorsers. The new format has already won two important industry prizes.

Renewal of the value proposition with focus on the evolution of technology and quality of service, focus on strategic segments and sustainability

First on the market to launch fiber at 10Gbps

Development of 5G in more than 350 cities

Drive on convergence, with cross benefits for TIM's fixed and/or mobile customers

New TIM Power portfolios offering fiber and 5G with security and assistance services

Launch of WIFI calling service

Consumer

In 2022, TIM continued its development of the network and new generation services, launching, after a one-year trial period, as the first operator in Italy to do so and among the first in Europe, a commercial service that takes **FTTH fiber connections**, offering high performance of up to 10 Gigabits per second, to homes, thanks to XGS-PON technology (10 Gigabit capable Symmetric Passive Optical Network).

The **TIM WiFi Power All Inclusive** offer yields not only **speeds of up to 10 Gigabits** but also the very best technology thanks to the TIM 10Gbit modem that assures a powerful, stable, secure connection in all areas of the home and dedicated assistance for an extremely high-level browsing experience. The offer flanks the other offers of the new TIM WiFi Power portfolio, Smart and Top with speeds of 2.5Gbit in download, launched in June.

TIM has continued to **develop the fixed UBB market, also with FWA technology**, in a logic that complements FTTx technologies to cover the areas not yet serviced. In 2022, the FWA offer was updated with strengthened connection performance and speeds of up to 100 Mega in download and up to 50 Mega in upload and with the launch of a new subscription offer called TIM WiFi Power FWA. The FWA offer is also available as pay-as-you-go, with speeds of up to 40 Mega.

Throughout 2022, TIM continued to support the adoption of new fiber technology with offers for ADSL customers already covered by the FTTCab and FTTH service to upgrade to the new technology without additional costs and leveraging on new offer content different to that of the market and, in particular, on the TIM Per TE Casa offer, dedicated to the Customer Base.

For **Mobile**, in 2022 TIM continued to support the development of Ultrabroadband, consolidating **4G** and developing **5G** in more than 350 cities with speeds of up to 2 Gigabits per second. In 2022, TIM also completed the **switch off of the 3G network**, making it possible to focus on investments in 4G and 5G technologies, which are more energy efficient and higher performing in terms of the quality of service offered to its customers.

Technological leadership means a competitive edge for TIM, which is fundamental for making it mark in a highly competitive market. Exploiting the distinctive quality of the network, TIM has been able to continue its "value" strategy, maintaining a premium position on the market, as borne out by the launch of the new **TIM 5G Power** offer.

TIM's **smartphone portfolio** has also focused on **5G**, further increasing the incidence of 5G products and extending 5G to include medium and medium-low range products with prices to the public of less than 200 euros.

- Thanks to the partnership between TIM and Santander Consumer Bank S.p.A. for the offer of a consumer credit platform dedicated to TIM's customers (through the Joint Venture **TIMFin**), TIM has successfully optimized its management of working capital and improved its credit risk management. TIM Mobile customers can buy products with payments by installments simply by activating a loan with TIMFin, as well as being able to access personalized, transparent financial and insurance solutions.

  The TIM distribution network, which has an agreement with TIMFin, includes around 3 thousand dealers and more than 5 thousand points of sale (PoS) and offers capillary coverage across the country. It is mainly involved in financing smartphones, which customers pay for by installments and in offering insurance products that are ancillary to the sale of smartphones.

  The TIMFin financing process is completely digital, through the use of OCR (Optical Character Recognition) tools, scoring algorithms to automatically assess customers, digital signature, OTP (One-Time-Password) to formalize contracts electronically and completely paperless documentation, so as to assure a quicker response to applications for financing and the best customer experience possible. The IT solution is entered into the information system that TIM makes available to its distribution network.

In short, the main data of TIMFin:

- an approximate total of 369 thousand loans were granted in 2022 for the purchase of devices, worth an equivalent of approximately 243 million euros (+41% on 2021);
- a total of 1,269 **personal loans** were granted in 2022, worth an equivalent of approximately 13 million euros.

As regards **insurance distribution**, together with the consolidation of “TIMFin Assicura Prestito” and “TIMFin Assicura Spesa”, starting March, in collaboration with Assurant, “TIMFin Assicura Smartphone” was launched as ancillary insurance coverage to smartphone sales, covering smartphone repair or replacement in the event of accidental damage and/or theft.

In 2022, TIMFin placed a total of 11,955 policies for an equivalent value of approximately 3.4 million euros in premiums collected.

In 2022, TIM continued to support the **optimization and growth of the convergent customer** with cross offers and benefits for TIM’s fixed and/or mobile customers, both through the TIM UNICA offer and with targeted convergent promotions.

With **TIM Unica** the advantages of being a TIM customer, both on fixed and on mobile, are strengthened: unlimited gigabytes gifted each month to the family, discounts on mobile offers of the TIM 5G POWER portfolio and on TV offers (e.g. TimVision promotion with Disney+, offering 3 months free), Local promotion for pushing fiber in critical areas (e.g. the Milan promotion). In addition, May 2022 saw the launch of the Fixed and Mobile promotion to increase new accesses.

Within the Consumer offers for the Family segment, in June 2022, **TIM WiFi Power TV** was launched, the range of offers whereby Fiber is commercially combined with other packages of TimVision content, offered up in special promotions. Again in June 2022, the convergent TIM WiFi +5G Power offer was launched, for families wanting to browse without limits and with ultra-fast fiber and TIM’s 5G.

Additional offers were launched during the year for the under-30s, with the **TIM WiFi Special Young** offer and low-income families, with the **Bonus Famiglia** offer (for families with ISEE income of less than €20,000), in view of the closure of the government initiative linked to the vouchers.

In addition, in order to guarantee a distinctive position, TIM has continued to promote and improve its portfolio of digital services, such as: TIM PEC, SPID, Cloud Service in partnership with Google, TIM One Number, Smart mobility and TIM MyBroker. In addition, in December, TIM launched the new WiFi calling service that makes it possible to talk using a smartphone where there is a lack of mobile coverage, using TIM’s WiFi connection.

Small and Medium Business Segment

In 2022, **TIM strengthened the positioning based on “connection strength” for the Small and Medium Business Segment too, launching 10 Gbps fiber**, the first to do so in the segment, also in the versions with a Guaranteed Minimum Bandwidth, for companies with more sophisticated connectivity needs, for which the new FWA (Fixed Wireless Access) connectivity offer has also been launched in 5G technology in the 26 GHz bandwidth (mmWave).

The fixed portfolio has also been revised, optimizing the premium quality of TIM services, both in terms of assistance (problem solving in 1 day) and performance (FTTH 2.5G and 10G) and transparency of tariffs (zero restrictions) and the **Voucher** offers were launched, dedicated to small and medium enterprises: both new customers and those already in the customer base. The offers have been constructed to maximize the target for disseminating fiber in Italy, thanks to business connectivity vouchers, available from March 2022, with an amount that varies from 300 euros to 2,500 euros.

On mobile, the new 5G Power portfolio has been launched, with the aim of better conveying the quality of the network and increasing the value of acquisitions, exploiting a range of appealing contents that can satisfy the new demands of business customers in an increasingly competitive market.

Reinforcement of commercial oversight of the most valuable customers with an increase in the number of customers managed in the caring portfolio and development of a dedicated caring model.

Consolidation of the **stores channel as a commercial Touch Point for VAT-registered small traders**.

Development of **specific content for the TIM Business digital channel** in order to increase the acquisitions of solutions for fixed, mobile and ICT offer for the SOHO market. Development of on-line services dedicated to customers on apps and the web.

Sustainability

TIM confirms its attention paid to the environmental impact with various initiatives, such as the **sale of regenerated smartphones**, exclusively Class A +, to guarantee the end customer top quality (only original spare parts) but minimizing accessories and packaging materials, as well as continuing to market “half card” SIMs (half the normal SIM card) and using recycled plastic for card carriers, thereby saving approximately 14 tons of plastic a year.

The “**TIM Next**” loyalty program for the Consumer segment continues, offering customers the chance to replace their smartphones with a new model, at the same time encouraging the collection and recycling of used smartphones, which are thus inserted into a correct regeneration cycle.

On the small and medium business (SMB) market, sales continue of reconditioned smartphones, to meet the needs of business customers looking to make sustainable purchases without renouncing performance and quality. Reconditioned products stand out for having the highest degree of reconditioning (first class), a 24-month warranty and a bundle pack with all-risk protection included in the price.

Data driven management of the customer base with a focus on quality and the customer experience

TIM conquers leadership of the Market Share Customer Base FTTH

One of the pillars of the TIM strategy is the optimization of the customer base, applying a data driven logic, with the target of revenue maximization. To this end, a transformation project is in progress for the construction of a fully-automated CVM platform based on machine learning algorithms and artificial intelligence to optimize investments and increase the effectiveness of the commercial actions.

Consumer

In 2022, CVM actions focused in particular on Convergence and cross selling:

- Launch of cross-selling campaigns on the TIM Mobile Only customer base with a focus on TIM Unica to increase penetration of the convergent customer base and churn prevention plans with targeted offers on the customer mobile line: 1.5 Mn TIM Unica Customers;
- NMP loyalty campaigns intended for specific fixed only customer targets with the aim of preventing churn;
- Increase in the CB FTTH Action Plan dedicated to the technological upgrade of the customer base, with customized campaigns according to the value and needs of the customer.

Small and Medium Business Segment

The 2022 actions for the small and medium-sized enterprises have been carried out on micro clusters defined according to the analysis of the needs of customers through the cross-matching of internal data and external databases and focused on:

- government push vouchers to facilitate the technological upgrade towards TIM's fiber in particular towards the FTTH.
- Upselling of payment options with additional gigabytes on mobile.
- Cross selling of fixed and mobile for a push on convergence.
- Push services on IT and VoIP differentiated by product category segment and needs.
- Prevention of higher value customers at risk, identified with the enrichment of data driven predictions.

The CVM platform has been strengthened to increase the effectiveness of the campaigns: the integration process has been completed with all channels in particular with the two channels (agencies and stores) that have significantly increased actions on the CB. Clustering instruments have been refined to improve control of the ARPU and optimize the economic results of the campaigns. New campaign monitoring instruments have been developed to guarantee the constant fine-tuning of selling and clusters.

Digital services: new content delivery model, turnkey ICT solutions and new innovative services

Consumer

In 2022 too, a key role in support of TIM's positioning is played by the important drive on contents with the consolidation of the **partnerships with Disney+ and Netflix** for entertainment and with **DAZN and Infinity+** for Football and Sports, above all Serie A TIM and UEFA Champions League.

TimVision is today the main aggregator of sports and entertainment content with the most complete and competitive offer on the Italian television market, also thanks to its partnerships with the main operators of the national and international market.

In order to strengthen and complete the commercial offer of TimVision, in August 2022, another important **partnership was launched with Amazon**, which made it possible for customers to add Amazon Prime to the TimVision offer (an add-on in exchange for payment).

Again with a view to the evolution of TimVision, the November start of the migration of the TimVision technological platform towards My canal, must be considered, which aims to guarantee, in line with European best practices, the very best experience of use and vision of contents for the end customer.

Small and Medium Business

On ICT, we have continued to work on the consolidation of the four areas that cover the main needs of the segment, starting from **Information Security**, through to **collaboration, IoT** and the **cloud**, intended as computing capacity as well as storage, data backup and the adoption of SaaS solutions. This has been achieved through a simplification of the sales processes and an extension of the portfolio with solutions that are increasingly tailored to the needs of SMEs.

Expansion of the ICT offer through **advanced connectivity solutions (VoIP) and partnerships** with major market players.

Brazil

2022 was marked by the success of the **5G launch** and TIM has confirmed its leadership in coverage with the new technology. The integration of Oi, with the migration of customers and integration of the network, is also an important result. Consequently, the company was able to sustain a solid growth rate in mobile revenues despite the macroeconomic challenges. As regards fixed solutions, TIM is focusing on a massive migration of customers from FTTC to FTTH to maximize their experience and profitability. Additionally, non-core initiatives, both in IoT and digital services, grew in terms of number of partnerships and contribution to our results.

- **Marketing and brand positioning**: we have strengthened the credibility of our brand, supporting the social development and digitization of Brazil, while at the same time strengthening the specificity of the network quality. We have used our results in developing the network - TIM was the first operator to cover 100% of the country's municipalities and has become leaders in 5G coverage - as essential elements of our communication to customers and stakeholders in general. TIM has also played a cutting-edge role in innovation in recent years and will continue to guide innovation through contents and partnerships, like those with Deezer and Amazon Prime Video and the sponsorship of Rock in Rio, the world's largest music festival, to strengthen the tie of the TIM brand with music and entertainment. We also developed many initiatives to solidify our institutional positioning, including the ESG agenda in the company strategy.
- **Mobile offers**: to accelerate growth beyond connectivity we continue scale up partnerships leveraging our user base and key assets to expand new businesses. We aim to become Brazil's favorite telco and have developed different offers for all segments. TIM has the best prepaid offer of Brazil, which through the musical streaming service DeezerGo and Amazon Prime Video, combines music and video contents. In the post-paid segment, we have continued to work on the consolidation of our position as innovators and were the first telco in Brazil to launch a free WiFi service during flights for TIM Black customers, thanks to an innovative partnership with the airlines Gol and LATAM.
- **Customer Experience**: we are constantly working to improve our customer experience and satisfaction through the use of technology. In this regard, the evolution of AI solutions and our digital channels are key. In the 2022 Perceived Quality and Satisfaction survey run by Anatel (National Telecommunication Agency) TIM Brasil remained in first place in the classification of mobile services and was rewarded with the Reclame Aqui RA 1000 certificate for excellence in customer service. The quality of our network was also recognized by Ookla Speedtest ranking, as TIM was appointed the best video and video conference experience while having the highest 4G availability.
- **Sales channels**: we maintained our focus on channel productivity, segmentation, and quality of sales. During 2021, we remodeled our digital channels while reorganizing our structure to increase focus on e-commerce and in-app purchases. In 2022, TIM created a sales app for independent retailers; through the app, TIM + Vendas, independent retailers, can register with the app to re-sell SIMs and top-ups of the company, thereby securing additional income.
- **Residential market**: in 2022, we are focusing on a massive migration of customers from FTTC to FTTH to maximize their experience and profitability, at the same time also consolidating the asset-light model to expand our presence through partnerships with neutral networks like I-Systems.
- **Corporate**: we consolidated our "Leaders with Leaders" strategy in agribusiness and launched the first IoT marketplace for B2B in Brazil by promoting IoT solutions through partnerships. In addition, we launched the FCA partnership for connected cars and for industry and mining we are developing a private LTE solution for business-critical use case management. In 2022, TIM pursued new opportunities to become a complete vertical orchestrator, such as, for example, monitoring and managing company fleets and smart lighting, meter reading and distribution automation solutions.

MAIN CHANGES IN THE REGULATORY FRAMEWORK

Domestic

In this section we report the main changes in the regulatory framework in 2022 in the Domestic region.

As regards the Antitrust proceedings, as well as the proceedings regarding the "28-day invoicing", see the Note "Disputes and pending legal actions, other information, commitments and guarantees" in the TIM Group Consolidated Financial Statements at December 31, 2022.

European regulations

Intra-European roaming regulation

The new Roaming Regulation 2022/612, which came into force on July 1, 2022, extends the advantages of roaming at national tariffs to European travelers within the European Union (Roam Like At Home) through to 2032 and introduces additional advantages and protection for consumers:

- quality of service: roaming providers shall be obliged to offer the same quality of service in roaming as is available nationally, if the same conditions are available on the network in the destination country;
- better access to and free emergency services;
- greater transparency regarding costs of added-value services;
- greater transparency regarding the costs of roaming on non-terrestrial mobile networks (ships and aircraft).

In addition, a further reduction is envisaged of the wholesale maximums to guarantee sustainability for operators:

		2022	2023	2024	2025	2026	2027
voice	€cent/min	2.2	2.2	2.2	1.9	1.9	1.9
SMS	€cent/SMS	0.4	0.4	0.4	0.3	0.3	0.3
data	€cent/GB	2	1.8	1.55	1.3	1.1	1

The European Commission should also assess the measures relating to intra-EU communication (calls and SMSs from one's own country to another Member State) and verify if, and to what extent, the maximums should be reduced to protect consumers after 2024.

2030 Policy Program "Path to the Digital Decade"

On December 19, 2022, Decision (EU) 2022/2481 of December 14, 2022 was published in the Official Journal of the European Union, instituting the strategic program for the 2030 digital decade. The decision came into force on January 9, 2023.

The decision partly redefines the digital objectives of the Communication from the European Commission COM(2021) 118 final of March 9, 2021 (the "Digital Compass" Communication):

- A digitally skilled population and highly skilled digital professionals with the aim of achieving gender balance: at least 80% of the population with basic digital skills and 20 million ICT specialists employed in the EU;
- secure, resilient, performant, sustainable digital infrastructures: in particular, the aims of Gigabit coverage to the termination point for all end-users of fixed networks and coverage of all inhabited zones with next generation, high-speed wireless networks offering performance at least equivalent to 5G and to install at least 10,000 peripheral nodes with zero climate impact and that are highly secure, distributed in such a way as to guarantee access to low latency data services (a few milliseconds) wherever the enterprises are located;
- digital transformation of businesses: at least 75% of businesses use cloud computing and/or big data and/or artificial intelligence; basic digital intensity level for at least 90% of the SMEs and doubling up of the number of unicorn (innovative) businesses;
- digitalization of public services: 100% of online digital public services; 100% of citizens with access to the electronic health files and digital identity.

The decision also envisages an annual cooperation mechanism with the Member States, which consists of:

- a structured, transparent, shared monitoring system based on the Digital Economy and Society Index (DESI) to measure progress made towards each of the 2030 objectives, a system of key performance indicators (KPIs) is currently being defined by the Commission by enforcement deed;
- an annual report on the status of the digital decade, in which the Commission will assess progress and recommend actions;
- strategic multi-annual roadmaps on the digital decade for each Member State, in which the policies adopted or planned must be indicated, as well as the measures implemented in support of the 2030 objectives;
- an annual structured framework to discuss and manage the areas with insufficient progress through recommendations and commitments shared between the Commission and the Member States;

- a mechanism by which to support the implementation of multinational projects.

Guidance on state aid in the favor of Broadband networks

On December 12, 2022, the European Commission adopted the new guidelines on State aid for Broadband networks (Communication C(2022) 9343 final), which revise the previous 2013 guidelines, in particular:

- market failure is redefined for the fixed networks and can now exist where the market is unable to supply and it is unlikely to supply end users with a speed of at least 1 Gbps in download/150 Mbps in upload. In black areas (with at least two fixed networks and at least 100 Mbps), the aid may be authorized if none of the networks present (or credibly planned) reach at least 300 Mbps in download;
- specific guidelines are given for mobile networks, where a market failure can exist in areas where a mobile network is not present or not credibly planned that can satisfy the needs of end users (including for specific use cases). In the event of legal obligations (e.g. connected with rights to use the radio spectrum), aid may be granted to cover only the additional costs linked to improving quality of service;
- guidelines are introduced regarding state aid in support of demand (vouchers) divided up into two categories: i) social vouchers intended for specific categories of users (e.g. low income) to acquire or maintain a Broadband connection; ii) Internet connectivity vouchers, which may be designed for broader categories of end users to incentivize demand, thereby excluding grants to maintain an existing service.

Digital Markets Act (DMA)

On October 12, 2022, the text of the Digital Markets Act (or "DMA", Regulation (EU) 2022/1925 of the European Parliament and of the Council of September 14, 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act).

The new Regulation aims to guarantee more contestable, fairer digital markets through the regulation of the main platforms managed by the gatekeepers (subjects with annual turnover in the European economic area in excess of 7.5 billion euros or average market capitalization in excess of 75 billion euros, as well as providing a platform service to at least 45 million end customers operating monthly and more than 10,000 business users operating annually). The Regulation scope excludes the electronic communication services and networks (other than those relating to interpersonal communication services regardless of the number).

Specific obligations and prohibitions are envisaged that the gatekeepers must observe to avoid incurring sanctions (up to 10% of the global annual turnover).

The obligations assigned to gatekeepers include, for example, that of allowing commercial users to offer the same products or services to end users through third party online intermediation services or their own online direct sales channel at prices or conditions that differ from those currently offered through the online intermediation services of the gatekeeper or that of allowing commercial users, free of charge, to communicate and promote offers, including at different conditions, to end-users acquired through the gatekeeper service or other channels and to stipulate contracts with the end users, regardless of whether or not they use the services of the gatekeeper. There is also an obligation for gatekeepers to make their interpersonal communication services interoperable via reference offers.

Prohibitions include, for example, self-preferencing of the products or services of the gatekeeper or the cross-use of data of customers also acquired through the sale of third party services.

The DMA envisages a period of adjustment to the new rules that will last through to early 2024. Specifically, the rules apply from May 2, 2023 with the Commission set to designate the gatekeepers for the first time in September 2023 and the platforms indicated as gatekeepers must comply with the new obligations and prohibitions laid down as from March 2024.

Digital Services Act (DSA)

On October 27, 2022, the text of the Digital Services Act (or "DSA", Regulation (EU) 2022/2065 of the European Parliament and of the Council of October 19, 2022 on a Single Market For Digital Services and amending Directive 2000/31/EC (Digital Services Act). The new Regulation aims to create a harmonized framework on an EU level of the specific obligations of diligence for certain intermediate service supplies, guaranteeing respect for the rights of on-line service users residing in the EU, regardless of the supplier's origin.

The addressees of the provision are suppliers of "Intermediate services" ("Mere conduit", "Caching", "Hosting", on-line intermediation platforms and large on-line platforms and search engines with more than 45 million users operating monthly). Different, gradually increasing obligations are envisaged depending on the type and size of the suppliers. The obligations envisaged include, for example, that of guaranteeing internal complaints management systems, any amicable resolution of disputes, preferential management for "reliable reporters", measures against repeated abuse, the traceability of commercial operators and transparent annual reports. Sanctions in the event of breach can be as high as 6% of turnover.

Most of the rules will apply starting February 17, 2024.

Network and Information System Directive (NIS2)

The new Directive 2022/2555 (NIS2), which replaces the current Directive 2016/1148 (NIS) came into force on January 16, 2023 and should be transposed into national systems by October 17, 2024 to then apply from October 18, 2024.

The NIS2 envisages an extension of the scope of application of these laws governing the security of networks and computer systems, including on the one hand, sectors currently covered by other rules, which are simultaneously abrogated (i.e. the security measures of electronic communication services and networks, currently included in the European Electronic Communications Code) and, on the other, extending the rules to new subjects (e.g. data centers, CDN, etc.).

The Directive maintains the obligation to adopt security measures that are commensurate to the risk, yet introduces a series of minimum requirements, including security management of the procurement chain and reviews the mandatory notification procedures of IT incidents.

Sanctions in the event of breach can be as high as 2% of turnover.

The Directive also envisages the strengthening of the bodies and supervisory bodies on a Community level, with the aim of improving collaboration to fight the global IT threat, thanks to the sharing of experience by Member States.

Connectivity package

On February 23, 2023, the European Commission presented a package of regulatory initiatives aiming to promote connectivity and, in particular, investments in the new Gigabit and 5G networks in order to help achieve the Digital Compass 2030 objectives. The measures include:

- Gigabit Recommendation: a draft new Recommendation regarding the regulatory approach (obligations lying with the operator with Significant Market Power - SMP) which the national authorities should apply in analyzing the fixed access markets to promote Gigabit connectivity. The Recommendation revises the 2010 NGA Recommendation and the Recommendation on the 2013 cost methodologies and non-discrimination measures. The final adoption will take place following the BEREC opinion expected for April 2023.
- Gigabit Infrastructure Act: a legislative proposal revising Directive 2014/61/EU on measures to reduce the cost of deploying high-speed electronic communications networks (transposed by means of Italian Legislative Decree no. 33/2016), which will become a Regulation named the “Gigabit Infrastructure Act” (GIA). The GIA includes symmetrical measurements relating to the access to the existing infrastructures to install elements of a Very High Capacity fixed and mobile network, to the access to the infrastructures and internal verticals of the buildings, to the coordination of civil works and permits to carry out works to install the networks.
- Exploratory consultation on the future of the connectivity sector: questionnaire to obtain stakeholders’ opinions on the market and technological evolutions in progress and their impact on the electronic communications sector. It also includes questions aiming to collect elements useful to assessing the possibility of envisaging a fair contribution to investments in connectivity infrastructures by all market players benefiting from the digital transformation.

Wholesale fixed-line markets

Fixed network access market analysis

The Resolution 348/19/CONS published on August 8, 2019 defines the obligations and economic conditions for wholesale access services for the period 2018-2021.

In November 2020, AGCom concluded the preliminary reliability assessment of TIM’s voluntary separation project for the creation of FiberCop (the Newco, controlled by TIM and in which KKR Infrastructure Fund and Fastweb have an investment, which on March 31, 2021 had acquired the secondary copper and fiber access network held by TIM and Flash Fiber).

With Resolution no. 637/20/CONS, published in December 2020, the Authority initiated the procedure relating to the coordinated analysis of the markets for fixed network access services pursuant to article 50-ter of the Code and, at the same time, launched the public consultation on the project for the voluntary separation of TIM’s fixed access network, the results of which were published in October 2021, with resolution no. 253/21/CONS.

The proceedings in question, which should come to an end in 2023, will update the regulatory framework of the markets of wholesale access services to the fixed network on the basis of changed competition conditions and new market structures, including the new corporate and organizational structure of TIM, currently being defined, and TIM’s undertakings in connection with the co-investment offer in a VHC network, presented in accordance with Articles 76 and 79 of the EECC, as will potentially be made binding by the Authority upon completion of their assessment.

TIM’s transformation plan

During the meeting held on July 6, 2022, TIM’s Board of Directors approved the strategic objective of reorganizing the company with a view to overcoming the vertical integration and conferred a mandate on the CEO to assess and submit to the administrative body for all necessary resolutions, any transactions or possible transfer and valuation agreements for certain Group assets, with a view to achieving this strategic objective.

The transformation plan, the execution of which will take approximately 15-18 months, in particular envisages the separation of the fixed network assets, including the primary and secondary networks in copper and fiber optic, of the domestic wholesale assets and equity investments held in FiberCop S.p.A. and Telecom Italia Sparkle S.p.A., which will flow into NetCo.

The separation plan of TIM’s fixed network announced to the market represents both on an infrastructural level and in terms of future governance, a clear overcoming of the separation model in FiberCop of only the secondary copper and fiber access network, notified to the Authority, in accordance with Art. 89 of the new Electronic Communications Code (ex art. 50ter CCE) on September 2, 2020.

Co-investment offer in a VHC network

On January 29, 2021, TIM notified the Authority of a co-investment offer for the development of a new fiber network in accordance with Articles 76 and 79 of the New European Electronic Communications Code (EECC) so that the conformity is assessed with said Art. 76 for the purpose of deregulating the new fiber infrastructure.

This offer was subsequently amended and supplemented by TIM in March, April and most recently in December 2021, in light of the indications provided by the Authority in the “Preliminary conclusions” sent to TIM upon completion of the market test launched by resolution no. 110/21/CONS.

The co-investment project is open to any supplier of electronic communication services or networks and it is the first case of European co-investment on a national scale and application of the new Code.

More specifically, the project will make it possible, by April 2026, to reach a total of 9.7 million UITs (Technical Property Units), out of the 13.9 million present in 2,549 municipalities.

On January 11, 2022, AGCom published resolution No. 1/22/CONS, launching the public consultation, which ended on February 9, 2022, on the regulatory treatment of FiberCop's fiber network concerned by the co-investment offer.

The resolution under consultation provides for the approval of the co-investment commitments that are made binding for a period of 10 years in accordance with Art. 76 of the new European Electronic Communications Code (EECC). More specifically, TIM will be bound to these commitments and not subjected to any additional regulatory obligation on the secondary fiber network in all municipalities in which at least one co-investment agreement has been stipulated between an alternative operator and FiberCop with reference to the following services:

- semi-GPON access;
- access to the installation and dark fiber infrastructures on the secondary network;
- access to the vertical segment for termination in fiber;
- any other access service that only applies to the secondary network concerned by the co-investment.

On May 16, 2022, the Authority notified the draft provision to the European Commission. However, on June 7, 2022, AGCom withdrew the notification following TIM's communication of a mechanism index-linking to the prices of the Co-Investment Offer to take into account the recent, sudden, significant increase in inflation. The index-linking mechanism was subsequently amended by TIM in July and October 2022, on the basis of the Authority's indications.

By resolution no. 385/22/CONS published on November 7, 2022, the Authority launched a market test on the index-linking mechanism of the prices proposed to brackets by TIM to determine the annual inflation rate to be applied to the prices of the co-investment offer starting 2023. The Offer also extends application of the economic conditions for 2021 to co-investors adhering by April 2023.

The investigations ordered by AGCom did not entail a complete overhaul of the procedure but rather merely assessed the conformity of the new prices with the criteria envisaged by the Code, also on the basis of the results of a specific market test, after which the notification in the European Commission will be renewed.

On February 9, 2023, the Authority notified TIM of its preliminary conclusions, asking for a revision of the index-linking model of the prices of the co-investment offer. The necessary analyses are currently in progress of the preliminary findings of the Authority, in order to prepare the Company's response.

2022 and 2023 prices for services of wholesale access to the fixed network

By resolution no. 337/22/CONS, subsequently supplemented by resolution no. 388/22/CONS, the Authority submitted for public consultation, which concluded on December 5, the 2022-2023 prices for the wholesale access services to the fixed copper and fiber network offered by TIM/FiberCop.

As clarified by the Authority, this measure had become necessary in order to guarantee, whilst awaiting completion of the coordinated analysis of access markets launched by decision no. 637/20/CONS, the necessary regulatory predictability for all operators on both the wholesale and retail markets and to avoid the retroactive application of economic conditions, as repeatedly requested by the European Commission.

The table below shows the proposal for 2023 for the prices of the main wholesale access services compared with the values approved for 2021, which have been confirmed as identical for 2022.

Services	2023 prices	2021-2022 prices (€)	Change (2023 vs 2021)
LLU GPON (not subject to *ex ante* regulation)	11.24	11.63	-3.2%
LLU	9.70	8.90	+9.0%
SLU	6.55	5.30	+23.5%
VULA FTTC	13.58	12.50	+8.6%
Dark fiber on primary - IRU 15 years	2,082.56	2,484.53	-16.2%
Dark fiber on secondary - IRU 15 years	1,431.80	1,563.1	-8.4%
VULA FTTH	14.13	15.35 (2021) 14.69 (2022)	-7.9%
Vertical in fiber	2.33	2.80	-16.8%
Vertical in copper	0.51	0.47	+8.5%

Source: AGCom – Resolution no. 337/22/CONS

The proposal reduces the spread between the wholesale fiber and copper access prices, encouraging on the one hand investment in the new FTTH networks, for both long-standing and new operators alike and on the other, the migration of customers from the legacy networks to the new fiber networks

After hearing the operators, the Authority will notify the European Commission of its draft order.

Infratel Tenders for the subsidizing of Ultrabroadband networks

The Italian Strategy for Ultrabroadband - "Towards the Gigabit Society", approved on May 25, 2021 by the Inter-Ministerial Committee for the Digital Transition (CITD), defines the action necessary to achieve the digital transformation objectives indicated by the European Commission in 2016 and 2021 - respectively with the Communication on Connectivity for a European Digital Single Market (the "Gigabit Society") and the Communication on the Digital Decade (the "Digital compass"), whereby it presented the vision, objectives and procedures for achieving the digital transformation of Europe by 2030.

These European digital transformation objectives develop around 4 cornerstones: (1) digital competences; (2) the digitization of public services; (3) the digital transformation of businesses; (4) the development of secure, sustainable digital infrastructures. As regards the latter, one of the objectives set by the European Commission is to allow all EU families, by 2030, to benefit from Gigabit connectivity and ensure that all inhabited areas are covered by 5G networks.

The Italian national recovery and resilience plan (PNRR) approved by the government on April 29, 2021 allocates 27% of resources to the digital transition, of which 6.7 billion euros for strategic Ultrabroadband projects, continuing on from the strategy launched by the government back in 2015.

In addition to aiming to complete the plan to cover white areas and the measures in support of the demand already launched ("vouchers"), the strategy also includes five additional public intervention plans to cover the geographic areas in which the offer of extremely high-speed digital services and infrastructures by market operators is absent or insufficient, set to be completed in the next few years.

The PNRR allocates 6.7 billion euros for Ultrabroadband projects, distributed over the following plans:

- "Italia a 1 Giga" plan (3.86 billion euros);
- "Italia 5G" plan (2.02 billion euros), of which:
    - No 4G/5G Areas (1 billion euros);
    - 5G corridors (0.6 billion euros);
    - 5G-ready suburban roads (0.42 billion euros).
- "Sanità Connessa" (Connected Healthcare) plan (0.50 billion euros);
- "Scuola Connessa" (Connected School) plan (0.26 billion euros);
- "Isole minori" (Minor Islands) plan (0.06 billion euros).

Through these measures, the government intends to bring forward to 2026 - and therefore a good 4 years - the 1 Gbit/s connectivity objectives for everyone and full 5G coverage of the populated areas fixed by the new European Digital Compass Strategy for 2030.

"Italia a 1 Giga" plan (3.86 billion euros)

The "Italia a 1 Giga" plan seeks to guarantee fixed 1 GB download and at least 200 Mbit/s in upload coverage in the gray and black areas where, until 2026, the plans of private operators cannot guarantee "reliable" connections with at least 100 Mbit/s in download.

In this context, in April 2021, Infratel Italia (the in-house company of the MED) started mapping UBB fixed coverage plans for 2021-2026 by all private operators, including FWA coverage on a total of 21.3 million gray and black addresses, as shown by the previous mapping.

The results of the fixed mapping were published on August 6, 2021.

Identifying coverage of 300 Mbit/s as the threshold for intervention, approximately 6.2 million road addresses lacking 300 Mbit/s coverage, have been identified as subject to intervention.

Following a public consultation on how to intervene, for the disbursement of public finance, bandwidths were used with regional or multi-regional based incentive models.

In the same streaming of the "Italia a 1 Giga" Plan, on October 13, 2021, Infratel launched a complementary consultation that was completed on November 15, 2021, in relation to the update of the mapping of fixed UBB coverage of the "White areas" of the 2016 UBB Plan, which includes a total of 11.8 million addresses:

- the addresses of the UBB bandwidths awarded to the public concession-holder Open Fiber S.p.A.;
- the addresses corresponding to approximately 450,000 property units situated in remote areas (referred to as "scattered houses"), not included in the previous public intervention plans.

The purpose of the mapping was to identify the addresses present in said areas, which have been excluded from the public intervention and which will not be reached in the next 5 years (9/30/21 - 9/30/26) by private investments able to guarantee a download connection speed of at least 300 Mbit/s at peak times.

On the basis of the coverage plans declared by Open Fiber and private operators, 1.6 million addresses have been identified not covered by 300 Mbit/s by 2026, which will be publicly financed for the completion of the "Italia a 1 Giga" plan.

The "Italia a 1 Giga" plan was notified to the European Commission on November 8, 2021 and approved on January 27, 2022.

On January 15, 2022, Infratel published the "Italia a 1 Giga" tender for the concession of public grants for the financing of investment projects to develop new telecommunications infrastructures and the related access devices able to supply services with a capacity of at least 1 Gbit/s in download and 200 Mbit/s in upload; the deadline is March 31, 2022.

The addresses involved in the tender (approximately 6.9 million) have been divided up into 15 lots with financing envisaged in the tender for 3.68 billion euros. Each offerer could be awarded up to 8 lots.

The public grant will cover up to 70% of the expenses incurred, while at least 30% will be paid by the beneficiary.

The results of the tenders were published on May 24, 2022 and are as follows:

- TIM has been awarded the following tenders: Sardinia (lot 1), Abruzzo, Molise, Marche and Umbria (lot 3), Piedmont, Liguria and Val d'Aosta (lot 4), South Calabria (lot 5), North Calabria-Cs (lot 11) and Basilicata (lot 14) for a total of approximately 1.6 billion euros;
- Open Fiber has been awarded the following tenders: Apulia (lot 2), Tuscany (lot 6), Lazio (lot 7), Sicily (lot 8), Emilia-Romagna (lot 9), Campania (lot 10), Friuli Venezia Giulia-Veneto (lot 12) and Lombardy (lot 13) for a total of approximately 1.8 billion euros.

The tender for Trento and Bolzano (lot 15) has been reproposed with a deadline of June 3 and was awarded to TIM on June 28, 2022 for a total of approximately 65 million euros.

On July 29, 2022, the Agreements were signed by Infratel and the operators that had been awarded the individual lots.

"Italia 5G" plan (2.02 billion euros)

The "Italia 5G" Plan envisages 5G coverage with 150 Mbit/s in download and at least 50 Mbit/s in upload in the following areas:

- European 5G corridors (2,645 km): 420 million euros;
- Suburban roads prepared for 5G (10,000 km): 600 million euros;
- No 5G/4G areas: 1 billion euros.

To identify the areas to be financed, Infratel has mapped the 2021-2026 4G and 5G mobile coverage plans of private operators, including the sites' fiber backhauling connections.

Upon completion of the consultation, the following have been identified as subject to public intervention:

- 13,200 mobile radio sites, which comprise approximately 18,600 BTSs (base transceiver stations) on which to implement fiber backhauling;
- 15% of the national territory where, however, only 1.6% of the population lives, but with important terrestrial road and rail transport routes to be covered in 5G.

These results have been submitted for public consultation through to December 15, 2021.

Following the results of the public consultation, on March 21, 2022, Infratel published two tender notices to foster the development, by 2026, of infrastructures for the development of 5G networks in the areas of the country in which the market does not invest:

1) Fiber backhauling notice;

2) New 5G sites notice.

The European Commission has approved the aid measure comprising both notices on April 25, 2022.

The deadline for submitting offers passed on May 9, 2022.

Fiber backhauling notice

The first notice envisages incentives on investments for the development of fiber optic connection of more than 10,000 existing mobile radio sites of up to 90% of their cost. It is divided into 6 multi-region lots and the tender is worth a total of 949,132,899 euros.

On June 13, 2022, all six lots were awarded to TIM for a total equivalent value of 725,043,820 euros.

On July 29, 2022, the Agreements were signed in connection with the individual lots between Infratel and TIM.

New 5G sites notice

The second notice encourages the development of new 5G mobile network infrastructures (fiber, infrastructure and electronic components) in more than 2400 areas of the country with transmission speed of at least 150 Mbit/s in downlink and 30 Mbit/s in uplink, again financed for up to 90% of the total cost.

The second notice is also divided up into 6 multi-regional lots but different to the others and the tender is worth a total of 974,016,970 euros.

The second notice for the development of new 5G sites failed to reach quorum requirements and was republished with amendments on May 20, with a deadline of June 10, 2022.

The new notice envisages financing of 567,043,033 euros on a smaller number of sites to be connected than previously (-50%).

On June 28, 2022, Infratel reported that all six lots had been awarded to INWIT S.p.A. forming a temporary grouping of companies with TIM and Vodafone for a total of approximately 346 million euros.

On July 29, 2022, the Agreements were signed in connection with the individual lots between Infratel and the corporate grouping led by INWIT S.p.A..

"Sanità Connessa" Plan

The "Sanità Connessa" plan aims to supply connectivity with symmetrical speed starting from 1 Gbit/s and up to 10 Gbit/s to approximately 12,280 health care structures throughout the country.

To implement the Plan, on January 28, 2022 Infratel called a tender for the supply of Ultrabroadband connectivity services at public health care structures throughout Italian territory, including the supply and installation of access networks and operation and maintenance services, with a deadline of April 11, 2022.

The tender envisages an allocation of 387 million euros and is divided up into 8 territorial lots; any individual subject can be awarded up to 4 lots.

The provisional award of the tenders was disclosed on June 6, 2022.

The total amount awarded was 314 million euros.

TIM was awarded two of the eight lots comprising the regions of Lombardy, Emilia-Romagna, Marche and Umbria, for approximately 78 million euros.

On September 20, 2022, the Agreements were signed in connection with the individual lots awarded between Infratel and TIM.

"Scuola Connessa" Plan

The "Scuola Connessa" Plan aims to complete the 2020-2023 School Plan launched by the government on May 5, 2020, with which the supply of Ultrabroadband connection was envisaged of up to 1 Gbit/¨s with 100 Mbit/s guaranteed to 35,000 school buildings (approximately 78% of the total), i.e. all buildings of the middle and secondary schools throughout the country and, in the "white areas", also the connection of all primary and nursery schools.

The 2020-2023 School Plan was run by Infratel that, from September to December 2020, organized a public consultation and posted a tender notice with public funding of 274 million euros divided up into 7 geographic lots (with a limit of two lots that can be awarded by the same bidder, who can submit bids for all lots).

On February 26, 2021, the award of the individual lots was reported.

The total amount awarded was 271 million euros.

TIM was awarded two of the eight lots, comprising the regions of Tuscany, Veneto, Marche, Abruzzo, Molise and Apulia, for approximately 84 million euros.

The new "Scuola Connessa" Plan aims to complete the public intervention that has already been launched, including the remaining 9,900 buildings, which will be supplied with connectivity at 1 Gbit/s with related technical assistance for 5 years.

To implement the Plan, on January 28, 2022 Infratel called a new tender, worth a total in excess of 184 million euros, for the supply of Ultrabroadband Internet connectivity services at schools throughout Italian territory, including the supply and installation of access networks and operation and maintenance services, with a deadline of April 11, 2022.

The tender is divided up into 8 territorial lots; any individual subject can be awarded up to 4 lots.

The provisional award of the tenders was disclosed on June 6, 2022.

The total amount awarded was approximately 166 million euros.

TIM was awarded four of the eight lots comprising the regions of Piedmont, Liguria, Valle d'Aosta, Tuscany, Lazio, Campania, Calabria, Sicily and Sardinia, for more than 99 million euros.

On September 20, 2022, the Agreements were signed in connection with the individual lots awarded between Infratel and TIM.

"Isole minori" Plan (0.06 billion euros)

The "Isole minori" Plan aims to provide adequate connectivity to 18 minor islands that today have no fiber optic connection with the continent. More specifically, the islands will be equipped with optic backhaul, which will allow Ultrabroadband connectivity to develop. Optic backhaul will be accessible to all operators through Submarine Backhaul Access Points identified according to the criterion of least distance from the neutral delivery point (NDP), if present on the island, and from the point of arrival of the undersea cable.

The total budget is 60.5 million euros.

The measure will be implemented through direct intervention. The new network will be entirely financed and owned by the state and will be managed by one or more operators chosen on the basis of a competitive selection process that is open, transparent and non-discriminatory.

The tender to identify the economic operators to which the design, supply and installation of the undersea optic fiber cables is to be entrusted for the development of the "Isole minori" Plan, was launched on November 18, 2021 and drew to a close on December 22, 2021. As the tender failed to meet quorum requirements, Infratel reproposed it, with amendments, on February 11, 2022, with a deadline of March 18, 2022 and the tender was awarded to the company Elettra TLC on April 28, 2022 for approximately 45 million euros.

Voucher Plan

The aim of the Plan, launched on May 5, 2020, with a total allocation of more than 1 billion euros, is to promote and offer incentive for the demand for Ultrabroadband connectivity services (NGA and VHCN) in all areas of the country, in order to increase the number of families and businesses that use digital services with high-speed networks of at least 30 Mbit/s.

Family vouchers

A first phase of intervention, launched on November 9, 2020, with a budget of 200 million euros, in favor of families with ISEE income of less than 20,000 euros, to whom a contribution of 500 euros is allocated (200 euros for connectivity and 300 euros for tablet or PC on free loan for use), met the need to address, during the early stages of the COVID-19 pandemic, the effects of the health emergency and guarantee suitable connection services to ensure continuity of the families' school and working activities. The first stage ended on November 9, 2021, a year after it started, as per the implementing decree. This measure has proven to be not much of an incentive: of the entire amount set aside of 200 million euros, no more than 93 million euros have been assigned. 210,000 bonuses have been assigned as compared to the 400,000 available.

On April 27, 2022, Infratel therefore launched a public consultation before starting a second phase of dispensing vouchers to families.

Total resources of 407,470,769 euros have been allocated for the intervention.

The aim of the intervention is to promote and offer incentive for the demand for Ultrabroadband connectivity services (NGA and VHCN) in all areas of the country, in order to increase the number of families that use digital services with high-speed networks of at least 30 Mbit/s.

The consultation expired on May 31, 2022. We are currently awaiting approval of the measure by the European Commission.

Company vouchers

The intervention offering incentive to companies, approved by the European Commission last December 15, 2021, was launched on March 1, 2022 and aims to facilitate the development of ultrafast internet connections for companies and the digitization of the production system.

Net of the amount attributed to communication costs and expenses accompanying the measures and the reimbursement of direct and indirect costs linked to the activity, the amount set aside for the disbursement of the vouchers is approximately 590 million euros.

Beneficiaries can request just one voucher to guarantee an increase in connection speed, from 30 Mbit/s to more than 1 Gbit/s, varying from a minimum of 300 euros to a maximum of 2,500 euros, according to the guaranteed download speed and contract term (from 18 to 24 months).

The Voucher Plan for businesses had an initial deadline of December 15, 2022, which was then extended to December 31, 2023.

The extension had been requested by the Italian government from the European Commission, considering that there was still more than 430 million euros available and also taking into account the May 2022 extension of the beneficiaries to also include professionals (natural persons with a VAT number operating an intellectual profession, self-employed or associated).

Wholesale mobile network markets

Mobile termination market analysis

On January 22, 2019, AGCom published its final decision on mobile network termination market analysis (resolution no. 599/18/CONS). In particular, AGCom established symmetric tariffs for all MNO and full MVNO operators for the period 2018-2021 (0.98 euro cents in 2018, 0.90 euro cents in 2019, 0.76 euro cents in 2020, 0.67 euro cents in 2021) and confirmed the absence of an obligation to check the termination prices for calls originating outside the European Economic Area (EEA); however, SMP operators cannot adopt termination rates that are higher than those applied to Italian operators by operators in non-EEA countries where rates are regulated.

In accordance with Delegated Regulation (EU) 2021/654 of the European Commission, a progressive reduction is expected in mobile termination prices in three years, so as to allow for a gradual transition towards the target price of 0.2 cents/min. in 2024: 0.67 cents/min until end 2021, 0.55 cents/min in 2022 and 0.4 cents/min in 2023.

Under certain conditions, which should in principle guarantee price reciprocity, these caps also apply to the termination of calls originating outside the EU.

Retail fixed-line markets

Universal Service

Net cost

Following ruling no. 4616/2015, published on October 2, 2015, in which the Council of State canceled decision no. 1/08/CIR of AGCom on the retroactive application of the new methodological criteria for calculating the net cost of the universal service (USO) relating to the 2004-2007 years, the Authority began the public consultation of the net cost of the total years 2004-2007 with resolution 89/18/CIR, published on July 3, 2018, and subsequent resolution no. 62/19/CIR, published on May 7, 2019. On September 11, 2019, the Authority published the final resolution concerning the Net Cost of Use for 2004-2007 (resolution no. 103/19/CIR) in which it recognized the existence of an unfair charge for TIM of a total of 113.4 million euros to be shared between all fixed-line and mobile operators. The share payable by the OAOs amounts to approximately 26.6 million euros, calculated net of installments already paid by the same operators, following the 2004 and 2005 procedures approved "illo tempore". In relation to past disputes, following ruling no. 3388/15 of the Council of State, published on July 7, 2015, on September 11, 2019, the Authority launched the public consultation procedure (resolution no. 102/19/CIR) for an in-depth fixed-mobile substitutability analysis, in line with the path outlined for the 2004-2007 years. In this context, ruling no. 6881 of October 8, 2019, in which the Council of State authorized the return of the shares paid by Vodafone to TIM, for the contested years (1999-2000 and 2002-2003). In light of the above-mentioned Council of State ruling, which completely reversed the Lazio TAR rulings no. 6458, 6459, 6461 and 6463 of May 23, 2018, in execution of which the public consultation pursuant to resolution no. 102/19/CIR was started, the Authority revoked the aforementioned resolution with decision 190/19/CIR.

On July 21, 2020, AGCom launched the public consultation relating to the review of the inequity of the net cost of the universal service 1999-2009. The extension of the time period subject to renewal until 2009 was necessary following the ruling no. 2542/2020 with which the TAR accepted Vodafone's appeal, in terms of fixed-mobile substitutability. The opinions on the years 2004-2007, renewed by AGCom with resolution 103/19/CIR, and on which the TAR has not yet expressed an opinion also hang on the same issue. In compliance with judgment 6881 passed by the Council of State, in its Resolution 263/20/CIR, the Authority defined a new approach to demonstrate the lawfulness of the participation of mobile operators at the net USO cost for the years in question. AGCom's view expressed in the consultation is to recognize prima facie the unfairness of the charge for the years 2002-2009. For the previous years 1999-2000, however, the Authority did not recognize the existence of an unfair charge for TIM.

On March 29, 2021, with the publication of resolution no. 18/21/CIR, AGCom confirmed the obligation of mobile operators to participate in the USO contribution mechanism for the years 2001-2009. Following a challenge of the resolution by Wind and Vodafone, the Ministry of Economic Development suspended the obligation for operators to make payment.

On February 17, 2022, the regional administrative court canceled resolution no. 18/21/CIR, upholding just one of the grounds for appeal submitted by the OAOs challenging the threshold parameter related to the unfairness of the expense (2nd facie) with regards to the economic and financial impacts on the appointed party. Instead, the additional grounds for appeal of the OAOs were rejected by the court.

On June 27, 2022, AGCom published resolution no. 1/22/CIR, suspending the terms established by resolution no. 92/21/CIR, already extended by resolution no. 58/22/CONS and resolution no. 143/22/CONS.

The judgments given by the regional administrative court were appealed against by TIM and AGCom before the Council of State, as well as incidentally by Vodafone, Wind and Fastweb. The Council of State hearings have been scheduled for April 4 and 27, 2023.

Guidelines for voluntary withdrawal

With resolution no. 487/18/CONS, the Authority regulated the ways operators must manage dissolution and transfer methods for user contracts.

TIM challenged the resolution regarding the provisions that limit the right to fully recover the costs in case of withdrawal (discounts from promotions, product installments). The administrative judge dismissed TIM's appeal, as the guidelines would not be directly damaging. TIM once again appealed against Resolution no. 487/18/CONS as a prerequisite for Resolution no. 591/20/CONS by which AGCom ordered TIM to pay an administrative fine for violation of Resolution no. 487/18/CONS regarding withdrawal. In March 2022, the regional administrative court of Lazio rejected the appeal and TIM appealed.

Freedom to choose modems

With resolution no. 348/18/CONS, the Authority ratified the principle of user freedom to choose modems for Internet access.

TIM challenged the resolution in relation to the transitional provisions for customers who have an internet offer combined with a modem for a fee (sale and rental) in the months preceding the entry into force of resolution no. 348/18/CONS (December 1, 2018). At end 2018, these transitional provisions were suspended whilst awaiting scheduling of the hearing at the Regional Administrative Court of Lazio, set for October 23, 2019. On January 28, 2020, the Regional Administrative Court rejected TIM's petition in first instance; it has therefore submitted an appeal.

In May 2020, TIM notified its customers who had signed up for an Internet access and installment modem purchase offer before December 1, 2019, that they had the option to sign up for an equivalent Internet offer without a modem and an allowance for the remaining installments. By signing up for the equivalent offer, the residual debt in installments on the customer's bill for the purchase of the modem would not be due, this did not entail any additional charges for the customer or implied changes to the financial and contractual terms and conditions for using the active services on the line.

On August 2, 2021, the Council of State definitively rejected TIM's appeal.

Retail mobile network markets

Premium Services

In February 2021, with resolution no. 10/21/CONS, AGCom adopted new measures related to the implementation of digital services with contents in subscription from mobile network. In particular, default barring has been envisaged on the SIMs, namely an inhibition to purchase these services, which can be removed by prior express decision of the customer, and a customer consent acquisition process for individual purchases, through the entry of a temporary password (an "OTP"). This resolution has been appealed against by TIM before the Regional Administrative Court.

By resolution no. 91/22/CONS, AGCom ordered TIM to implement the procedure for acquiring evidence of customer consent in the event of the purchase of TIM-branded digital services. The assessment of TIM's compliance is in progress. This resolution has been appealed against by TIM before the regional administrative court on additional grounds.

In February 2023, the Lazio Regional Administrative Court on the one hand partially canceled resolution no. 91/22/Cons, noting that it was unlawful in the part relating to the definition of the sanction, which will now be redetermined by the Authority and, on the other hand, rejecting the main appeal against resolution no. 10/21/CONS. The Company is currently deciding what the next steps are.

Quality of Services

Quality of services included in the universal service

The new Electronic Communications Code (introduced by Legislative Decree no. 207/2021, which came into force on December 24, 2021) abrogated Art. 61 of the previous Code, which established a fixing mechanism, with resolutions passed by AGCom, of annual targets for the Quality of the universal service that TIM was required to assure as failure to do so would lead to the payment of administrative fines.

The new Code also included Broadband Internet access in the universal service. In this respect, by resolution no. 162/22/CONS, published on June 10, 2022, AGCom launched the procedure aimed at defining, in light of national circumstances and minimum bandwidth available to the majority of consumers in Italy (and taking into account the report by BEREC on best practices), what exactly is an adequate access service to Broadband

Internet, necessary to guarantee the participation of all residents in society's social and economic life. Internet access must be able to supply the bandwidth necessary to support at least the minimum set of services pursuant to Annex 5 of the new Code. Thereafter, on December 28, 2022, AGCom submitted a draft order for consultation (resolution no. 421/22/CONS), in which it suggested that adequate Internet access to be guaranteed by way of universal service was a value of 4 Mbps in download. The proceedings are ongoing.

Quality of mobile and personal services

By resolution no. 23/23/CONS, AGCom updated the regulation governing quality and mobile and personal service charters and the regulation of the campaigns for measuring quality of the Broadband data service. The new resolution, amongst others:

- incorporates certain measures envisaged by Regulation (EU) no. 2015/2120 and the related BEREC guidelines on the access to open Internet and, in particular, the obligation to indicate, in the contracts offered by mobile operators, the estimated maximum speed and the publicized speed in both download and upload;
- introduces the obligation to include maps of coverage for the various technologies on operator websites, with a covered pixel granularity of no more than 100 m2.

Quality of electronic communication services from a fixed location

By resolution no. 405/22/CONS, AGCom started proceedings set to group together and update the regulation governing quality and fixed voice communication service charters and quality and service charters for accessing Internet from a fixed location. The regulation being issued will, amongst others, incorporate certain measures envisaged by Regulation (EU) no. 2015/2120 and the related BEREC guidelines on the access to open Internet and, in particular, the obligation to indicate, in the contracts offered by fixed network operators, the maximum speed, the speed usually available and the publicized speed in both download and upload. The proceedings are ongoing.

Quality of customer assistance service in the electronic communications sector and audiovisual media services

By resolution no. 436/22/CONS, AGCom started proceedings set to update the regulation governing the quality of telephone assistance service to customers in the electronic communications sector, extending it at the same time to include regulation of the digital assistance channels and media-audiovisual sector assistance services. The proceedings are ongoing.

Authority fees

AGCom contribution fee

On January 17, 2023, AGCom issued resolutions no. 409/22/CONS, 410/22/CONS and 416/22/CONS relating to the payment of the AGCom contribution fee for the year 2023 (calculated on the 2021 financial statements figures). The guidelines for calculating the contribution fee are unchanged compared to the guidelines for calculating the 2022 contribution fee. For 2023, AGCom has increased the rate, taking it to 1.40 per thousand for electronic communications market and to 2.00 per thousand for "media" services. On the basis of this rate, TIM paid around 16.116 million euros under reserve.

Privacy and personal data protection

General Data Protection Regulation (GDPR) and updates to the Privacy Code

In order to guarantee - in TIM and under the scope of the Group Companies - the conformity of personal data processing with the GDPR and the Personal Data Protection Code (Italian Legislative Decree no. 196 of June 30, 2003), TIM adopts all the initiatives necessary to comply with said provisions.

More specifically, in 2022, a project was launched to revise TIM's privacy model, which resulted in the update of the processing register and the texts of all disclosures on personal data processing, provided by TIM and the other Group companies to different types of Data Subjects (e.g. customers, employees, visitors). The manual for drafting the Privacy Impact Assessment and the policy for the exercise by data subjects of their privacy rights were updated, taking into account, amongst others, the amendments made to Art. 132 of the Privacy Code by Italian Legislative Decree no. 178 of November 23, 2021.

The "System of rules for the application of legislation on personal data protection in the Telecom Italia Group" policy, which is the set of operating rules and regulations governing personal data processing in accordance with the provisions of applicable law and regulations, defined specifically for the TIM Group, is kept constantly up-to-date and is available on the corporate intranet.

TIM's Privacy Department annually schedules specific training plans to raise awareness in the various company departments and illustrate the policies and procedures issued for applying the legislation on personal data processing.

Spectrum

In July 2020, with resolution 338/20/CONS, AGCom adopted a decision in favor of renewing for eight years until 2029 the rights to use of the TIM, Vodafone, Iliad and Wind/H3G FDD spectrum in the 2100 MHz band, which had initially been released for the 3G/UMTS service (2x15MHz for TIM and Vodafone, 2x10 MHz for Iliad, 2x5 MHz for Wind/H3G and 2x15 MHz for Wind/H3G, already extended). For the purpose of the renewal, in April 2021, TIM had paid approximately 240 million euros. On January 17, 2022, the Court of Auditors registered the Ministerial Decree of extension, consequently notified to the MNOs concerned on February 4, 2022. Finally, by resolution no. 147/22/CONS, AGCom authorized closure of TIM's 3G/UMTS service starting June 1, 2022. The frequency resources thus released will be used to strengthen the capacity of the LTE network.

In March 2022, by resolution no. 66/22/CONS, AGCom consented to the request to extend the rights to use TIM's frequencies in the 3.4-3.6 GHz bandwidth (2x21 MHz in 9 regions of southern Italy), which expire in 2023 and the exchange of a block of 20 MHz with Linkem. This exchange allows TIM to hold 20 MHz nationally on said bandwidth, taking the total available in the bandwidth 3.4-3.8 GHz to 100 MHz. For the purpose of the extension to May 2022, on the basis of the request made by the Ministry of Economic Development, TIM paid approximately 5 million euros to renew the rights of use through to December 31, 2029. We are currently awaiting the extension Ministerial Decree.

In June 2022, by resolution no. 157/22/CONS, AGCom expressed its opinion in favor of the request to extend the duration of the rights of use of the WLL radio network spectrum in TIM's band 27.5-29.5 GHz (2x112 MHz FDD) for a further seven years, until December 31, 2029. In exchange for the extension through to July 2022, TIM paid, on the basis requested by the Ministry of Economic Development, approximately 9.68 million euros. We are currently awaiting the extension Ministerial Decree.

Ukraine emergency

In light of the declaration of the state of emergency of the Italian government, resolved by the Council of Minsters on February 28, 2022, aimed at assuring, through to December 31, 2022, aid and assistance to the Ukrainian population on national territory, TIM, just like the other operators, voluntarily started major solidarity initiatives in support, in particular, of its Ukrainian customers living in Italy, to allow them to communicate free of charge or at special prices with their family members in Ukraine.

Similarly to in the past for previous emergencies and, most recently, during the COVID-19 pandemic, AGCom has established a technical working group for discussion with operators, in order to share information and discuss additional initiatives that may be planned in the medium-term in support of the Ukrainian population.

With the support of the European Commission, on April 8, TIM also signed a joint declaration, together with other EU and Ukraine operators to provide affordable or zero-rated roaming and international call services between the EU and Ukraine. The joint declaration seeks to provide a more stable context in which to help the Ukrainian evacuees throughout Europe to stay in contact with friends and family.

New benefits for disabled consumers

With Resolution no. 290/21/CONS, the Italian Communications Authority (AGCom) defined the new regulation for users with disabilities.

This resolution extends the current beneficiaries of electronic communication services, extending the special tariffs of fixed and mobile network services, currently only granted to the blind and deaf, to also include disabled users with major limitations to walking. To this end, an experimental phase of application of the measures is envisaged, expected to last twelve months, but which may be extended, to obtain information about the new beneficiaries and the effectiveness of the measures adopted. The new beneficiaries could submit requests to adhere within a 90-day time frame running from January 1 to April 1, 2022, with benefits set to start on Saturday, April 30, 2022.

TIM, which has always paid close attention to the needs of disabled users, has decided to apply the benefits of the mobile offer to disabled users with major limitations to their walking, four months early, and therefore from January 1, 2022.

Golden Power

Decree-Law no. 22 of March 25, 2019 (converted, with amendments, by Italian Law no. 41 of May 20, 2019), extended the exercise of the special powers to also include the 5G technology Broadband telecommunications network.

The legislative framework governing the matter has been further enhanced by Decree-Law no. 105 (converted, with amendments, by Italian Law no. 133 of November 18, 2019) setting out "Urgent provisions on the national cyber security perimeter". Most of the implementing measures defined in said Decree-Law called for the issue of the following provisions:

- Decree of the President of the Council of Ministers (DPCM) regarding the regulation for the definition of the terms and criteria by which to identify the subjects included in the cybernetic security perimeter and criteria to be used to prepare the list of networks, sensitive information systems. The DPCM came into force on November 5, 2020;
- Administrative deed of the President of the Council of Ministers identifying the subjects included in the scope. Issued in December 2020;
- Decree of the President of the Council of Ministers (DPCM) regarding the definition of the procedures for notifying "incidents" impacting the systems to the CSIRT (Computer Security Incident Response Team) and the measures necessary to guarantee high security levels. The Decree was published in the Official Journal on June 11, 2021 and came into force on June 26, 2021;
- Decree of the President of the Republic (DPR) regarding the definition of the notification process to the CVCN (National Assessment and Certification Center) of the critical infrastructure other than 5G and for 5G devices supplied by European vendors: the regulation was published in the Official Journal on April 23, 2021 and came into force on May 8, 2021;
- definition of the type of verifications and tests on hardware and software that can be carried out both under the scope of Golden Power and CVCN. The Regulation came into force on April 23, 2021;
- Decree of the President of the Council of Ministers (DPCM) whereby the categories of goods and services to be notified to the CVCN are identified. The Decree was published in the Official Journal on August 19, 2021 and came into force on May 9, 2021;
- Decree of the President of the Council of Ministers (DPCM) whereby the criteria are defined that the CVCN needs to use to identify the laboratories accredited to perform security/vulnerability tests. The Decree was published in the Official Journal on July 15, 2022 and came into force on July 30, 2022. With the publication

in the OJ of the Decree of the President of the Council of Ministers, the implementation of the national cyber security perimeter was completed.

Decree Law no. 23 of April 8, 2020 (adopted with amendments by law no. 40 of June 5, 2020) substantially amended the general **corporate Golden Power** regulation: also in relation to the communications sector, the obligation to notify of participations by foreign entity companies, including those outside the European Union, has been extended, in cases where the transaction is likely to determine the control over the company in which the equity investment was purchased.

In addition, note Decree-Law no. 21 of March 21, 2022, converted into law with amendments by Law No. 51 of May 20, 2022, which introduced additional provisions on the matter:

- the rule of **Golden Power for 5G has been completely amended**. The obligation of notification ex ante of an annual plan has been introduced, which includes all purchases (not only those made by non-EU subjects). The plan must provide indications on the development prospects of the 5G network and a detailed framework of the procedures for developing the digitization systems;
- **corporate Golden Power strengthened**. The Government can exercise its rights of veto not only in cases of merger/spin-off but also in the event of changes to ownership, control or availability of assets. Also introduced joint notification of the transaction for both the acquiring company and the target company.

Lastly, Decree-Law no. 187 of December 5, 2022, converted with amendments by Law no. 10 of February 1, 2023, introduced measures to protect the national interest in the strategic production sectors. More specifically, Art. 2 bis integrates AGCom's competences, assigning it the task of identifying the technical standards of fiber optic cables with which the successful bidders awarded the tenders for the development of the fiber optic network infrastructure, must comply.

Urgent measures for simplification and digital innovation

As regards the measures by which to speed up the country's infrastructure process, in continuity with Decree Law no. 76 of 2020, the "Simplifications Decree", additional measures to simplify have been introduced, which are summarized below.

- **Decree Law no. 77/2021** "Governance of the National Recovery and Resilience Plan and first measures to strengthen the administrative structures and speed up and streamline the procedures", which introduced important simplification measures to speed up completion of both the 5G networks and networks in optic fiber and Ultrabroadband. The Decree was definitively approved, with amendments, by Law no. 108 of July 29, 2021.
- **Decree-Law no. 21/2022**("Ukraine"), converted into law with amendments by Law no. 51 of May 20, 2022, which introduced additional measures to simplify the installation of telecommunications networks, envisaging:
    - the elimination of the obligation to submit documentation related to the electromagnetic emissions for the installation of infrastructures, such as poles, towers and pylons used to host the radioelectric plants;
    - benefits for developing TLC networks awarded with concession tenders. More specifically, the holders of concessions for the development of telecommunications networks awarded with tender procedures can proceed to carry out works also through their subsidiaries and in derogation of any conventional clauses.
- **Decree-Law no. 36/2022** ("PNRR2"), converted into law with amendments by Law no. 79 of June 29, 2022, which introduced new measures in favor of electronic communications companies. More specifically, by means of timely changes to the Electronic Communications Code, additional simplifications have been introduced to the authorization procedures for radioelectric plants and the reach of the ban imposed on local entities to charge operators for occupying public land, has been extended. In addition, until December 31, 2026, there is no need to complete the incidence assessment procedure for digs less than 200 meters long needed to install Ultrabroadband infrastructure.
- Decree-Law Decree no. 13/2023 (the "PNRR3"), being converted into law, introduces additional measures for the simplification of the procedures of installing Ultrabroadband infrastructures (Art. 18). The regulatory interventions regard:
    - the simplification of the process for the release of traffic orders;
    - the 24-month extension of authorizations for UBB infrastructures;
    - the introduction of simplification measures for the issue of seismic authorization;
    - the exemption from the obligation to obtain environmental authorizations for interventions carried out using the micro-trench technique;
    - the harmonization of municipal competences on the installation of TLC plants with framework law 36/2001;
    - the extension of the subjects called to attend the service conferences;
    - the presentation via certified e-mail of authorizations for the installation of mobile telephony systems
    - coordination instructions between the excavations decree and CCE on the ban on imposing charges/expenses.

2021 annual draft law for the market and competition

The Council of Ministers of November 4, 2021 approved the 2021 annual draft law for the market and competition.

The draft law has the following aims:

- to promote the development of competition, also with a view to guaranteeing access to the markets of small enterprises;
- to remove the legislative and administrative regulatory obstacles to the opening of the markets;
- to guarantee consumer protection.

With specific reference to the provisions, introduced by the text, related to competition, development of digital infrastructures and telecommunication services, the following are pointed out:

- **fiber optic network developments**: an obligation to coordination between infrastructure managers and operators in the event of civil engineering works;
- **block and activation of premium services and acquisition of evidence of consent**: greater consumer/user protection is offered for the supply of digital contents provided both through SMS and MMS and data connection, with debiting against telephone credit or billing, offered both by third parties and directly by the operators;
- **procedures for the development of new generation infrastructures**: in the event of refusal to access, detailed reasons for the refusal must be given (also attaching photographic/technical documentation). For the other provisions, no substantial changes are highlighted with respect to that provided for to date.

The parliamentary procedure for approval concluded with the publication in the Official Gazette of the Italian Republic of Law no. 118 of August 5, 2022.

New Electronic Communications Code

Italian Legislative Decree no. 207 of November 8, 2021 setting out the "Implementation of Directive (EU) 2018/1972 of the European Parliament and of the Council of December 11, 2018, establishing the European Electronic Communications Code, was published in the Official Journal on December 9, 2021 and came into force on December 24, 2021.

The new Code reviews and replaces the previous regulatory framework and introduces important new features including, in particular, the following:

- **to foster the copper-fiber migration of customers**: the user must allow operators to perform technological adaptation works on the access networks, aimed at improving the connection (without changes to the economic conditions);
- **contract duration**: provide for an initial contract duration of no more than 24 months and introduce at least one commercial offer of a maximum initial duration of 12 months;
- **sanctions**: far more severe, particularly as concerns violations of user protection;
- **right of withdrawal in the event of *ius variandi***: extension of the deadline to exercise the right of withdrawal (60 days from communication of the contractual changes instead of 30 days);
- **right of withdrawal**: it is stressed that the provisions of art. 1 of Decree Law 7/2007 (Bersani Decree Law) remain in place but the deactivation cost should be eliminated in the event of termination/withdrawal after contract expiry (12/24 months) and the faculty is introduced for the customer to return the network terminal equipment before the agreed contract end date, at no extra cost;
- **Universal Service**: inclusion of the service to access Broadband Internet with a bandwidth that enables the inclusion of all citizens in the country's social and economic life (Art. 94). AGCom currently has proceedings in progress aimed at defining the adequate bandwidth. A review is envisaged of the existing obligations, by the Minister, by December 21, 2022 (deadline not respected) and thereafter every 3 years (Art. 97). In particular, the Code draws a distinction between coverage obligations and obligations relating to the supply of services.

In March 2022, AGCom started a technical working group with operators to discuss the changes to the existing regulatory framework on the protection of users as a result of the coming into force of the new Electronic Communications Code. Following the discussion, specific public consultations are expected.

Expensive energy prices

In order to fight the rise in prices of gas and electricity, in 2022 the Government took numerous urgent legislative steps to support energy-intensive and less energy-intensive businesses. Below are the decree laws that were adopted, with a brief explanation of the main measures.

Decree Law no. 4/2022 ("Support Ter Decree")

- **Zeroing of the system charges for the increase in prices in the electricity sector 1st quarter 2022**: cancellation of rates relating to the general system charges applied to users with available power of 16.5 kW or more.

Decree Law no. 17/2022 ("Energy")

- **Zeroing of the system charges for the increase in prices in the electricity sector 2nd quarter 2022**: cancellation of rates relating to the general system charges applied to non-household low voltage customers for other uses, with available power of up to 16.5 kW and rates relating to the general system charges applied to users with available power of 16.5 kW or more, including connected by medium and high/very high voltage or for use for public lighting or to charge electric vehicles in places accessible to the public;

- **Support with the liquidity needs of businesses consequent to the increase in energy prices**: the validity of conditions to obtain the SACE guarantees given to companies has been extended through to June 30, 2022, to support the liquidity needs resulting in order to fight the increase in energy prices.

Decree Law no. 21/2022 ("Ukraine")

- **Tax credit in favor of companies to purchase electricity 2nd quarter 2022**: companies with electricity meters of 16.5 kW or more, in the event of an increase in the cost per kWh in excess of 30% (average 1st quarter 2022 vs average 1st quarter 2019), a tax credit of 12% is recognized.

Decree Law no. 50/2022 ("Aid")

- **Tax credit for the 2nd quarter 2022** increased from 12% to 15%.

Decree Law no. 80/2022 ("Bills")

- **Zeroing of the general system charges in the electricity sector 3rd quarter 2022**: cancellation of rates relating to the general electricity system charges applied to low voltage users with available power of up to 16.5 kW and to users with available power in excess of 16.5 KW, including connected by medium and high/very high voltage or for use for public lighting or to charge electric vehicles in places accessible to the public;
- **Reduction in VAT and general charges in the gas sector**:
  - supplies of methane gas used for combustion for civil and industrial uses, calculated in the invoices issued for estimated or effective consumption during the months of July, August and September 2022, are subject to a VAT rate of 5%;
  - confirmation of the rates relating to the general system charges in force in 2Q22;
  - reduction in the rates relating to the general system charges up to the amount of 240 million euros, with particular reference to the consumption brackets of up to 5,000 cubic meters per year.

Decree Law no. 115/2022 ("Aid Bis Decree")

- **Zeroing of the general system charges in the electricity sector 4th quarter 2022**: cancellation of rates relating to the general system charges applied to users with available power in excess of 16.5 kW, including connected by medium and very high voltage or for use for public lighting or to charge electric vehicles in places accessible to the public;
- **Extension of tax credit 3rd quarter 2022:** for electricity (15%) and gas (25%);
- **Extension of VAT at 5%** for methane gas supplies for consumption for the 4th quarter 2022;
- **Extension of the "sterilization" of general system charges in the natural gas sector 4th quarter 2022**: confirmation of the rates of general system charges in force in the 3rd quarter 2022.

Decree Law no. 144/2022 ("Aid Ter Decree")

- **Tax credit for energy and gas for October and November 2022** with extension of the reference basin (from 16.5 kW to 4.5 kW) and the tax credit value (30% electricity and 40% gas);
- **Extension through to November 18, 2022 of the cuts to excise duties** on energy products used as fuel (petrol, diesel and liquefied petroleum gas (LPG) used as fuel and VAT on fuel.

Decree Law no. 176/2022 ("Aid Quater Decree")

- **Extension of tax credit for December 2022 too:** for electricity (30%) and gas (40%).

Law no. 197 of December 29, 2022 (the "2023 Budget Law")

- Increase in value of the **tax credit** for energy and gas for 1Q23 (35% electricity and 45% gas);
- zeroing for the 1st quarter 2023 of **general system charges** in the electricity sector but only for low voltage users with available power of up to 16.5 kW;
- **extension of VAT at 5%** for methane gas supplies for consumption for the 1st quarter 2023.
- **extension of the "sterilization" of general system charges in the natural gas sector for the 1st quarter 2023**: confirmation of the rates of general system charges in force in the 4th quarter 2022;
- elimination of system charges to finance nuclear decommissioning.

Brazil

Revision of the model for the supply of telecommunications services

In 2019 Law 13879 was approved, that came into force on October 4, 2019, establishing a new regulatory environment for the regulation of telecommunications in Brazil. This is the most significant change in 20 years.

The new telecommunications framework allows fixed-line licensees to adapt their contracts from a concession scheme to an authorization scheme. This transition from concession to authorization must be requested by the licensee and requires the approval of the Anatel ("Agencia Nacional de Telecomunicações"). In return, licensees must, among other conditions, make a commitment to investment in expanding fixed Broadband telephony services to areas with no adequate competition for these services, in order to minimize inadequacies and inequalities between areas of Brazil.

The change also affects the roles for authorizing the use of radio frequencies, establishing subsequent renewals (currently limited to only one) and allows the exchange of radio frequencies between operators (secondary spectrum market).

In June 2020, Decree 10402 was published, which governs the procedure for adapting the concession to the authorization regime, as well as the definition of the criteria for calculating investment commitments. The Decree also established guidelines for the extension of radio frequency authorization, which will be held by Anatel to guarantee greater security for investments in the sector.

Public policies applicable to the telecommunications sector

Decree 9612/2018 (“Connectivity Plan”) established another series of important rules, with a series of guidelines for the adaptation of conduct terms, the onerous concession of spectrum authorization and regulatory acts in general, including: (i) expansion of high capacity telecommunications transport networks; (ii) increased coverage of mobile Broadband access networks; and (iii) broadening the coverage of fixed Broadband access network in areas with no Internet access through this type of infrastructure. This Decree also establishes that the network resulting from the commitments must be shared from the moment it enters into service, except where there is adequate competition in the relevant reference market.

In relation to the deadlines for the development of pipelines not compliant with current regulations, authorizations for user licenses to radio frequencies, and the introduction of other statutory provisions generally, planned investments (as identified by Anatel and approved by the MCTI Ministério da Ciência, Tecnologia e Inovações) will focus primarily on the expansion of mobile and fixed-line Broadband networks and on specific areas of the country. Telecommunications networks built under the investment plan will have shared access. The decree was amended by Decree 10,799/2021, which included priorities for the coverage of public policies, including coverage of the “areas of census with public schools”; coverage of towns not served by mobile telephone and the expansion of fixed access to Broadband in places without access. The decree was amended by Decree 11299/2022, which envisaged the possibility of a private federal network managed exclusively by Telebras (Brazilian state company).

The decree also provides for the assignment of funds for the approval of projects approved by Connected Cities and for the temporary supply of fixed or mobile Broadband. In addition, it regulates the private federal network, which can be carried out by other public or private entities or organizations and the criteria for the use and management of the network will be defined by the Federal Government under the terms established in a deed of the Ministry of State for Communications.

In 2020, the decree No. 10480/2020 was published by the federal government, which regulates the antennas law (law 13116/2015) with the purpose of stimulating the development of the telecommunications network infrastructure. This decree fosters development of telecom network infrastructure and is a major step towards unlocking historical problems in the sector preventing its development (free right of way on highways and railways, positive silence, small cells, dig once are some of the examples of such regulatory removal of historical problems).

That same year, law 14,109/2020 authorized the use of FUST ("Fundo de Universalização dos Serviços de Telecomunicação"), including by the private sector, to expand connectivity in rural or urban areas with a low human development Index (HDI) as well as policies for education and tech innovation of services in rural areas. In June 15, 2021, Provisional Measure 1018/2020 was transformed into Law No. 14173/2021, reducing charges for satellite internet terrestrial stations and changing some of FUST application rules. The law reduces FUST collection between 2022 and 2026, to telecommunications operators that run universalization programs approved by the Board of Directors with their own resources. The benefit will be valid for five years from January 1, 2022 and will be progressive: 10% in the first year; 25% in the second year; 40% in the third year; and 50% from the fourth year onwards. In addition, the new legislation removes the obligation to share towers within a distance of less than 500 meters from each other. The elimination of this obligation is essential for the deployment of 5G in Brazil, including to ensure the densification scenario expected for the new technology.

In the first quarter of 2022, the Federal Government signed Decree 11,004/2022, which regulates the use of Fust and establishes directions for the use of resources by the Management Board, instituted in June 2022. At the beginning of July, the internal regulations of the Fust Management Board were published and a budget for 2023 was proposed for digital inclusion. In the second half of 2022, the management Board defined, in its Res. 02/2022, further details on the mechanisms for using the FUST, clarifying the role of the financial agent, the accountability mechanism and the Anatel function in the application of the reduction of the contribution in the waiver mechanism. The Board also unveiled connectivity programs for public elementary schools and projects to expand connectivity and grants for low-income users.

Revision of the Service Quality Regulation

In December 2019, Anatel approved the new Telecommunication Services Quality Regulation (RQUAL), based on a reactive regulation. In this new model, quality is measured on the basis of three main indicators – a Service Quality Index, a Perceived Quality Index and a User Complaints Index – and operators are classified into five categories (A to E). Based on this reactive regulation, Anatel will be able to take measures according to specific cases, such as consumer compensation, the adoption of an action plan or the adoption of precautionary measures to ensure quality standard improvements.

After a joint work of Anatel, operators and the Quality Assurance Support Authority (ESAQ) to define the objectives, criteria and reference values of indicators, late November 2021, the Anatel Board of Directors formalized the reference documents supporting this regulation: the Operating Manual and the Reference Values; and established the operative coming into force on March 1, 2022, as well as the dissemination of official indexes and the Quality Mark (which fosters competition on quality) at the start of 2023, considering the results of the new indicators monitored in the second half of 2022.

Data protection

On August 14, 2018, the General Data Protection Law (Law 13,709/2018, “LGPD”) was promulgated.

In December 2018, Provisional Measure 869/2018 created the National Data Protection Authority (ANPD), also extended the entry into force of the Law to 24 months (August 2020).

In June 2020, Law 14,010/2020 deferred the coming into force of the LGPD, only for the provisions related to fines and penalties, to August 2021. The other provisions of the law took effect in September 2020. In addition, Decree 10,474/2020 (National Data Protection Authority) came into force in August 2020, establishing the ANPD (Brazilian National Data Protection Authority), which is responsible for, among other things: developing guidelines for the National Data Protection Policy; supervising companies and applying sanctions; and issuing regulations and procedures on personal data protection.

In August 2021, articles relating to supervision and sanctions by the National Authority (ANPD) came into force.

In October 2021, the regulation (CD/ANPD no. 1 of October 2021) was approved for the supervision and sanction administrative process, under the scope of competence of the ANPD.

In January 2022, the regulation (CD/ANPD no. 2 of January 2022) was approved implementing the LGPD for small processing agents.

In June 2022, a Provisional Measure nº 1124 was published, transforming the Brazilian National Data Protection Authority ("ANPD") into an independent agency of special nature. The Provisional Measure has an immediate effect but must be subject to a Congressional approval to be made into law.

In October 2022, Provisional Measure 1124 was converted into Law 14,460/22, transforming the Brazilian National Data Protection Authority ("ANPD") into an independent agency of special nature.

In December 2022, the new incident report form was published, with the obligation to report any breach of personal data.

In January 2023, the ANPD became a self-sufficient entity connected to the Ministry of Justice and Public Safety.

Digital Transformation, IoT and Artificial Intelligence

In March 2018, the E-Digital Decree (9319/2018 Decree) was published, in order to identify about 100 strategic actions to encourage competition and the country's level of online productivity, while increasing connectivity and digital inclusion levels. These actions seek to address the digital economy's main strategic questions, including connectivity infrastructure, data use and protection, the IoT and IT security. In December 2021, the MCTI began the review and approval is expected by the end of 2022.

The Decree on the National Plan for the Internet of Things (Decree 9854/2019) was published in June 2019, to regulate and promote this technology in Brazil. The IoT is referred to as the "infrastructure integrating the provision of value-added services with the ability to physically or virtually connect things using devices based on existing information and communication technology and their evolution, with interoperability". The Decree lists the following topics, defining them as necessary to further support the National Plan for the Internet of Things: (i) science, technology and innovation; (ii) international integration; (iii) education and professional training; (iv) connectivity and interoperability infrastructure; (v) regulation, security and privacy; (vi) economic feasibility.

In order to develop an IoT environment in the country, Law 14108/2020 was passed. This law exempts base stations and equipment that integrate machine-to-machine (M2M) ecosystems from FISTEL (an administrative tax collected by Anatel) for 5 years and, in addition, extinguishes the previous license. The definition and regulation of M2M communication systems are established by Anatel.

In April 2021, the Brazilian Strategy for Artificial Intelligence was published by MCTI with the objective of guiding the actions in favor of the development of research and innovation in solutions with the use of Artificial Intelligence, as well as its conscious use and ethical and ensuring innovation. In April 2022, a Public Consultation was launched by the Senate in order to discuss the new regulatory framework for artificial intelligence in Brazil. The Public Consultation is being held by a commission of specialized jurists that will address economic-social contexts and benefits of artificial intelligence (AI); sustainable development and well-being; innovation; AI research and development (resource funds and public-private partnerships); public security; agriculture; industry; digital services; information technology; and healthcare robots.

In November 2022, the MCTI published the Order ("Portaria") no. 6543, which approved the Brazilian digital transformation strategy ("E-Digital") for the 2022-2026 cycle. This regulation has established actions focused on assuring growth of the telecommunications market, industry 4.0, education, the market and international practices, the digitization of government platforms, privacy and security.

5G Auction

In February 2021, the Anatel Board of Directors approved the public notice for the 5G Auction. After which, the Brazilian federal court of auditors (TCU) assessed the matter, which was completed on August 25, 2021. The auction returned for analysis to Anatel, which on September 24, 2021 approved the notice. The auction envisaged in the second half of 2021 was held in November 2021. TIM acquired 11 lots, with a total value offered of 1.05 billion reais, in 3 frequency bandwidths: 3.5 GHz, 2.3 GHz and 26 GHz. The bandwidths acquired have a series of obligations that must be satisfied with financial contributions or the construction of mobile and fixed network infrastructures. Consequently, TIM guarantees the spectrum capacity necessary to pursue its growth nationally on the mobile market, being ready to respond to its customers' demands and to explore new applications and develop innovative solutions calling for high-speed connectivity and capacity.

The main commitments associated with each bandwidth are:

- 2.3 GHz: 4G coverage in certain municipalities and areas (south and south-east regions);
- 3.5 GHz: 5G coverage in all municipalities with a population equal to or greater than 30,000 inhabitants + fiber backhaul obligations in 138 municipalities + additional contributions to EAF ("Entidade Administradora da Faixa", new entity that has already been constituted) to carry out the following

projects: clean-up 3.5 GHz, deployment of fiber optic in Amazonia and building a private network for exclusive federal government use;

- 26 GHz: contributions to EACE ("Entidade Administradora da Conectividade de Escolas", new entity that has already been constituted) to carry out connectivity schools' projects.

COMPETITION

Domestic

The market

In 2021, the Italian TLC market showed a significant reduction in revenues (-2.8% YoY) for both the fixed network (-1.3% YoY) and the mobile network (-4.6% YoY)[2].

During the first half of 2022, the reduction was accentuated of revenues (-4.4% YoY) in both market contexts (fixed network -4.4% YoY, mobile network -3.2% YoY)[3].

After the most acute phases of the Sars-Cov-2 pandemic, which struck Italy before the other European countries, in 2021, the Italian economy recorded strong growth (+6.6% YoY), approaching pre-pandemic levels. The fourth quarter of 2022 recorded a growth trend of +1.4% (4th quarter 2022 vs 4th quarter 2021)[4], while the 2022 annual change for 2022 came to +3.7%[5].

The restrictions applied to economic activities and social behavior, which had sparked significant phenomena with impacts on the use of ICT services, were progressively attenuated and ultimately eliminated entirely.

Despite the attenuation of the restrictions, the growth of data traffic per line, which had accelerated in 2020 during the lock-down, continued in 2021 and remained, albeit with somewhat lesser intensity, in 2022 too, for both the fixed network (Jan-Sep: 2020 +40.5% YoY, 2021 +17% YoY, 2022 +6.8% YoY), and the mobile network (Jan-Sep: 2020 +54.1% YoY, 2021 +34.8% YoY, 2022 +28.0% YoY)[6].

In terms of long-term trends, the development of Broadband and Ultrabroadband continues to be the main factor of market evolution. The greater availability of Ultrabroadband will increasingly allow operators to develop convergent offers that combine Media & Entertainment, IT and Digital services with TLC services. The offer of these services will further increase the adoption of Broadband by customers.

The Italian telecommunications market remains highly competitive, with the greatest impact of market dynamics on voice and data connectivity services. Furthermore, in the new digital world, telecommunications operators have to deal with Over The Top - OTT and device manufacturers with completely different competitive assets and logic. All this is also borne out by the major reduction in the TLC price index recorded in 2021 (-6% YoY)[7], which remains in 2022 in a context of general inflation at +9.2% with Communications at +0.8% (general trending consumer price variation index in February 2023)[8].

The traditional business models of the various market players are, therefore, changing over time to exploit new opportunities and meet the challenges posed by the new competitors:

- in the media and entertainment sector, due to the growing importance of the Internet as a complementary distribution platform, in 2021, the Italian television market saw the further development of video on demand (VOD and SVOD) services, combined with the growing diffusion of OTT services that include linear video content. The central role played by the Broadband network in these new use modes sees players like the mentioned OTT, telecommunications operators and consumer electronics producers play an increasingly important role;
- in the Information and Communication Technology market, although there was overall growth in both 2021 (+5.3% YoY)[9] and in the first half of 2022 (+3% YoY)[10], the traditional fixed-line and mobile TLC component contracted, in favor of IT components related to digital transformation, especially for large companies, for example with the adoption of Cloud solutions for their technological infrastructures. In this sector, telecommunications operators have been strengthened, including through partnerships, to take advantage of the growth that, in the next few years, will be driven by the digitalization of SMEs and the investments of the NRRP (National Recovery and Resilience Plan).

With regards to the current positioning of the telecommunications operators in convergent markets, certain trends are seen, already mentioned above with different levels of evolution:

- the development of new services in the sector of media and entertainment (TV, Music, Gaming) and new digital services (smart home, digital advertising, mobile payment-digital identity);
- the development of innovative services in the IT market, particularly Cloud, IoT and Cybersecurity services.

As regards 5G, after the assignment of frequencies in 2018 and the launch of the service by TIM and Vodafone in 2019, by Wind Tre, Fastweb and Iliad in 2020, 2021 and 2022 were characterized by the progressive deployment of the network on the national territory.

Competition in the fixed telecommunications sector

The fixed-line telecommunications market has continued to see a downturn in access and voice revenues, while Broadband and Ultrabroadband revenues have shown growth. In recent years, service providers have concentrated mainly on expanding the penetration of Broadband and Ultrabroadband services and defending Voice revenues by introducing bundled voice, Broadband and service deals in a highly competitive environment with consequent pricing pressure.

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[2] Source: AGCOM "2022 Annual Report" (2021 data).
[3] Source: AGCOM observatory 2nd quarter 2022.
[4] Source: ISTAT quarterly data.
[5] Source: ISTAT GDP AND AP INDEBTEDNESS March 1, 2023.
[6] Source: AGCOM observatory 3rd quarter 2022.
[7] Source: processing of AGCOM data (2022 report - 2021 data).
[8] Source: ISTAT - Consumer price index for families of blue collars and white collars at October 2022.
[9] Source: Assinform – "Il digitale in Italia 2022" (2021 data).
[10] Source Anitec-Assinform - "Il digitale in Italia 2022 vol.2 (data 1st half 2022).

In March 2022, the total number of fixed accesses recorded its sixth consecutive quarter of growth, with a significant reduction in June 2022 and a slight recovery in the third quarter of 2022[11].

The market scenario shows significant infrastructural interventions, not only by TIM but also by other subjects, first and foremost Open Fiber, Infratel (operative company of the Ministry of Economic Development) and Fastweb, which have submitted and are deploying in a great many areas of the country, the development plans for their fiber optic telecommunications networks.

Competition in the Italian fixed-line telecommunications market is also characterized by the presence of other service providers besides TIM, such as Wind Tre, Fastweb, Vodafone, and Sky, which have business models focused on different segments of the market. 2022 saw Iliad enter the Ultrabroadband connectivity sector, which reached around 84 thousand customers in September 2022[12].

The Broadband market records a progressive increase in the penetration of Ultrabroadband lines with speeds in excess of 30 Mbps (FTTC, FTTH) with respect to the total number of Broadband lines.

The spread of Broadband continues to be driven not only by enabling devices (e.g. smart TV, smart speakers, smart devices) but also by the growing demand for speed and the introduction of new IP services, which are becoming ever more popular (media and entertainment, IT, digital services).

Competition in the mobile telecommunications sector

In the mobile market, the solid growth continues of the Machine to Machine (M2M) SIMs, despite the fact that the recent outlook has led to a slow-down in the 3rd quarter of 2022, whilst Human SIMs, after a long series of quarters posting a decline, starting the 2nd quarter of 2021 have returned to growth.

Alongside innovative services that have already caught on and are under full-scale development, as in the case of mobile apps, there are other market environments, associated with the development of Mobile Broadband, with major potential for growth in the medium term, such as the Internet of Things and mobile payment.

The competitive scenario of the Italian mobile telecommunications market in 2022 continues to be characterized by an aggressive offer from the operator Iliad in terms of price and volume of data, followed by those of other operators, resulting in general pressure on market prices. The operator Iliad and the virtual operators in general continue to win over customers and, consequently, market share, to the detriment of other infrastructured operators, mainly those with the highest market share.

This scenario has continued to lead to a drop in comprehensive mobile revenues in the first half of 2022 (-3.2% YoY)[13], even if competition pressure on tariffs has eased, with the main mobile operators having adopted a "more-for-more" commercial positioning, increasing prices in exchange for better network performance and better overall quality of service.

The competition on 5G continues with the simultaneous presence of TIM, Vodafone, Wind Tre, Iliad and Fastweb for mobile offers and a progressive coverage of the main cities. The spread of 5G has also begun in the business segment, enabling specialized solutions for the vertical markets, even if the spread of these services in this segment has not yet taken off.

Brazil

In 2022, the macroeconomic scenario remained under pressure due to inflation, mainly due to food and energy prices and interest rates. The entire process of the presidential elections entailed great uncertainty and volatility, leading to the deferral of investments. The contention is clearly polarized between two populist candidates, which has increased the country's tax risk. Lula, who won, had suggested to the market that he would have been able to construct a pragmatic government, close to that of his first mandate, but the choices that he made for the main country ministries have given rise to some doubts. If the market previously believed that the interest rates had now stopped rising and that they would have started dropping in the first half of 2023, now a new increase cannot be excluded, which would delay the start of the reduction. In addition, on the international scene, the war in Ukraine that broke out at the start of the year has had repercussions on the world economy, in particular on the increase in inflation.

Forecasts for the coming years still suggest a difficult context: volatility looks set to continue at least for the whole of 2023, in light of the uncertainty of the electoral outcome, the poor economic growth that limits the capacity to support an increase in income despite an employment rate up since 2021 and the persistent inflation that requires costs to be managed. As interest rates have been increased in a bid to slow inflation, we expect to see investors shift towards bank investments and a simultaneous distancing from the stock market.

Maintenance of the "Auxílio Brasil" at 600 reais, with a supplement of 150 reais for each child aged up to six years old and the increase in the minimum wage with respect to that established previously can support consumption, including that for telecommunications services.

The mobile telecommunications sector was consolidated in 2022 with the finalization of the sale of Oi. The buying companies are migrating their customer base and infrastructure. With one operator fewer, the sector has seen some rationality prevail in the market and in competition, with service providers maintaining their focus on the development of offers that are increasingly attractive to consumers, not only in terms of price but also with additional services, for example through partnerships with companies supplying streaming of video contents. The great challenge consists of increasingly involving customers, offering a more convenient, more fluid end-to-end experience with all-digital integration solutions in order to reduce the churn and seek to monetize the customer base.

In the prepaid segment, in November 2022, the customer base had declined by 5.4% YoY, but the impact of the acquisition of the Oi customer base by TIM, VIVO and Claro, following the switch-off, was strong. With Oi

[11] Source: AGCOM observatory 3rd quarter 2022.
[12] Source: AGCOM observatory 3rd quarter 2022, Iliad 2.6% share on FTTH lines.
[13] Source: AGCOM observatory 2nd quarter 2022.

leaving the market (the most aggressive operator in terms of price) and the consequent lesser competition, greater rationality is expected on the market. The main aim of market operators was to increase the percentage use of services, leveraging the SIM card consolidation process in progress on the market, encouraging migration towards weekly (and monthly) or hybrid (Controle postpaid) plans, offering a range of service bundles according to the needs of customers (unlimited voice calls or data packages). This strategy aims to improve the customer base mix and ensure greater stability (and a reduction in the churn rate) and the growth in ARPU.

In November 2022, the postpaid mobile telephone segment recorded an increase of 6.1% YoY of the customer base, thanks in particular to the growth of the M2M market but also with significant growth in the postpaid, ex-M2M, market. This market still suffers the effect of migrations from the prepaid segments to hybrid “controle”, but this year was particularly marked by the acquisition of the Oi customer base by TIM, VIVO and Claro, following the switch-off. With Oi off the scene, we expect to see greater market rationality. This growth is based on offer segmentation strategies, through the introduction of distinctive characteristics in the use of data services (e.g. unlimited use of data on specific apps such as WhatsApp, Facebook, Twitter, Netflix, etc.) in pursuing a “More for More” policy logic that aims to guarantee a greater stability of prices and an effective repositioning of the customer base on higher value offers (voice + data + bundle with OTT contents).

Service quality is still an element of differentiation. The telecommunication suppliers that have invested more in the development of 4G networks (coverage and capacity) and in the improvement of processes shaping customer experiences will have a greater capacity to apply premium prices because customers increase their expectations and assign increasing importance to the quality of data services and higher value contents. The main mobile operators already provide 4G coverage for over 99.8% of the Brazilian population (up to November 2022), with the three main operators offering average 4G availability in excess of 94% (according to the December 2022 Teleco report).

After the 5G auction in November 2021, 2022 was marked by the beginning of implementation of 5G in the country by operators. First, 5G was implemented in the country's major capitals and now will be following the schedule established on the auction of the most populous cities until completing all the municipalities. Operators' ultimate goal is to be able to increase mobile ARPU due to the consumption of new services enabled by 5G (e.g.: latency-based rates, additional features such as entertainment packages). The 5G is expected to bring new applications for B2B segment in a lot of industries. The 5G market already reached 5.1 million subscriptions by November 2022 (representing 2% of the market).

The fixed Broadband market registered a slowdown growth in the last year with growth of +7.7% in November 2022 (YoY), against +11.7% in November 2021 (YoY), maybe impacted by smaller Internet service providers (ISPs) underreport. The growth comes mainly from ISPs (+16.6% YoY in November 2022), which tend to offer cheaper services and reach areas where traditional operators have limited infrastructure. The main IPOs that took place in 2021 (Brisanet, Unifique and Desktop) besides other investment in ISPs brought some capital to increase coverage. As a result, traditional incumbent operators are experiencing sharp declines in their customer base, with the exception of TIM Live and Vivo. Population penetration rates are still quite low (around 60%, reaching 72 million households in Brazil in 2022) when compared to many other countries, which means that there are good opportunities for growth in the medium term, sustained by the improvement of the macroeconomic situation.

In this context, in 2017 TIM adopted a commercial strategy to enable TIM Live to expand coverage and its customer base, offering Ultrabroadband Internet services, mainly through FTTH, not only in some of the largest cities of Brazil, but also in cities where opportunities are available for a similar high-quality service. In addition, focusing on reducing friction points to improve retention. TIM Live has a customer base of over 712 thousand users in November 2022 (an increase of 4.2% year on year). In order to achieve faster and smarter growth, the way was to carve-out fiber assets and deployment of asset light model to accelerate footprint growth. TIM Live was recognized for the 6th year as the best Broadband service by a major Brazilian newspaper.

CONSOLIDATED FINANCIAL POSITION AND CASH FLOWS PERFORMANCE

Non-current assets

- **Goodwill**: increase of 543 million euros, from 18,568 million euros at December 31, 2021 to 19,111 million euros at December 31, 2022, mainly due to the posting of Goodwill following the acquisition by the Brazil cash generating unit of part of the mobile business of Oil Movél S.A. (Oi Group) for 502 million euros (2,636 million reais converted at the real/euro exchange rate of 5.25403). In addition, in the Domestic cash generating unit, an increase is recorded of 10 million euros connected with the acquisition of control over the companies Staer Sistemi S.r.l., Mindicity S.r.l. and Movenda S.p.A..

  In 2022, the exchange difference was positive for 31 million euros and relates to the goodwill attributed to the Brazil Cash Generating Unit[1].

  Further details are provided in the Notes “Business combinations” and “Goodwill” to the Consolidated Financial Statements at December 31, 2022 of the TIM Group.

- **Intangible assets with a finite useful life**: these increased by 509 million euros, from 7,147 million euros at the end of 2021 to 7,656 million euros at December 31, 2022, representing the balance of:
  - capex (+ 1,128 million euros);
  - amortization charge for the year (-1,517 million euros);
  - other disposals, exchange differences and other changes (for a net positive balance of 898 million euros). Exchange gains are recorded for 175 million euros mainly in relation to the Brazil Business Unit; other changes refer mainly to the entrance into the consolidation scope of the mobile telephone assets of Oi Móvel S.A. acquired by the TIM Group in April 2022 (685 million euros).

- **Tangible assets**: these increased by 789 million euros, from 13,311 million euros at the end of 2021 to 14,100 million euros at December 31, 2022, representing the balance of:
  - capex (+2,828 million euros);
  - depreciation charge for the year (-2,348 million euros);
  - other disposals, exchange differences and other changes (for a net positive balance of 309 million euros). Exchange gains are recorded for 228 million euros in relation to the Brazil Business Unit; other changes refer mainly to the entrance into the consolidation scope of the mobile telephone assets of Oi Móvel S.A. (112 million euros).

- **Rights of use assets**: these increased by 641 million euros, from 4,847 million euros at the end of 2021 to 5,488 million euros at December 31, 2022, representing the balance of:
  - investments (+121 million euros) and increases in lease contracts (+832 million euros);
  - amortization charge for the year (-912 million euros);
  - disposals, exchange differences and other changes (for a net positive balance of 600 million euros). Exchange gains are recorded for 143 million euros and mainly relate to the Brazil Business Unit; other changes refer mainly to the entrance into the consolidation scope of the mobile telephone assets of Oi Móvel S.A. (558 million euros) and changes connected with the lesser value of the rights of use recorded as a result of contractual changes during the year.

- **Other non-current assets**: came to 5,440 million euros and reduced compared with December 31, 2021 by 5,804 million euros, mainly due to:
  - the sale of the indirect investment held in INWIT following the sale, by TIM S.p.A., of a 41% share in the share capital of the holding company Daphne 3 S.p.A., which in turn holds a 30.2% share in INWIT;
  - the reversal, by TIM S.p.A., of Deferred tax assets in respect of the exercise of the option to revoke realignment of goodwill.

Consolidated equity

Consolidated equity amounted to 18,725 million euros (22,039 million euros at December 31, 2021), of which 15,061 million euros attributable to Owners of the Parent (17,414 million euros at December 31, 2021) and 3,664 million euros attributable to non-controlling interests (4,625 million euros at December 31, 2021). In greater detail, the changes in consolidated equity were the following:

[1] The spot exchange rate used for the translation into euro of the Brazilian real (expressed in terms of units of local currency per 1 euro) was 5.56520 at December 31, 2022 and 6.32047 at December 31, 2021.

(million euros)	12/31/2022	12/31/2021
At the beginning of the year	**22,039**	**28,840**
Total comprehensive income (loss) for the year	(1,912)	(8,110)
Dividends approved by:	(86)	(373)
TIM S.p.A.	*—*	*(318)*
Other Group companies	*(86)*	*(55)*
Daphne 3 - deconsolidation	(1,332)	—
FiberCop - capital increase	—	1,750
Daphne 3 - distribution of additional paid-in capital	—	(42)
Equity instruments	6	33
Other changes	10	(59)
At the end of the year	**18,725**	**22,039**

Cash flows

Adjusted net financial debt at December 31, 2022 was equal to 25,364 million euros (22,187 million euros as of December 31, 2021).

The Group's **operating free cash flow** for 2022 showed absorption of 625 million euros: operating cash generation, positive for 1,617 million euros, is counterbalanced by the payment made in September 2022 of the last tranche of the right to use 5G frequencies in Italy (1,738 million euros) as well as other payments for the acquisition of rights of use of telecommunication service frequencies in Brazil and Italy for a total of 504 million euros. In 2021, operating free cash flow was positive for 1,444 million euros (+1,879 million euros operating cash generation against 435 million euros for the acquisition of rights of use of telecommunication service frequencies).

The main transactions that had an impact on the change in adjusted net financial debt are as follows:

Change in adjusted net financial debt

(million euros)	2022 (a)	2021 (b)	Change (a-b)
EBITDA	5,347	5,080	267
Capital expenditures on an accrual basis	(4,077)	(4,630)	553
Change in net operating working capital:	(1,736)	733	(2,469)
Change in inventories	*(35)*	*(39)*	*4*
Change in trade receivables and other net receivables	*(81)*	*257*	*(338)*
Change in trade payables	*398*	*584*	*(186)*
Change in payables for mobile telephone licenses/spectrum	*(2,144)*	*369*	*(2,513)*
Other changes in operating receivables/payables	*126*	*(438)*	*564*
Change in employee benefits	156	(83)	239
Change in operating provisions and Other changes	(315)	344	(659)
Net operating free cash flow	**(625)**	**1,444**	**(2,069)**
% of Revenues	*(4.0)*	*9.4*	*(13.4) pp*
Sale of investments and other disposals flow	1,341	1,935	(594)
Share capital increases/reimbursements, including incidental expenses	2	(42)	44
Financial investments	(1,905)	(102)	(1,803)
Dividends payment	(68)	(368)	300
Increases in lease contracts	(832)	(667)	(165)
Finance expenses, income taxes and other net non-operating requirements flow	(1,090)	(1,061)	(29)
Reduction/(Increase) in adjusted net financial debt from continuing operations	**(3,177)**	**1,139**	**(4,316)**
Reduction/(Increase) in net financial debt from Discontinued operations/Non-current assets held for sale	—	—	—
Reduction/(Increase) in adjusted net financial debt	**(3,177)**	**1,139**	**(4,316)**

The **Equity Free Cash Flow** for 2022 amounted to 624 million euros (632 million euros in 2021). This financial measure represents the free cash flow available for the remuneration of own capital, to repay debt and to cover any financial investments and payments of licenses and frequencies.

The Equity Free Cash Flow is calculated as follows:

(million euros)	2022	2021	Change
Reduction/(Increase) in adjusted net financial debt from continuing operations	**(3,177)**	**1,139**	**(4,316)**
Impact for finance leases (new lease operations and/or renewals and/or extensions (-)/any terminations/early extinguishing of leases (+))	827	452	375
Payment of TLC licenses and for the use of frequencies	2,242	435	1,807
Financial impact of acquisitions and/or disposals of investments	666	(1,804)	2,470
Dividend payment and Change in Equity	66	410	(344)
Equity Free Cash Flow	**624**	**632**	**(8)**

In addition to what has already been described with reference to EBITDA, the change in adjusted net financial debt for 2022 was particularly impacted by the following:

Capital expenditures and for mobile telephone licenses/spectrum

Capital expenditures and expenses for mobile telephone licenses/spectrum for 2022 were 4,077 million euros (4,630 million euros in 2021).

Capex is broken down as follows by operating segment:

(million euros)	2022		2021		Change
		% weight		% weight	
Domestic	3,207	78.7	3,377	*72.9*	(170)
Brazil	870	21.3	1,253	*27.1*	(383)
Other Operations	—	—	—	—	—
Adjustments and eliminations	—	—	—	—	—
Consolidated Total	**4,077**	**100.0**	**4,630**	**100.0**	**(553)**
% of Revenues	*25.8*		*30.2*		*(4.4)pp*

In particular:

- the **Domestic Business Unit** reports capital expenditures of 3,207 million euros, with a significant portion intended for the development of FTTC/FTTH networks (including 80 million euros for the acquisition of telecommunications licenses), down by 170 million euros compared to 2021, mainly due to the streamlining and prioritization of spending implemented by the Business Unit;
- the **Brazil Business Unit** posted capital expenditures in 2022 of 870 million euros (1,253 million euros for 2021). Excluding the impact of changes in exchange rates (+211 million euros), capex decreased by 594 million euros on the previous year. More specifically, capex for 2021 included the acquisition of frequencies for 5G services (564 million euros). Technological investments represent 91% of total capex and were mainly driven by mobile Broadband coverage to achieve completion of 100% of Brasil municipalities, by the significant coverage of capitals with new 5G SA technology and by the full completion of Oi infrastructure integration. Besides Mobile core business expansion, the Business Unit continued to develop the Ultrabroadband residential business with FTTH technology (UltraFibre).

Change in net operating working capital

In 2022, net operating working capital showed a reduction of 1,736 million euros (+733 million euros in 2021), mainly due to the change in trade payables and for mobile telephone licenses/spectrum (-2,144 million euros), only partly offset by the increase in trade payables (+398 million euros) and other operating receivables/payables (+126 million euros).

Sale of investments and other disposals flow

In 2022, it was positive for 1,341 million euros and was connected mainly to the sale by TIM S.p.A. to a consortium of investors led by Ardian, of 41% of the capital of the holding company Daphne 3, which holds a 30.2% share in Infrastrutture Wireless Italiane ("INWIT"). Further details are provided in the Note on “Investments” in the TIM Group Consolidated Financial Statements at December 31, 2022.

In 2021, it was positive for 1,935 million euros, and mainly comprised the collection consequent to the sale of 37.5% of FiberCop S.p.A. (1,759 million euros) and the collection consequent to the sale of 51% of I-Systems (172 million euros).

Change in employee benefits

In 2022, employee benefits increased by a total of 156 million euros, mainly related to the effect of provision net of uses connected to managerial and non-managerial staff, also in accordance with the application of Art.

4 of Italian Law no. 92 of June 28, 2012 and the former Art. 41, subsection 5bis, Italian Legislative Decree no. 148/2015, as per agreements signed during the year with the trade unions and referring entirely to the Italian companies of the Domestic Business Unit.

Financial investments

In 2022, the item came to 1,905 million euros and mainly included the impacts deriving from the acquisition of 100% of the share capital of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A., the company corresponding to the part of the assets, rights and obligations of Oi Móvel - Em Recuperação Judicial, purchased by the TIM Group.

Increases in lease contracts

In 2022, the item came to 832 million euros (667 million euros in 2021) and includes the greater value of rights of use entered following new passive lease contracts, increases in lease charges and the renegotiation of existing lease contracts.

Financial expenses, income taxes and other net non-operating requirements flow

In 2022, the flow has a negative balance for a total of 1,090 million euros (negative for 1,061 million euros in 2021). It mainly includes outflows relating to financial management components, as well as the payment of income tax expense and changes in non-operating payables and receivables.

Sales of receivables to factoring companies

It should be noted that sales without recourse of trade receivables to factoring companies completed during 2022 resulted in a positive effect on the adjusted net financial debt at December 31, 2022 amounting to 1,155 million euros (1,536 million euros at December 31, 2021).

Net financial debt

Net financial debt is composed as follows:

(million euros)	12/31/2022 (a)	12/31/2021 (b)	Change (a-b)
Non-current financial liabilities			
Bonds	15,259	17,383	(2,124)
Amounts due to banks, other financial payables and liabilities	6,480	6,054	426
Non-current financial liabilities for lease contracts	4,597	4,064	533
	26,336	**27,501**	**(1,165)**
Current financial liabilities (*)			
Bonds	2,799	3,512	(713)
Amounts due to banks, other financial payables and liabilities	2,240	2,433	(193)
Current financial liabilities for lease contracts	870	651	219
	5,909	**6,596**	**(687)**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale	—	—	—
Total Gross financial debt	**32,245**	**34,097**	**(1,852)**
Non-current financial assets			
Securities other than investments	—	—	—
Non-current financial receivables arising from lease contracts	(49)	(45)	(4)
Financial receivables and other non-current financial assets	(1,602)	(2,285)	683
	(1,651)	**(2,330)**	**679**
Current financial assets			
Securities other than investments	(1,446)	(2,249)	803
Current financial receivables arising from lease contracts	(69)	(56)	(13)
Financial receivables and other current financial assets	(154)	(142)	(12)
Cash and cash equivalents	(3,555)	(6,904)	3,349
	(5,224)	**(9,351)**	**4,127**
Financial assets relating to Discontinued operations/Non-current assets held for sale	—	—	—
Total financial assets	**(6,875)**	**(11,681)**	**4,806**
Net financial debt carrying amount	**25,370**	**22,416**	**2,954**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(6)*	*(229)*	*223*
Adjusted Net Financial Debt	**25,364**	**22,187**	**3,177**
Breakdown as follows:			
Total adjusted gross financial debt	**31,682**	**32,564**	**(882)**
Total adjusted financial assets	**(6,318)**	**(10,377)**	**4,059**
(*) of which current portion of medium/long-term debt:			
Bonds	*2,799*	*3,512*	*(713)*
Amounts due to banks, other financial payables and liabilities	*1,139*	*898*	*241*
Current financial liabilities for lease contracts	*856*	*648*	*208*

The financial risk management policies of the TIM Group are aimed at minimizing market risks, fully hedging exchange rate risk, and optimizing interest rate exposure through appropriate diversification of the portfolio, which is also achieved by using carefully selected derivative financial instruments. Such instruments, it should be stressed, are not used for speculative purposes and all have an underlying, which is hedged.

In addition, to determine its exposure to interest rates, the Group sets an optimum composition for the fixed-rate and variable-rate debt structure and uses derivative financial instruments to achieve that composition. In consideration of the Group's operating activities, the optimum combination of medium/long-term non-current financial liabilities has been identified, on the basis of the nominal value, in the 65%-85% range for the fixed-rate component and in the 15%-35% range for the variable-rate component.

In managing market risks, the Group has adopted Guidelines for the "Management and control of financial risk" and mainly uses IRS and CCIRS derivative financial instruments.

To provide a better representation of the true performance of Net Financial Debt, in addition to the usual indicator (renamed "Net financial debt carrying amount"), the TIM Group reports a measure called "Adjusted net financial debt", which neutralizes the effects caused by the volatility of financial markets. Given that some components of the fair value measurement of derivatives (contracts for setting the exchange and interest rate for contractual flows) and of derivatives embedded in other financial instruments do not result in actual monetary settlement, the Adjusted net financial debt excludes these purely accounting and non-monetary effects (including the effects of IFRS 13 – Fair Value Measurement) from the measurement of derivatives and related financial assets/liabilities.

For further details, see the "Alternative performance measures" chapter.

Adjusted net financial debt amounted to 25,364 million euros at December 31, 2022, **an increase of 3,177 million euros compared to December 31, 2021** (22,187 million euros). This increase is attributable on the one hand to the positive effect of:

- the aforementioned cash flow from operative-financial management;
- the coverage of a total of 1,184 million euros due to the sale of 41% and the consequent deconsolidation of the holding company Daphne 3, which holds a 30.2% share in Infrastrutture Wireless Italiane ("INWIT"),

which were offset by the impacts related to:

- the acquisition in Brazil of the mobile business of the Oi Group for a total of 1,874 million euros;
- the payment of telecommunications frequencies and related commitments in Italy and Brazil for 2,242 million euros;
- the accounting impact of the renegotiation of (IFRS 16) lease contracts, 827 million euros net of lease contracts considered in the Oi acquisition value (557 million euros).

For a better understanding of the information, the table below shows the various ways by which the Net Financial Debt can be shown:

(million euros)	12/31/2022 (a)	12/31/2021 (b)	Change (a-b)
Net financial debt carrying amount	**25,370**	**22,416**	**2,954**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(6)*	*(229)*	*223*
Adjusted Net Financial Debt	**25,364**	**22,187**	**3,177**
Leases	*(5,349)*	*(4,614)*	*(735)*
Adjusted Net Financial Debt - After Lease	**20,015**	**17,573**	**2,442**

Net financial debt carrying amount amounted to 25,370 million euros at December 31, 2022, an increase of 2,954 million euros compared to December 31, 2021 (22,416 million euros). Reversal of the fair value measurement of derivatives and related financial liabilities/assets recorded a change of 223 million euros, essentially following the greater impact of the rise in Euro interest rates with respect to USD rates, which effectively revalue the cash flow hedges. This change is adjusted by the booked Net Financial Debt with no monetary effect.

Adjusted Net Financial Debt – After Lease (net of lease contracts), which is a parameter adopted by main European peers, was equal to 20,015 million euros at December 31, 2022, up by 2,442 million euros compared to December 31, 2021 (17,573 million euros).

Gross financial debt

Bonds

Bonds at December 31, 2022 totaled 18,058 million euros (20,895 million euros at December 31, 2021). Repayments totaled a nominal 17,552 million euros (20,338 million euros at December 31, 2021).

The change in bonds during 2022 was as follows:

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A 2002-2022 reserved for subscription by employees	Euro	214	1/1/2022
Telecom Italia S.p.A. 1,250 million euros 5.25% [1]	Euro	884	2/10/2022
Telecom Italia S.p.A. 2,000 million euros 1.125% Convertible bond	Euro	2,000	3/26/2022

[1] Net of buy-backs totaling 366 million euros made by the company in 2015.

On January 20, 2023, TIM issued a 5-year Bond for an amount of 850 million euros, coupon 6.875%.

Revolving Credit Facility and Term Loan

The following table shows committed credit lines(*) available at December 31, 2022:

(billion euros)	12/31/2022		12/31/2021	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - May 2026	4.0	—	4.0	—
Total	**4.0**	**—**	**4.0**	**—**

(*) In accordance with the contract signed, the Banks have committed to make the funds available on demand (with at least 3 days' notice). As this is a "Committed" line, the banks have no mechanisms in place not to honor the request for funds made by the Company, without prejudice to the market standard early mandatory cancellation clauses (Natural contract expiry, Change in control, Borrower illegality, Events of default).

On July 6, 2022, TIM stipulated a new loan with a pool of leading international banks, which benefits from the "Italy Guarantee" (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020 as subsequently amended and supplemented) for an amount of 2 billion euros.

Maturities of financial liabilities and average cost of debt
The average maturity of non-current financial liabilities (including the current portion of medium/long-term financial liabilities due within 12 months) was 6.51 years.

The average cost of the Group's debt, considered as the cost for the year calculated on an annual basis and resulting from the ratio of debt-related expenses to average exposure, stood at approximately 4.4%, while the average cost of the Group's debt "After Lease" was equal to approximately 3.9%.

Current financial assets and liquidity margin

The TIM Group's available **liquidity margin** amounted to 9,001 million euros, equal to the sum of:

- "Cash and cash equivalents" and "Current securities other than investments" for a total of 5,001 million euros (9,153 million euros at December 31, 2021), also including 494 million euros in repurchase agreements expiring by April 2023;
- Sustainability-linked Revolving Credit Facility amounting to 4,000 million euros, totally available.

This margin is sufficient to cover Group financial liabilities (current and otherwise) falling due over the next 18 months.

In particular:

Cash and cash equivalents amounted to 3,555 million euros (6,904 million euros at December 31, 2021). The different technical forms of investing available cash can be analyzed as follows:

- **maturities**: investments have a maximum maturity of three months;
- **counterparty risk**: investments by the European companies are made with leading banking, financial and industrial institutions with high credit quality. Investments by the companies in South America are made with leading local counterparties;
- **Country risk**: deposits have been made mainly in major European financial markets.

Current securities other than investments amounted to 1,446 million euros (2,249 million euros at December 31, 2021): These forms of investment represent alternatives to the investment of liquidity with the aim of improving returns. They included a total of 368 million euros of treasury bonds held by Telecom Italia Finance S.A., 672 million euros of bonds purchased by Telecom Italia Finance S.A. with different maturities, all with an active market and consequently readily convertible into cash, and 406 million euros of investments in monetary funds by the Brazil Business Unit. The purchases of the above government bonds, which, pursuant to Consob Communication no. DEM/11070007 of August 5, 2011, represent investments in "Sovereign debt securities", have been made in accordance with the Guidelines for the "Management and control of financial risk" adopted by the TIM Group.

In the fourth quarter of 2022, **adjusted net financial debt** decreased by 140 million euros compared to September 30, 2022 (25,504 million euros).

(million euros)	12/31/2022 (a)	9/30/2022 (b)	Change (a-b)
Net financial debt carrying amount	**25,370**	**25,499**	**(129)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(6)*	*5*	*(11)*
Adjusted Net Financial Debt	**25,364**	**25,504**	**(140)**
Breakdown as follows:			
Total adjusted gross financial debt	**31,682**	**32,671**	**(989)**
Total adjusted financial assets	**(6,318)**	**(7,167)**	**849**

CONSOLIDATED DATA – TABLES OF DETAIL

To follow, the Separate Consolidated Income Statements, Consolidated Statements of Comprehensive Income, Consolidated Statements of Financial Position, Consolidated Statements of Cash Flows as well as Other Information of the TIM Group.

Separate Consolidated Income Statement

(million euros)	2022 (a)	2021 (b)	Changes (a-b) absolute	%
Revenues	**15,788**	**15,316**	**472**	**3.1**
Other income	213	272	(59)	(21.7)
Total operating revenues and other income	**16,001**	**15,588**	**413**	**2.6**
Acquisition of goods and services	(7,239)	(6,550)	(689)	(10.5)
Employee benefits expenses	(3,180)	(2,941)	(239)	(8.1)
Other operating expenses	(816)	(1,502)	686	45.7
Change in inventories	22	10	12	—
Internally generated assets	559	475	84	17.7
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**5,347**	**5,080**	**267**	**5.3**
Depreciation and amortization	(4,777)	(4,490)	(287)	(6.4)
Gains (losses) on disposals of non-current assets	36	1	35	—
Impairment reversals (losses) on non-current assets	—	(4,120)	4,120	—
Operating profit (loss) (EBIT)	**606**	**(3,529)**	**4,135**	**—**
Share of losses (profits) of associates and joint ventures accounted for using the equity method	23	38	(15)	(39.5)
Other income (expenses) from investments	206	126	80	63.5
Finance income	1,115	1,124	(9)	(0.8)
Finance expenses	(2,538)	(2,274)	(264)	(11.6)
Profit (loss) before tax from continuing operations	**(588)**	**(4,515)**	**3,927**	**87.0**
Income tax expense	(2,066)	(3,885)	1,819	46.8
Profit (loss) from continuing operations	**(2,654)**	**(8,400)**	**5,746**	**68.4**
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—	—	—
Profit (Loss) for the year	**(2,654)**	**(8,400)**	**5,746**	—
Attributable to:				
Owners of the Parent	**(2,925)**	**(8,652)**	**5,727**	**66.2**
Non-controlling interests	271	252	19	7.5

Consolidated Statements of Comprehensive Income

In accordance with IAS 1 (Presentation of Financial Statements), the following Consolidated Statements of Comprehensive Income include the Profit (loss) for the year as shown in the Separate Consolidated Income Statement and all non-owner changes in equity.

(million euros)		2022	2021
Profit (Loss) for the year	**(a)**	**(2,654)**	**(8,400)**
Other components of the Consolidated Statement of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(2)	7
Income tax effect		—	—
	(b)	**(2)**	**7**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		77	(8)
Income tax effect		(17)	(3)
	(c)	**60**	**(11)**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	**—**	**—**
Total other components that will not be reclassified subsequently to Separate Consolidated Income Statement	**(e=b+c+d)**	**58**	**(4)**
Other components that will be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(130)	28
Loss (profit) transferred to Separate Consolidated Income Statement		21	(6)
Income tax effect		4	—
	(f)	**(105)**	**22**
Hedging instruments:			
Profit (loss) from fair value adjustments		488	658
Loss (profit) transferred to Separate Consolidated Income Statement		(235)	(365)
Income tax effect		(61)	(71)
	(g)	**192**	**222**
Exchange differences on translating foreign operations:			
Profit (loss) on translating foreign operations		597	50
Loss (profit) on translating foreign operations transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(h)	**597**	**50**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(i)	**—**	**—**
Total other components that will be reclassified subsequently to Separate Consolidated Income Statement	**(k=f+g+h+i)**	**684**	**294**
Total other components of the Consolidated Statement of Comprehensive Income	**(m=e+k)**	**742**	**290**
Total comprehensive income (loss) for the year	**(a+m)**	**(1,912)**	**(8,110)**
Attributable to:			
Owners of the Parent		**(2,365)**	**(8,374)**
Non-controlling interests		453	264

Consolidated Statement of Financial Position

(million euros)		12/31/2022 (a)	12/31/2021 (b)	Changes (a-b)
Assets				
Non-current assets				
Intangible assets				
Goodwill		19,111	18,568	543
Intangible assets with a finite useful life		7,656	7,147	509
		26,767	**25,715**	**1,052**
Tangible assets				
Property, plant and equipment owned		**14,100**	**13,311**	**789**
Rights of use assets		**5,488**	**4,847**	**641**
Other non-current assets				
Investments in associates and joint ventures accounted for using the equity method		539	2,979	(2,440)
Other investments		116	156	(40)
Non-current financial receivables arising from lease contracts		49	45	4
Other non-current financial assets		1,602	2,285	(683)
Miscellaneous receivables and other non-current assets		2,365	2,266	99
Deferred tax assets		769	3,513	(2,744)
		5,440	**11,244**	**(5,804)**
Total Non-current assets	**(a)**	**51,795**	**55,117**	**(3,322)**
Current assets				
Inventories		322	282	40
Trade and miscellaneous receivables and other current assets		4,539	4,358	181
Current income tax receivables		147	79	68
Current financial assets				
Current financial receivables arising from lease contracts		*69*	*56*	*13*
Securities other than investments, other financial receivables and other current financial assets		*1,600*	*2,391*	*(791)*
Cash and cash equivalents		*3,555*	*6,904*	*(3,349)*
		5,224	**9,351**	**(4,127)**
Current assets sub-total		**10,232**	**14,070**	**(3,838)**
Discontinued operations /Non-current assets held for sale				
of a financial nature		—	—	—
of a non-financial nature		—	—	—
		—	**—**	**—**
Total Current assets	**(b)**	**10,232**	**14,070**	**(3,838)**
Total Assets	**(b+a)**	**62,027**	**69,187**	**(7,160)**

(million euros)		12/31/2022 (a)	12/31/2021 (b)	Changes (a-b)
Equity and Liabilities				
Equity				
Equity attributable to owners of the Parent		15,061	17,414	(2,353)
Non-controlling interests		3,664	4,625	(961)
Total Equity	**(c)**	**18,725**	**22,039**	**(3,314)**
Non-current liabilities				
Non-current financial liabilities for financing contracts and others		21,739	23,437	(1,698)
Non-current financial liabilities for lease contracts		4,597	4,064	533
Employee benefits		684	699	(15)
Deferred tax liabilities		84	245	(161)
Provisions		910	926	(16)
Miscellaneous payables and other non-current liabilities		1,146	1,413	(267)
Total Non-current liabilities	**(d)**	**29,160**	**30,784**	**(1,624)**
Current liabilities				
Current financial liabilities for financing contracts and others		5,039	5,945	(906)
Current financial liabilities for lease contracts		870	651	219
Trade and miscellaneous payables and other current liabilities		8,199	9,473	(1,274)
Income tax payables		34	295	(261)
Current liabilities sub-total		**14,142**	**16,364**	**(2,222)**
Liabilities directly associated with Discontinued operations/Non-current assets held for sale				
of a financial nature		—	—	—
of a non-financial nature		—	—	—
		—	**—**	**—**
Total Current Liabilities	**(e)**	**14,142**	**16,364**	**(2,222)**
Total Liabilities	**(f=d+e)**	**43,302**	**47,148**	**(3,846)**
Total Equity and Liabilities	**(c+f)**	**62,027**	**69,187**	**(7,160)**

Consolidated Statements of Cash Flows

(million euros)		2022	2021
Cash flows from operating activities:			
Profit (loss) from continuing operations		(2,654)	(8,400)
Adjustments for:			
Depreciation and amortization		4,777	4,490
Impairment losses (reversals) on non-current assets (including investments)		9	4,118
Net change in deferred tax assets and liabilities		2,645	3,894
Losses (gains) realized on disposals of non-current assets (including investments)		(242)	(120)
Share of losses (profits) of associates and joint ventures accounted for using the equity method		(23)	(38)
Change in employee benefits		156	(83)
Change in inventories		(35)	(39)
Change in trade receivables and other net receivables		(81)	257
Change in trade payables		484	337
Net change in income tax receivables/payables		(478)	(313)
Net change in miscellaneous receivables/payables and other assets/liabilities		337	233
Cash flows from (used in) operating activities	**(a)**	**4,895**	**4,336**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(6,305)	(4,013)
Capital grants received		3	3
Acquisition of control of companies or other businesses, net of cash acquired		(1,316)	—
Acquisitions/disposals of other investments		(26)	(100)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		969	(1,183)
Proceeds from sale that result in a loss of control of subsidiaries or other businesses, net of cash disposed of		1,278	172
Proceeds from sale/repayments of intangible, tangible and other non-current assets		62	4
Cash flows from (used in) investing activities	**(b)**	**(5,335)**	**(5,117)**
Cash flows from financing activities:			
Change in current financial liabilities and other		(436)	704
Proceeds from non-current financial liabilities (including current portion)		2,288	4,082
Repayments of non-current financial liabilities (including current portion)		(4,615)	(3,072)
Change in hedging and non-hedging derivatives		(36)	103
Share capital proceeds/reimbursements (including subsidiaries)		2	(42)
Dividends paid		(68)	(368)
Changes in ownership interests in consolidated subsidiaries		(4)	1,757
Cash flows from (used in) financing activities	**(c)**	**(2,869)**	**3,164**
Cash flows from (used in) Discontinued operations/Non-current assets held for sale	**(d)**	**—**	**—**
Aggregate cash flows	**(e=a+b+c+d)**	**(3,309)**	**2,383**
Net cash and cash equivalents at beginning of the year	**(f)**	**6,904**	**4,508**
Net foreign exchange differences on net cash and cash equivalents	**(g)**	(40)	13
Net cash and cash equivalents at end of the year	**(h=e+f+g)**	**3,555**	**6,904**

Purchase of intangible, tangible and rights of use assets

(million euros)	2022	2021
Purchase of intangible assets	(1,128)	(1,886)
Purchase of tangible assets	(2,828)	(2,665)
Purchase of rights of use assets	(953)	(746)
Total purchase of intangible, tangible and rights of use assets on an accrual basis	(4,909)	(5,297)
Change in payables arising from purchase of intangible, tangible and rights of use assets	(1,396)	1,284
Total purchases of intangible, tangible and rights of use assets on a cash basis	(6,305)	(4,013)

Additional Cash Flow information

(million euros)	2022	2021
Income taxes (paid) received	164	(242)
Interest expense paid	(1,668)	(1,440)
Interest income received	562	437
Dividends received	155	90

Analysis of Net Cash and Cash Equivalents

(million euros)	2022	2021
Net cash and cash equivalents at beginning of the year:		
Cash and cash equivalents - from continuing operations	6,904	4,829
Bank overdrafts repayable on demand – from continuing operations	—	(321)
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	—
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	6,904	**4,508**
Net cash and cash equivalents at end of the year:		
Cash and cash equivalents - from continuing operations	3,555	6,904
Bank overdrafts repayable on demand – from continuing operations	—	—
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	—
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	3,555	**6,904**

The additional disclosures required by IAS 7 are provided in the Note “Net Financial Debt” to the TIM Group Consolidated Financial Statements at December 31, 2022.

Other information

Average salaried workforce

(equivalent number)	2022 (a)	2021 (b)	Change (a-b)
Average salaried workforce – Italy	36,866	38,826	(1,960)
Average salaried workforce – Outside Italy	9,046	9,116	(70)
Total average salaried workforce [1]	45,912	47,942	(2,030)

[1] Includes agency contract workers: average 15 employees in Italy in 2022; average 12 employees in Italy in 2021.

Headcount at year end

(number)	12/31/2022 (a)	12/31/2021 (b)	Change (a-b)
Headcount – Italy	40,752	42,347	(1,595)
Headcount – Outside Italy	9,640	9,582	58
Total headcount at year end [1]	50,392	51,929	(1,537)

[1] Includes agency contract workers: 15 employees in Italy at 12/31/2022; 16 employees in Italy at 12/31/2021.

Headcount at year end – Breakdown by Business Unit

(number)	12/31/2022 (a)	12/31/2021 (b)	Change (a-b)
Domestic	40,984	42,591	(1,607)
Brazil	9,395	9,325	70
Other Operations	13	13	—
Total	50,392	51,929	(1,537)

AFTER LEASE INDICATORS

TIM Group, in addition to the conventional financial performance measures established by the IFRS, uses certain alternative performance measures in order to present a better understanding of the trend of operations and financial condition. Specifically, following the adoption of IFRS 16, the TIM Group presents the following additional alternative performance measures:

EBITDA AFTER LEASE - TIM GROUP

(million euros)	4th Quarter 2022	4th Quarter 2021	Changes		2022	2021	Changes	
			absolute	%			absolute	%
ORGANIC EBITDA - excluding non-recurring items	**1,490**	**1,451**	**39**	**2.7**	**6,029**	**6,459**	**(430)**	**(6.7)**
Lease payments	(280)	(225)	(55)	**(24.4)**	(1,034)	(871)	(163)	(18.7)
EBITDA After Lease (EBITDA-AL)	**1,210**	**1,226**	**(16)**	**(1.3)**	**4,995**	**5,588**	**(593)**	**(10.6)**

EBITDA AFTER LEASE - DOMESTIC

(million euros)	4th Quarter 2022	4th Quarter 2021	Changes		2022	2021	Changes	
			absolute	%			absolute	%
ORGANIC EBITDA - excluding non-recurring items	**959**	**1,001**	**(42)**	**(4.2)**	**4,174**	**4,872**	**(698)**	**(14.3)**
Lease payments	(131)	(128)	(3)	(2.3)	(512)	(509)	(3)	(0.6)
EBITDA After Lease (EBITDA-AL)	**828**	**873**	**(45)**	**(5.2)**	**3,662**	**4,363**	**(701)**	**(16.1)**

EBITDA AFTER LEASE - BRAZIL

(million euros)	4th Quarter 2022	4th Quarter 2021	Changes		2022	2021	Changes	
			absolute	%			absolute	%
ORGANIC EBITDA - excluding non-recurring items	**531**	**455**	**76**	**16.9**	**1,863**	**1,599**	**264**	**16.4**
Lease payments	(149)	(97)	(52)	(53.6)	(522)	(362)	(160)	(44.2)
EBITDA After Lease (EBITDA-AL)	**382**	**358**	**24**	**7.6**	**1,341**	**1,237**	**104**	**8.5**

ADJUSTED NET FINANCIAL DEBT AFTER LEASE - TIM GROUP

(million euros)	12/31/2022	12/31/2021	Change
Adjusted Net Financial Debt	**25,364**	**22,187**	**3,177**
Leases	(5,349)	(4,614)	(735)
Adjusted Net Financial Debt - After Lease	**20,015**	**17,573**	**2,442**

EQUITY FREE CASH FLOW AFTER LEASE - TIM GROUP

(million euros)	4th Quarter 2022	4th Quarter 2021	Change	2022	2021	Change
Equity Free Cash Flow	**363**	**172**	**191**	**624**	**632**	**(8)**
Change in lease contracts (principal share)	(154)	(138)	(16)	(650)	(570)	(80)
Equity Free Cash Flow After Lease	**209**	**34**	**175**	**(26)**	**62**	**(88)**

SUSTAINABILITY ASPECTS

Materiality analysis

In 2022, as envisaged by Italian Legislative Decree no. 254/2016, TIM carried out a Materiality Analysis, the process underlying non-financial reporting. The analysis was carried out according to the updated Global Reporting Initiative ("GRI") standards, which now include a new process for identifying material topics, based on the **principle of the relevance of the impact**, i.e. assessment of the effective or potential, negative or positive impact the Group may have on the economy, society and environment for each material topic identified.

The materiality process has also been simplified through the use of a specialized semantic analysis platform, which has made it possible to collect a vast amount of documents updated dynamically and actively involved the Enterprise Risk Management Department in assessing the risks connected with the topics identified.

Process of identifying the material topics

The 2022 material topics have been identified on the basis of a considerable document base, which takes into account the specific ESG topics of the Technology & Telecommunication sector, the operative and strategic context of the TIM Group, its business relations, industry peers and all other relevant organizations. Obtaining the information and assuring it is constantly up-to-date has been guaranteed by the artificial intelligence function underlying such platform and by a constant monitoring of the media to obtain data on stakeholder sentiment.

The analysis was carried out with the direct involvement of TIM's top management and a significant sample of representatives of all categories of stakeholders who, through a survey, assessed and measured the impacts associated with each topic.

Eight different categories of stakeholders have been involved: Customers, Suppliers, Financial Community, Regulatory Entities, Civil Society, industry Business Community, Media and TIM People. The categories were identified and assessed specifically, with an assessment carried out according to the specifications of the international accountability standard AA100SES, which the TIM Group carries out every year in order to best evaluate the evolution of its business relations.

For each material topic, the effective or potential, negative or positive impacts have been identified that the TIM Group may have on the economy, environment and people, summarizing the outcomes of the document analysis, the sentiment gathered from the media, the results of stakeholder and management engagement and assigning a greater weight to external evidence and stakeholder perception. The process also involved the Enterprise Risk Management Department to guarantee that the material topics identified fall within the medium/high level risks monitored by the Group.

The material topics have been represented in table form with a list in order of relevance of impact and also validated by means of a sensitivity analysis to verify the variation of the importance of the impact where the weightings assigned to the different sources used, are varied.

In 2022, no significant changes were noted compared with the previous year, even if the update of GRI Standards required a more detailed qualification of the topics, taking them from 12 in 2021 to 16 today.

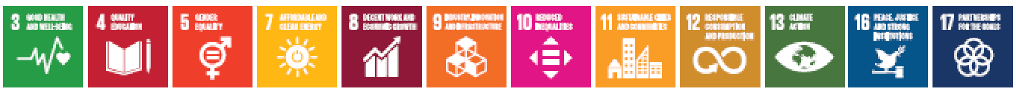
Results at a glance

The 16 material topics identified with the materiality analysis carried out are listed below in order of relevance of impact and highlighting the **type** and **intensity** of the impact.

LIST OF MATERIAL TOPICS 2022

	Material topics	Impact level	Type of impact	
1	Privacy and cybersecurity	high	POTENTIAL	NEGATIVE
2	Digital inclusion	high	ACTUAL	POSITIVE
3	Infrastructures and emerging technologies	high	ACTUAL	POSITIVE
4	Customer interaction and service transparency	high	ACTUAL	POSITIVE
5	Employee health and safety	high	ACTUAL	NEGATIVE
6	Development and motivation of TIM employees	high	ACTUAL	POSITIVE
7	Climate change	medium	ACTUAL	NEGATIVE
8	Energy transition	medium	POTENTIAL	POSITIVE
9	Legal and regulatory context management	medium	POTENTIAL	NEGATIVE
10	Equal pay and opportunity	medium	POTENTIAL	NEGATIVE
11	Community and stakeholder relations	medium	ACTUAL	POSITIVE
12	Resilience to physical, public health and sociopolitical risks	medium	ACTUAL	POSITIVE
13	Sustainable supply chain	medium	ACTUAL	POSITIVE
14	Human rights defense	low	POTENTIAL	NEGATIVE
15	Cyberbullying, child pornography, online gambling	low	POTENTIAL	NEGATIVE
16	Circular economy and waste production	low	POTENTIAL	NEGATIVE

environment social governance low medium high



The key topics for the Group and its stakeholders reflect the Sustainable Development Goals which TIM believes it can help achieve through its own personnel, technologies and services, adopting policies that promote and safeguard human rights and the environment.

Specifically, the relevant Goals are:

- *No. 3: Ensure healthy lives and promote well-being for all at all ages;*
- *No. 4: Quality education;*
- *No. 5: Gender equality;*
- *No. 7: Affordable and clean energy;*
- *No. 8: Decent work and economic growth;*
- *No. 9: Industry, innovation and infrastructure;*
- *No. 10: Reduced inequalities;*
- *No. 11: Sustainable cities and communities;*
- *No. 12: Responsible consumption and production;*
- *No. 13: Take urgent steps to combat climate change and its consequences;*
- *No. 16: Peace, justice and strong institutions;*
- *No. 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.*

Validation and Review

The validation of the material topics and the entire materiality analysis process was carried out by the Institutional Communication Sustainability, Sustainability & Sponsorship Department, with the support of internal and external experts. The results shown in the table have also been validated by the Sustainability Committee and the Control and Risk Committee. The materiality analysis is the basis for the 2022 Non-Financial Statement and the construction of the Group's ESG Strategic Plan.

The review phase is due to take place as a preparatory stage prior to the next reporting cycle, with the aim of submitting the results of the updated analyses to specific stakeholder engagement activities.

RESEARCH AND DEVELOPMENT

Approach to innovation, choice of topics, innovation governance process

The research and development of innovative technologies and services, processes and business models, represents a key factor in the keeping up with the profound transformations of ICT, as well as an asset acting as a driving force for customers and the countries in which the Group operates, helping to overcome the socio-cultural barriers that limit the opportunity to participate in the information society and enjoyment of the related benefits. The section below describes TIM's activities in Italy and TIM S.A.'s activities in Brazil.

TIM has always considered innovation to be a strategic asset and takes great care in governing individual aspects, from its strategic role to its responsibility, objectives and policy.

In 2022, TIM continued to strengthen an innovation model that leverages the eco-system concept, which is fundamental to nurturing a virtuous circle for scouting, incubating and planning innovative initiatives. This is realized, on the one hand, through labs as multi-site centers open virtually and connected in a unique digital environment to support open innovation, and on the other hand, through collaboration with Universities of excellence, thus creating a synergy oriented to the digital transformation of society, and which certifies TIM as a reference partner in Italy.

In line with this, the Group has taken action in several ways:

- by continuing the action to strengthen internal innovation lines, focusing the activity of laboratories and research groups on the fundamental trends in the evolution of fixed and mobile networks towards 5G[1] and "beyond 5G" standards, Open RAN and Edge Cloud, on the "clouding" of network functions and on network and service solutions based on artificial intelligence and machine learning and on the issues of service platforms and new operation systems;
- by selecting, accelerating and co-creating innovative ideas, products and services from the world of startups[2] and small and medium-sized enterprises (SMEs), in line with emerging innovative trends of interest to TIM, in order to improve the commercial offer and internal processes, and encourage the growth of the Italian startup ecosystem through the TIM WCap acceleration program and venture capital investments made by TIM Ventures, the corporate venture capital arm[3] of TIM.

The management of technological innovation involves different stakeholders both within and outside the Company:

- other areas of the company involved from time to time, both as internal customers for the innovation output solution and as centers of expertise on the topic;
- traditional and digital partners, for the joint go2market[4] of digital services;
- research centers and universities, for cooperation and joint projects. In 2022, research contracts were initiated with nine Italian universities for a total value of approximately 900,000 euros;
- at international level, a vast set of standardization bodies, associations, alliances, telco open communities, which play a fundamental role in the evolution of the TLC industry/sector for networks, platforms and services, in which TIM collaborates in partnership with the main stakeholders of the sector. In 2022, despite the continuing international crisis due to the pandemic, TIM confirmed its membership of the main standardization bodies and associations with 30 registrations for a total commitment of around 800,000 euros, placing the emphasis on interaction, not only with associations closely linked to the world of telecommunications, but also integrating with other industrial sectors such as the automotive sector and industry 4.0. Participation in international bodies has enabled TIM to increase its intellectual assets, both in terms of the acquisition of know-how and through direct contribution, aimed at promoting its industrial strategy and intellectual property (with the approval of solutions based on TIM patents in standards);
- at the national level there are numerous collaborative relationships with various Ministries, the European Union, Public Bodies (e.g. the National Research Council and local authorities), for the realization of projects financed through participation in calls for tenders and partnership initiatives. In this area, in 2022 the collaboration continued that had started in 2019 since their creation with the Centers of Excellence of the MED, aimed at fostering the transfer of technological competences and innovation in production processes, products and business models, including the Bologna BI-REX, the CIM 4.0, the Padua Smact, the Rome Cyber 4.0 and the Naples Meditech.

TIM's technological evolution is based on its Technology Plan, part of the Industrial Plan; specifically the Technology Plan identifies the technological strategy in terms of guidelines, specific technologies and the roadmap of adoption over a multi-year period. The qualitative and/or quantitative goals have been given an annual framework. They are defined so that they can be objectively measured in compliance with quality standards (ISO 9001) and environmental standards (ISO 14001), and operational innovation processes; in the same way as TIM processes, in general, are based on Telemanagement Forum's reference standard E-Tom[5].

In addition, the open innovation initiatives focused on scouting and the project assessment of new TIM business development opportunities, activating any venture capital operations - and carried out through TIM Ventures - as well as the oversight of entrepreneurial open innovation. late 2022, the first TIM Smart City Challenge was organized, a collaborative, open innovation initiative that, together with the Association Bikeconomy Observatory, the CNR-DIITET, Edison NEXT, eFM and Intesa Sanpaolo Innovation Center, the

[1] Acronym for fifth generation mobile technology and standards.
[2] New companies characterized by a high degree of innovation.
[3] TIM Ventures is the TIM Group company that invests in corporate venture capital.
[4] It can be defined as the strategy of an organization, which utilizes internal and external resources (e.g., sales force), in order to deliver its unique value proposition to customers and gain a competitive advantage.
[5] The Business Process Framework (eTOM) can be considered an operating model framework for telecommunications service providers; the model describes the required business processes, defines the key elements and how they should interact. eTOM is a standard maintained by the TM Forum, an association for service providers and their suppliers in the telecommunications and entertainment industries.

Startup Intelligence Observatory of Milan Polytechnic aims to improve the offer portfolio for smart cities, further enrich the services supporting the administrations, study the evolution of the city and incorporate the needs of each individual municipality thanks to the activation of new collaborations with innovative companies offering smart city solutions.

Overall, in 2022 TIM committed around 1,200 people to working on technological innovation and engineering in Italy, for an overall investment for the TIM Group of 906 million euros.

Innovative technological activities with a focus on 5G, Edge Cloud and Open RAN

In 2022 TIM continued its commitment to innovative activities with a focus on 5G Edge Cloud and Open RAN.

Open RAN and Edge Computing technologies are considered decisive to allow 5G to fulfill its technological and business potential. The Open Radio Access Network (O-RAN) is a concept based on the interoperability and standardization of the elements of the 4G and 5G radio access network, including a unified interconnection standard for hardware and software elements (even open source) from different vendors, and the introduction of network elements that enable more intelligence in the network according to the principles of Artificial Intelligence and Machine Learning. Edge Computing moves traffic and service processing from a centralized cloud to the edge of the network and closer to the customer, allowing full advantage to be taken of high speed and low latency on the network.

In 2022, TIM, a member of the O-RAN ALLIANCE since 2018, further extended an Open RAN (Open Radio Access Network) development program for the innovation of the mobile access network. This initiative will see the Group implement new solutions on its commercial network to benefit customers and businesses thereby speeding up the deployment of digital services.

The initiative is covered by the signing of a Memorandum of Understanding in February 2021 with the main European operators to promote Open RAN technology with the aim of speeding up the implementation of new generation mobile networks, in particular 5G, Cloud and Edge Computing.

In the context of the Memorandum of Understanding, 2022 saw TIM finalize two releases of requirements of the new Open RAN systems, selecting the functions of most interest, starting from the O-RAN specifications. According to these requirements, as part of the TIP's (Telecom Infra Project, an initiative sponsored by META) Open RAN project, TIM defined a blueprint (i.e. an end2end configuration) to be considered for testing in its laboratories.

In addition to the field activations of the JMA and Mavenir solutions in 2021, trials continued in the laboratory on the 3.7 GHz frequencies of TIM's 5G network in collaboration with Mavenir for core and radio networking capabilities, Dell Technologies and Intel for infrastructure, and VMware's Telco Cloud platform for end-to-end control of network functions and software automation. In this sense, the laboratory set-up architecture has been extended to also include the non stand-alone configuration. Again with Mavenir, integration was performed with a new model MTI radio for 4G systems, under the scope of the Evenstar project promoted by META.

In the second half of 2022, moreover, an inter-work activity was performed between the basic bandwidth of Nokia and radio 5G supplied by Fujitsu, based on O-RAN specifications for the open fronthaul in the non-stand-alone configuration.

The development of Open RAN solutions, characterized by an open environment, allows, in line with the objectives of TIM's 2022-2024 plan, to combine the potential of the cloud and Artificial Intelligence with the evolution of the mobile network. This technology allows operators to reinforce security standards, improve network performance and optimize costs in order to provide increasingly advanced digital services, such as those related to new solutions for Industry 4.0, Smart City and autonomous driving.

Under the scope of the activities carried out in the TIM OTIC laboratory (laboratory launched in 2021 and dedicated to trialling new Open RAN solutions and verifying conformance with the relevant standards), in October and November, liaising with the other European operators (BT, Deutsche Telecom, Orange and Vodafone), TIM hosted the 2022 edition of the Plugfest O-RAN, during which tests were carried out on the solutions provided by certain suppliers (Azcom, Capgemini, Dell, DZS, JMA, Keysight, Mavenir, Microamp, MTI, SIAE, VIAVI, VMware) to verify the interoperability and compliance with O-RAN specifications.

Also for the fixed access segment of the TIM network, evolution is in progress, which envisages the unbundling of its HW and SW components of different vendors and the potential implementation in the cloud edge of some of the functions presently implemented on the devices. This type of route inevitably involves the adoption of open and standard interfaces, like those envisaged by the BBF with respect to the proprietary interfaces used at present on field solutions.

The optical access, in particular based on PON solutions, evolves towards systems offering increasingly high performance. Whilst the 50Gbit/s HS-PON system is being standardized, the study is starting of the possible solutions for the next generation of PON systems with capacity of 100Gbit/s or greater.

The development of the mobile 5G network also requires efficient, inexpensive solutions for the collection and aggregation of traffic produced by the radio sites, above all when using low level (fronthaul) functional split, due to the high transmission capacity required. Solutions based on cell site gateway or traditional or innovative WDM systems are of particular interest and are currently considered the most promising.

The 2022 activities on fixed access regarded the development of laboratory tests, PoC and field trials to verify the above-specified architectures and technologies parallel to overseeing the related standardization activities.

Other partnerships and activities with a focus on 5G

The Torino City Lab[6] and CTE NEXT initiative continues, in which TIM is the reference technological partner, and which has in fact been a great success and represents a reference model for the other CTEs (Case delle Tecnologie - Houses of Emerging Technologies) that have already been activated and for future CTEs to be awarded the new 2022 tender contract.

Over the 4 years for which the initiative runs, the main initiatives of Torino City Lab will be conducted through CTE Next, which provides a series of calls for testing and calls for innovation, for which it will catalyze the potential experiments by start-ups and SMEs interested in carrying out activities in the territory of Turin. The project reference verticals are the classic sectors on which the city of Turin focuses: Smart Mobility, Urban Air Mobility (drones), Industry 4.0, Innovative Urban Services, and the gaze, as always, will be turned towards the social aspects and potential replication in other contexts of the solutions tested. In addition to the locations for experimentation already used in Torino City Lab (Doralab and the urban circuit of Smart Roads), the CSI Next site, the CIM 4.0, the Clik laboratories of the Polytechnic and the laboratories of the Links Foundation (all places where TIM has set up the 5G reference infrastructure) will be added.

Thanks to CTE Next, the activities of Torino City Lab are significantly expanded, and made more structured and formalized, ensuring better effectiveness for the sustainable development of the territory. It should be pointed out that in CTE Next, TIM represents the 360-degree technological reference point for both the construction of the CTE and the innovation activities that will be carried out in it, assuming an even more central and decisive role for the success of the initiative. In 2022 in particular, TIM provided support with the use of the innovative assets and precommercial solutions supplied to CTE NEXT (like the edge cloud platform, the application platform for managing drones, cellular IoT solutions and Blockchain). TIM has also completed, working in collaboration with the Turin Polytechnic University and the Links Foundation, an experimental proof of concept on the detection of fine powders exploiting blockchain technology for the notarization of data detected by means of the road side units on the 5G network.

In the **Smart Mobility and Connected Vehicles sector**, among the main applications, agreements and use scenarios of TIM's 5G implemented in 2022, the following are worthy of note:

- The continuation C-ROADS Italy project, in which TIM participates as an enabler of the infrastructure dedicated to hybrid communication, i.e. based on the interaction between cellular and proximity communication. TIM has collaborated with project partners, in particular Autostrada del Brennero and Centro Ricerche Fiat (Stellantis) for the implementation of pilot projects in the field. More specifically, experimentation has continued on the Interchange Entity, i.e. the application component of the C-ROADS platform that enables the exchange of messages between all operators in the smart transport ecosystem world, such as highways and the connected car. In particular, the project tested a cross-border hybrid infrastructure that enables the union of the various national systems involved.
- Completion of the “5G Carmen” project financed by the European Commission in the context of the H202 framework program and dedicated to the experimentation of automotive solutions in the Italy-Austria-Germany corridor and specifically with tests of solutions in use of 5G technology to manage vehicles at the border of the Brennero. 2022 saw completion of the final demonstrations of semi-autonomous vehicles controlled by the 5G network and which are able to cross the border without interruption to service. The 5G Carmen project has been resumed on a national level too, for future activities on the same corridor in CEF Digital area.
- The MASA project - Modena Automotive Smart Area, an “open-air” laboratory for the testing and certification of new technologies in autonomous driving, assisted driving and mobility, born from the partnership between the Municipality of Modena and the University of Modena and Reggio Emilia. The collaboration will make it possible to test increasingly advanced autonomous and connected driving solutions and services, with the aim of developing the communication infrastructure that will be the basis of the new mobility services using the potential offered by the most modern network technologies. In particular, TIM will provide innovative solutions enabled by its 4G and 5G mobile radio networks, as well as by Edge Computing technologies, which ensure better performance in terms of high bandwidth and low latency, for automotive applications related to mobility and traffic management. TIM will also be making Artificial Intelligence and Machine Learning solutions available, which make it possible to enable new service models for the automotive sector.
- The agreement with ALIS for smart and sustainable mobility through the digitization of over 1,500 transport, logistics and intermodal companies. The aim is to make the mobility of goods and people smarter and more efficient, as well as greener, thanks to digital technologies generating a positive impact in terms of economic, social and environmental sustainability in the transport, logistics and intermodal supply chain.
- "Arena del Futuro" - the world's first collaborative innovation project for zero-emission mobility of people and goods towards carbon neutrality together with the A35 Brebemi-Aleatica highway, ABB, Electreon, FIAMM Energy Technology, IVECO, IVECO Bus, Mapei, Pizzarotti, Polytechnic of Milan, Prysmian, Stellantis, Roma Tre University and University of Parma. The collaboration is aimed at creating the conditions for the development of an innovative zero-emission mobility system for people and goods along highway transport corridors by demonstrating the effectiveness and efficiency of technologies related to the powering of electric cars, buses and commercial vehicles through dynamic non-contact inductive charging.
- TIM has started participating as external partner (not financed) in the European SHOW project: this project aims to support the transition towards sustainable, effective urban transport through the implementation in real traffic throughout Europe (20 cities involved in the trial) of shared, connected, electric fleets of autonomous vehicles (Level 4) with different service modes: public transport, on-call transport and Mobility as a Service (MaaS). More specifically, for the Turin trial, TIM supplies both mobile connectivity for the 2 Navya shuttles and the “supervisor” terminals on existing 5G commercial network and experimental solutions guiding Smart Roads and Smart City applications.

[6] Torino City Lab: project started in 2019 and born from the partnership between TIM and the Municipality of Turin. In this case, TIM is a TLC partner, for the establishment of simplified trial areas for digital services to allow for strategic collaboration to continue in the dissemination phase of the commercial 5G service.

- TIM has taken part in the MED financed project called 5GSMARTG, which aimed to supply smart roads solutions based on 5G technologies, for the safety of road infrastructures (I2V communication, structural monitoring) focused on the metropolitan area of Genoa. More specifically, the city's information systems (orders, variable message panels, traffic sensors, road surface sensors) have been integrated and a mobile app implemented for communication of significant traffic information to vehicles. In addition, the model of a city bridge has been used with structural monitoring data for the construction of a digital twin of this road infrastructure, complementing with a view over a control platform.

In the **Industry 4.0 sector**, collaborations with top-level Competence Centers such as CIM 4.0 and BI-REX are highlighted.

Competence Industry Manufacturing 4.0 (CIM 4.0), is one of the national reference hubs of the Ministry of Economic Development (MED) for the technological transfer and dissemination of competences linked to the manufacturing industry. The TIM Innovation Labs collaborate with the Turin Polytechnic University and University of Turin, as well as with 22 other companies from Turin for the study, testing and dissemination in SMEs of Industry 4.0 solutions, including 5G. The collaboration that began in 2019 continued into 2022, not only on the higher education front with active participation in the CIM Academy, but also on the technology front: TIM has brought ultrafast XGS-PON connections to CIM: FTTH fiber connections with XGS-PON technology, which make a bandwidth of 10 GB/second available symmetrically, and the use of new EDGE Cloud infrastructure, technological enablers designed ad hoc to foster the best digital performance and greatest flexibility of use.

In 2022, in collaboration with CIM 4.0 and another two partner companies, TIM completed the financed 5G For Factory (5GFF) project dedicated to the application of 5G technology and software/IT services to support the digital transformation of the manufacturing sector. 5GFF is focused on the Additive Manufacturing chain, to trial the potential of 5G in terms of low latency, high bandwidth, QoS and sensors, but also reconfiguration flexibility and security. These characteristics are also enabled by the simultaneous development of edge computing infrastructures necessary to exploit the services specified at an application level. The case of use experimented by 5GFF offers the sector new possibilities to obtain information/data from the machines of a production line and spark actions, regardless of the position of operators and machines. This improves flexibility in production, the availability of the machine, the overall effectiveness and efficiency of the equipment and opens new operating scenarios linked to the remote interaction of man and machine.

In addition, again in 2022 and again in the area of the CIM 4.0, TIM developed an edge cloud solution in collaboration with Google Cloud, Ericsson, SIEMENS and Reply, which makes it possible to automatically manage the development of a dedicated part of the network, with specific characteristics that are useful for the industrial sector, like low latency and automatic service management. The trial has shown that the MES (Manufacturing Execution System) production systems connected in the cloud, used by the manufacturing industries, boast greater scalability, also in remote management, and have lower consumption costs, with no impact on performance in terms of reliability and IT security. By also allowing access to the services available on the public cloud, this edge cloud solution equally assures a *continuum* between plant, edge and cloud, thereby enabling the manufacturing companies to be more agile and reactive in the technological and digital transition process.

At BI-REX, Bologna center, the focus placed on the development areas of Big Data, Additive Manufacturing, Robotics, finishing and metrology, the alliance between the TIM network and the technologies present in BI-REX's pilot line, a reference point already active for companies, research centers and SMEs throughout Italy, engaged in the processes of technology transfer and digital transformation, demonstrates an example of how 5G could accelerate the digitization of companies.

On BI-REX's pilot line, TIM has made a professional push-to-talk communication platform available to ensure greater safety for working staff on the move. This platform allows for workers geolocated and followed, ensuring adequate protection even when isolated, thanks to the activation of the "man down" feature, which detects any irregularities in the worker's posture, enabling on-site supervision.

TIM's new fifth-generation network, integrated with the Augmented and Virtual Reality solutions already present on the pilot line, will enable timely future maintenance activities, with remote technical assistance, thanks to constant monitoring of the operation and the alarm indicators of the connected systems, minimizing any downtime and costs.

Collaboration between TIM and BI-REX is also concerned with the sphere of training, aimed at updating the skills of people and companies at the center of change: the online training activities on technologies for Industry 4.0 of the TIM Corporate Academy, will in fact complement the educational offer already provided by BI-REX, both on site with the pilot line itself, and remotely.

In May, under the scope of the agreement between TIM and Google Cloud, for a technological collaboration for the creation of innovative public, private and hybrid cloud services to enrich the range of technological services offered by TIM, TIM and Noovle have launched the development of Italy's first "5G Cloud Network". The solution will allow for the faster development of new digital applications in 5G, thanks to the automation of industrial processes and the real time implementation of services thanks to EDGE Computing, on the basis of specific needs. The project, which will enable the automation of the functions of TIM's 5G core network and all Cloud applications, will use the TIM Telco Cloud infrastructure, Google Cloud solutions and Ericsson technologies.

"Beyond 5G" activities

In 2022, certain activities were started, which in a pure research and innovation area aim to assure the evolution of 5G towards future telecommunications systems, generally termed "beyond 5G" to indicate the evolutionary aspect. TIM has monitored and supported these activities, in particular in the area of the national and European financed projects.

More specifically, TIM has joined the "Hexa-X" project consortium that, with financing in the context of the European Commission Horizon 2020 program, plays the role of flagship project in respect of "beyond 5G" systems. This evolution will then, in around 2030, lead to the new "6G" system. A preliminary indication of these projects is the fact that they clearly draw inspiration from sustainability, both environmental and social, aiming to meet the specific needs of the end users.

Amongst the other activities in this area, we also note those of Artificial Intelligence brought to the edge of the network ("AI@EDGE"), one of the most investigated topics, both for the AI proper aspects and the reduction of latency, due to the distribution of functions at the edge of the network. Another topic currently the subject of research and experimentation is that of the reconfigurable intelligent surfaces ("RIS"), which, thanks to the use of extremely innovative materials, allow for the modeling of the propagation channel in a controlled manner, guaranteeing an increase in overall performance.

Again in the context of "beyond 5G" activities, TIM, together with its partners, has completed the "5G Tours" project, in this case too, financed by the European Commission in the context of the H2020 program. In 2022, the project carried out the final experiments of services in the context of "smart tourism" and smart city applications, in collaboration with various partners, including Ericsson and Turin city council and the Fondazione Torino Musei, which made Palazzo Madama and the GAM Museum in Turin available for the experiments.

To monitor all the activities specified, in 2022, TIM also joined the "6G Industry Association", taking a seat on the management board. This association represents the private side of the public-private collaboration ("Joint Undertaking") on Smart Networks and Services (SNS), with the European Commission being the public side.

Service Innovation initiatives

Operating activities to develop 5G technology, Open RAN and Edge Computing, as well as the enhancement of innovative solutions linked to Quantum Communication, Metamaterials, the Corporate Technology Plan and Digital Services carried out in partnership with companies, institutions, universities and start-ups, most of which are part of TIM's Open Innovation ecosystem, are accompanied by structured technical communication activities that range from the TIM Technical Bulletin editorial plan, to promotions with press releases and events to disseminate scientific information, also at the customer's premises.

Research with Universities

In 2022, participatory research and development activities have been strongly focused on a model that ensures an eco-system vision that pursues Open Innovation also through collaboration with some Universities of excellence. In fact, 2022 saw TIM focusing on the creation of a real "Open Innovation Ecosystem" centered on the collaboration with Italian Universities in order to develop new Open Lab and Research Projects, as well as through PhD contribution to internalize specialized knowledge, but also for the sharing of technological trends, heralding new growth opportunities within an increasingly global market.

Open Innovation therefore grafts into an integrated ecosystem with the strategic European and Italian departments comprising orders, PhDs, PoCs, the development of demo prototypes, Community Open Source, financed projects and dissemination.

The research with the Universities for Innovation of 2022 has specifically identified some real structured courses on some medium/long-term topics to complete and enrich the internal know-how and construct an all-round overview:

- setting medium-term paths and collaborations;
- continuity of the Research Agreements with 3 specific Framework Agreements with:
  - the Polytechnic University of Turin with 18 research projects on AI&Big Data, Edge&Cloud, IoT, Mobility, Industry, SDN&Optics, Quantum&CyberSec and Radio Evolution;
  - University of Catania with 4 projects on AI&BigData, IoT, Mobility, Industry and Edge&Cloud;
  - University of Milan with a study intending to define solutions for the deployment of services on the TIM Cloud Continuum network;
- continuation of the research contracts with:
  - the CNIT on the topic of 5G, with the aim of defining and developing a realistic simulated environment thanks to the synergic use of MDT data measurement campaigns, network performance data (cell KPI) and electromagnetic simulation software of TIM's TIMPLAN radio mobile networks;
  - the Scuola Superiore Sant'Anna (Sant'Anna High School) in Pisa with an Edge&Cloud project: the 5G network concerned by the study is completely virtualized, with an RAN based on ORAN and a Cloud Native type Core Network.
- activation of new research collaborations with the following Universities:
  - Polytechnic University of Milan with an activity of the Digital Environment Ecosystem program of Service Innovation, which seeks to identify innovative digital services by which to optimize the 5G network infrastructure;
  - University of Turin with a study on the application of Human Centered Design methodologies precisely relating to Game Design and Conversational Agent UX Design, which take into account the technological state-of-the-art in eXtended Reality/Metaverso and Artificial Intelligence;
  - University of Pisa on the topics of radio evolution, with an analysis and development project of an application to optimize mobility in the radio mobile network, exploiting the interfaces defined in ORAN.

Another important step in the support for research and innovation is the path undertaken by TIM in 2021 with the financing of 30 three-year PhDs. In particular, the Innovation department has provided the Human Resources department with technical collaboration to propose research topics for establishing and tutoring 9 scholarships for the 36th cycle and 6 additional scholarships for the 37th cycle. The universities chosen are: the

Polytechnic of Turin, the Polytechnic of Milan, the University of Milan, the University of Trento, the Scuola Superiore Sant'Anna of Pisa, the Federico II University of Naples, the University of Catania and the Alma Mater Studiorum of Bologna.

The partnership between the University of Modena and Reggio Emilia and the Municipality of Modena for the testing and certification of new self-driving technologies and assisted driving that is part of the MASA – Modena Automotive Smart Area project was also activated, where TIM implements 4G/5G mobile radio and Edge Computing solutions.

In addition, on a national scale, TIM is in contact with the main research centers, like the CNR and the Universities of Padua, Naples, Parma and Florence, as well as with the Polytechnic University of Turin, which deal with Quantum Computing and Quantum Communication (in particular QKD). TIM has proposed and activated PhD courses (with the University of Naples Federico II and the Polytechnic University of Turin) respectively on the topics of quantum communication and quantum algorithms for services and applications. Finally, the TIM Academy is preparing a Masters in Quantum Computing and Communications with the support of Innovation.

Through the subsidiary Telsy, TIM has acquired an investment in Quantum Telecommunications Italy (QTI), a spin-off of the CNR, created within the National Institute of Optics of Florence by a group of researchers and entrepreneurs with multiple years of experience in the field of quantum technologies. The company's mission is to exploit the laws of nature, such as quantum mechanics, to ensure efficient and completely secure communications that also allow connections to be made between devices of the future, such as computers and quantum sensors. QTI aims to design, develop and produce quantum communication architectures for private companies, government bodies and research institutes.

Funded research activities

In 2022, TIM continued to be active in participating in innovation and research initiatives funded by the European Union and national public authorities, taking part, in particular, in international projects on issues that are key for TIM. In the four-year period between 2018 and 2021, in European research and innovation programs (such as CEF - Connecting Europe Facility, Horizon Europe) TIM participated in more than 50 project proposals of which more than a third were accepted and then funded for a total of approximately 16 million euros. In this context, the activities carried out in the projects funded on the topics of 5G, virtualization and smart mobility services, and more recently "Beyond 5G", which will lead to the definition of the new generation of mobile systems of the near future, are those that have allowed, on the one hand, the enrichment of expertise and, on the other hand, the acquisition and consolidation of an internationally-recognized role.

TIM is also operative in certain European projects financed under the scope of the Euro-Quantum Communication Infrastructure (Euro-QCI) and the European Community (H2020) Digital Europe Programme (DEP). The main aim of the Euro-QCI is to allow for the distribution of quantum keys for secure encryption in data exchange. The first users of the QCI infrastructure may be government agencies and authorities of the EU Member States, requiring a high degree of security to transmit confidential information. In the medium/long-term, the Euro-QCI infrastructure will host additional functions, over and above the distribution of quantum keys, like digital signatures and authentication. Finally, it is expected that the Euro-QCI will evolve in the long-term until becoming European quantum Internet (target 2035+), i.e. into an infrastructure that is able to interconnect network platforms, calculations, terminals and quantum sensors of the Member States. On these long-term topics, TIM participates in two Horizon Digital Emerging FPAs (Framework Partnership Agreements).

Patents and Intellectual Property Rights[7]

In 2022, the Group's patent portfolio maintained a size comparable to that of previous years. The production of new patent applications dropped slightly (12 patent applications filed on new inventions) as did the new patents granted during the year. The rationalization of the patent portfolio has led to some patents being abandoned which, with technological evolution, are no longer of any value. The Group's patent areas relate to the entire ICT sector, with specific excellence in the mobile sector, in particular in radio access, where TIM is among the leading TLC operators in the world.

In detail, TIM's patent portfolio at the end of 2022, relating to 483 patented inventions, includes over 2,800 comprising both patent applications and patents granted: the latter (granted following examination by over 35 national patent offices) account for around 90% of the total.

A significant aspect of patent activity is represented by the high number of patents resulting from collaboration with universities and research institutes: 13% of patented inventions are the result of such collaborations.

Also noteworthy is the participation in several patent pools[8] managed by Via Licensing and Avanci on 3G, 4G and 5G, with three patented inventions that were found to be essential to the standards. The patent pools acquired new participants during the year (with a current total of 54 licensees for the Avanci 3G 4G automotive patent pool) and granted licenses to 63 companies (Via Licensing's LTE and 4G-MG patent pool) and 47 car brands (Avanci's 3G+4G automotive patent pool), respectively.

TIM has equipped itself with a policy that envisages a recognition for patents when first granted and for those that have led to an economic return. The inventors are assigned a reward that takes into account the importance of the patents, assessed by an internal committee.

Research and Development in Brazil

The Architecture & Technology Evolution department[9] is responsible for Research and Development (R&D) activities; its main tasks are to define technological innovation for the network and information technology, to identify evolutionary needs for new technologies and devices, converging architectonic guidelines and strategic alliances in order to use the new business models and guarantee that the network infrastructure evolution is in line with the corporate strategy.

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[7] Intellectual Property Rights.
[8] A consortium of companies that agree to grant a single license for their patents, necessary for a given technology concerned by the standard.
[9] Architecture and Technology Evolution, within the Chief Technology and Information Office (CTIO).

In 2022, the Architecture & Technology Evolution department was made up of 52 people, including telecommunications, electrical and electronic, IT and other specialists with professional skills and experience, which cover all areas of network and IT knowledge, meeting the need to innovate and support research and development activities.

TIM Lab is the multifunction environment focused on innovation, which also plays a strategic role in supporting credibility tests and trials, as well as PoCs (proofs of concepts), collaborating with the main suppliers and technology partners through knowledge sharing, technological infrastructure for interoperability tests, staff assessment and the definition of technical requirements; in synergy with the R&D department, it facilitates innovation activities and promotes collaborations with universities and research institutes.

The TIM Lab Innovation Center has moved to São Cristóvão, Rio de Janeiro, in the State of Rio de Janeiro, has a surface area of 850 m2 and can also be used as an innovation space open to new opportunities, guiding innovation on the Brazilian telecommunications market and acting as national point of reference for R&D[10].

To strengthen the validation capacity regarding new software, features, solutions, technologies, services and devices, and also to expand its current structure in order to carry and develop more businesses and opportunities, in 2023-2024, TIM S.A. has planned additional investments for over 10 million reais.

The Architecture & Technology Evolution Department has continued to work on projects and initiatives for the evolution of the business of TIM, which can be grouped into the following macro groups:

- next generation network;
- with a positive impact on the environment and society;
- future Internet applications;
- Open Lab initiatives.

Next generation network projects

The reassignment of the 1,800 MHz, 850 MHz and 2,100 MHz bands from 2G/3G to 4G, with a multilayer distribution configuration gives TIM S.A. three important competitive advantages:

- a reduction in costs for the LTE implementation[11], the extension of the LTE coverage area and the activation of the carrier aggregation strategy, improving the customer experience through a higher throughput;
- the best indoor coverage. In addition to the expansion of coverage, use of the 850/1,800/2,100 MHz bandwidths could increase the capacity in cities already covered by the LTE bandwidth at 2.6 GHz, at limited additional cost.

In this scenario, over 99% of current LTE terminals are compatible with the 1,800 MHz, 2,600 MHz bands and other available bands. Therefore, the implementation of the multilayer LTE continues to be an excellent strategy that benefits from the spread of devices.

The implementation of the 700 MHz LTE layer has continued to significantly improve coverage expansion and indoor penetration, promoting the presence of LTE on a national level, and consolidating TIM S.A.'s leadership in LTE. 89% of TIM S.A.'s current user base of LTE devices is 700 MHz enabled (December 2021).

At the end of December 2022, 5,370 cities had 700 MHz LTE coverage, namely over 95,4% of the urban population; spectrum cleaning was completed in June 2019 in all cities of Brazil, enabling a bandwidth of 700 MHz.

Also at end 2022, TIM S.A. has covered all cities in Brazil, assuring 100% of nationwide presence, and anticipating the Industrial Plan by one year.

In 2022, TIM S.A. started deploying sites with the n78 band (3500 MHz), according to the regulatory rollout specified in the auction, which means that all capitals in Brazil have TIM's 5G SA (Stand-alone) coverage. Beyond that, TIM has more than double the coverage of its competitors. This frequency band has a 100 MHz bandwidth, that delivers higher throughput, and is currently used in the 5G networks.

Projects entailing a reduction of energy consumption

The expansion of "LTE RAN Sharing", in partnership with other mobile operators in Brazil to fulfill regulatory obligations from the 4G spectrum auction, aims to define the architectural requirements, technical assumptions and specifications for the "LTE RAN sharing[12]" solution, optimizing network resources and costs[13]. At present, this is the largest agreement for RAN sharing worldwide and it supplies 4G services to the main cities of Brazil.

The RAN sharing agreement allows TIM S.A. to promote the spread of LTE in the Brazilian rural areas, thanks to effective sharing of spectrum, access and backhaul.[14] At present and after Oi's acquisition, LTE RAN Sharing is a TIM S.A. and Telefónica partnership, based on the MOCN architecture, expanding the benefits and efficiency of this technical model. The energy consumption recorded for the site, dependent on the access technology and coverage conditions, showed a reduction of up to 10%.

In December 2019, TIM S.A. and Telefónica stipulated new sharing contracts aimed at increasing the network cost efficiency through the following initiatives:

[10] TIM Lab of TIM S.A. also collaborates with TIM Lab Italy, which has more than 50 years of experience.
[11] Long Term Evolution.
[12] Sharing the Radio Access Network - RAN.
[13] Infrastructure costs are mainly associated with the introduction of new radiating systems and other electronic components, passive site infrastructure and transport networks; therefore, the sharing of the resources supplied by LTE RAN makes for a significant optimization of costs for telecommunications operators.
[14] In the telecommunications sector, a backhaul network or return network is the portion of a hierarchical network that includes intermediate connections between the core network (or backbone network) and the small sub-networks at the "margins" of the same hierarchical network.

- Single network: sharing of the 3G and 4G networks in cities with fewer than 30 thousand inhabitants in which both operators provide their services. The underlying idea is to have, in the cities included in the agreement, a single telecommunications infrastructure that is entirely shared by the operators, thereby allowing them to switch off redundant sites and save on energy, rent and maintenance costs. This also allows for greater efficiency in future investments thanks to the sharing of the spectrum in MOCN mode.
- 2G Switch-off: nationwide sharing of the 2G network using GWCN technology, enabling both operators to switch off part (approximately 50%) of their network with the same technology, consequently saving on energy and maintenance costs.

Next generation network projects, future Internet applications, positive impact on the environment and society

Internet of Things - It was back in 2018 that TIM S.A. launched the very first commercial NB-IoT[15] network in South America, to develop innovative services, aware that the mass introduction of the IoT can change the mobile telephony market considerably, because it leverages the creation of services and - amongst others - is a potential tool for agricultural uses, the connection of cars, traceability solutions and social-health care. In 2020, access to the NB-IoT network was extended.

Agrobusiness - Since 2018, together with Nokia and BR Digital, TIM S.A. has been focusing on agro-food potential in Brazil, offering connections in rural areas (not only for business applications but also for the digital inclusion of agrobusiness employees and residents of small towns). In 2020, TIM strengthened its position in relation to vertical agriculture[16], with the creation of the ConnectarAgro ecosystem (conectaragro.com.br) which brings together TIM S.A., solution providers for the agro segment and telecommunication solution providers.

5G - Commercial launch in 2020 involving the following towns: Bento Gonçalves (RS), Itajubá (MG) and Três Lagoas (MS). The technology will be used to supply wireless residential Broadband with FWA (Fixed Wireless Access) technology, exploiting the old frequencies of the 2G, 3G and 4G networks through dynamic spectrum sharing (DSS). In 2022, 5G SA was launched in all the Brazilian capitals, with TIM S.A. as the 5G coverage leader.

Connected Car - In 2021, telemetry and connectivity solutions for Connected Car user services were developed for Stellantis, designed to support the advanced telemetry and Stellantis assistance services for its vehicles, as well as Wi-Fi connectivity and other added value services for car owners. These are the first full digital services for connected cars available in Brazil.

Private Networks - In 2022 TIM started offering private networks, with edge core and Multi-Access Edge Computing (MEC) capabilities on the customer premises, allowing the deployment of high throughput, low-latency, and high availability services on 5G. The first deployments will happen in 2023, at customers in the agri-food and port logistics segments. Also in 2022, TIM ran a Proof of Concept with a customer in the automotive industry, successfully demonstrating an automated quality conformance use case.

LEO Satellites - In 2022 TIM evaluated the use of LEO satellite constellations as the backhaul of mobile access network sites, demonstrating the feasibility of this kind of architecture to solve remote site implementation issues.

Open RAN – In 2020, TIM S.A., Telecom Infra Project (TIP) and Inatel launched the Open Field Program to leverage open and disaggregated solutions for the Radio Access Network (RAN). The program was postponed because of the COVID-19 pandemic, but the first field tests started in 2022 at Inatel campus in Santa Rita do Sapucaí – MG. During this year, it was possible to validate two OEM vendors in 4G and 5G Open RAN technologies. The initiative will continue during 2023.

5G solutions through Cubo partnership – In October 2022, TIM Hub 5G was launched with demos (FWA, VR gaming, AR for Industry 4.0, 5G notebook, 360° neckband and camera), to promote and co-create with startups. Within Cubo Itaú, TIM Hub 5G allows the collaboration through an experimentation ecosystem where startups, customers, large companies, entrepreneurs, investors, and public institutions are connected by TIM's 5G to develop services, new solutions, and use cases in general. In November 2022, TIM Hub 5G, in partnership with Stellantis, started a call inviting startups to present agribusiness solutions based on 5G technology.

Open Lab initiatives

TIM S.A. joined the Telecom Infra Project (TIP) in 2017, an initiative founded by Facebook, SK Telecom, Deutsche Telekom, Nokia, Intel and other companies, which aims to create a new approach to building and implementing the telecommunications network infrastructure. TIM S.A. transformed TIM Lab into the first TIP Community Lab in Latin America, available to TIP members to create universal standards for solutions (initially transport networks, Open Optical Packet Transport working group), to overcome the challenges related to interoperability of different supplier products.

In 2018, TIM S.A. also joined, together with Vodafone and Telefonica, a new working group within the TIP, called DCSG (Disaggregated Cell Site Gateway[17]). This project is an opportunity to define a common set of operator requirements and coordinate with companies that manufacture devices, which have wider and more flexible capacities and are cheaper; in June this year, the main functions of the solution were demonstrated with the help of Facebook, core EDGE suppliers and TIP members.

[15] Narrowband Internet of Things (NB-IoT) is an LPWAN (Low Power Wide Area Network) radio technology standard developed by 3GPP to enable communication with a wide range of cellular devices and services.
[16] Above ground crops in closed large greenhouses, which are on several height levels, air-conditioned and automated. These systems are 75% more productive than traditional field agriculture and consume about 95% less water.
[17] Based on an open and unbundled architecture, the new DCSG is designed for the economic backhaul of cellular site traffic on existing mobile networks and emerging 5G infrastructures.

Finally, in 2020, TIM S.A. and the TIP partners completed their validation of the TSS (Total Site Solution), an inexpensive, unrestricted 4G NodeB solution, powered by solar energy and connected by satellite to the core TIM S.A. network, to be used in remote zones with low population density. During the year, TIM also adhered to the OpenRAN initiative with the OpenField project, to validate OpenRAN 4G and 5G solutions focused on the separation of hardware and software at RAN level.

CONSOLIDATED NON-FINANCIAL STATEMENT

TIM, as a Relevant Public Interest Entity (PIE), has prepared and presented a "Consolidated non-financial statement" as a "separate report", as provided for by article 5 *Statement positioning and disclosure regime* of Legislative Decree 254/2016, on the disclosure of non-financial information and diversity information by some companies and some large groups. Moreover, a report issued by the appointed external auditor pursuant to article 3, subsection 10 of Legislative Decree 254/2016 is annexed to the "Consolidated non-financial statement"; the assignment was given to EY S.p.A..

The Consolidated Non-Financial Statement is available in the sustainability section of the website gruppotim.it.

EVENTS SUBSEQUENT TO DECEMBER 31, 2022

See the Note "Events Subsequent to December 31, 2022" in the Consolidated and Separate Financial Statements at December 31, 2022 of the TIM Group and TIM S.p.A., respectively.

BUSINESS OUTLOOK FOR THE YEAR 2023

The 2023-2025 Industrial Plan follows the transformation process started in 2022. Despite a macroeconomic context that has changed considerably compared with last year, the new plan continues on from the previous one and with the project presented at the Capital Market Day on July 7, 2022. More specifically, thanks to the 2022 results that exceed expectations, the plan envisages a further acceleration at a Group level.

The Plan strategy results therefore in the definition of the following Group targets for 2023:

- Group revenues from services expected to grow low single digit with the domestic business essentially stable and high single digit growth in Brazil;
- **Organic** Group EBITDA expected to grow mid single digit with the Domestic business stable/low single digit growth and Brazil growing low double digit;
- **Organic** Group EBITDA After Lease expected to grow low to mid single digit;
- Group capex expected for approximately 4.0 billion euros, of which 3.1 billion euros in the domestic sector.

The above targets refer to the plan based on the current organizational and business model.

The optimized corporate configuration envisages the following strategies:

- **TIM Consumer**: initiatives continue to implement the premium positioning strategy “Value vs. Volume”, with the aim of standing out from the competition. The gradual repricing of the customer base will also continue, along with the introduction of inflation adjustment mechanisms.
- **TIM Enterprise**: Growth above the reference market is expected for 2023-2025, with a CAGR revenue of 6% over the plan period, thanks to the increased standardization and industrialization of offers and the consolidation of a bundled offer for the Public Administration .
- **TIM Brasil**: The company continues to focus on a value strategy and will enjoy additional growth impetus from the integration of Oi's assets, continuing on its path towards a “Next Gen Telco”.
- **NetCo**: TIM's strategic priorities are to push strongly for the migration of lines to FTTH technology, associated with an ambitious plan to cover the fixed and mobile networks. By 2025, the Group aims to reach 48% of the country's property units with FTTH. In the mobile segment, the priority is to maximize 5G coverage, which by 2025 will reach 90% of the population.

MAIN RISKS AND UNCERTAINTIES

Risk governance is a strategic tool for value creation.

The TIM Group has adopted an Enterprise Risk Management model that is constantly evolving, aligned with international regulations and standards, to allow the identification, assessment and management of risks in a uniform way within the Group, highlighting potential synergies between the actors involved in the assessment of the internal control and risk management system. The Enterprise Risk Management process is integrated with the strategic and operative planning processes and is designed to identify potential events that may influence business activity, so as to manage the risk within acceptable limits and provide reasonable assurance on achievement of the corporate objectives.

The Enterprise Risk Management Model adopted by the TIM Group:

- identifies and updates, in collaboration with the Risk Owners, the comprehensive portfolio of risks to which the Group is exposed by means of an analysis of the Industrial Plan and the most significant investment projects, the monitoring of the reference context (e.g. macroeconomic and regulatory), specific analyses of risks to which corporate assets may be exposed, the monitoring and continuous analysis of the risk profile, so as to intercept any changes and/or new risk scenarios;
- qualitatively assesses the risks not just individually but also in terms of the portfolio, taking into account correlations:
- supports the management in defining and monitoring risk mitigation plans.

In this context, we highlight the continued Russia-Ukraine conflict and the possible increases in costs connected with inflation pressure. In addition, non-exhaustively, the following additional factors are mentioned: a change in market context, entry of new potential competitors in the fixed-line and mobile sphere, the initiation of procedures by Authorities and consequent delays in the implementation of new strategies, requirements connected to the exercise of the Golden Power by the Government with effects to be assessed in terms of strategic choices and timing of the Plan objectives.

Risks related to the business and industry

Risks related to competition

The telecommunications market continues to maintain a high level of competition that for the TIM Group entails risks of a reduction in market share and pressure on prices in the geographical areas in which it operates. The complex framework has been added to in the fixed market by the recent launch of Iliad, which was already operating on the mobile market.

In addition to the traditional services of the core business, the importance and competition on the innovative services and converging offers market grows, with the extension towards the world of contents, which increases both opportunities and risks for the operators.

On the infrastructural side, competition remains with small local operators but above all with the operator Open Fiber for the supply of fiber optic access connections.

The macroeconomic situation and geopolitical tension have re-sparked inflation on all levels. In most European countries, a macroeconomic context with high levels of inflation is virtually unknown to telecommunications operators, because previous experience dates back to periods prior to market liberalization and for many years now, the pricing dynamics of the TLC world have been deflationary. The onset of a phenomenon of greater inflation may lead operators to make changes to price in connection with the inflation. TIM has warned the industry regulator of the need to adjust the prices of certain wholesale components but there are competitive type risks where the management of inflation is not homogeneous between operators, for example, introducing opportunities for tariff arbitrage.

The evolution of the telephony market and the distribution of contents has entailed the stipulation of multi-year contracts that in some cases require TIM to pay prices to the counterparty by way of guaranteed minimums. The valuation of these contracts and the estimation of the associated costs is subject to numerous uncertainties that include, amongst others, market dynamics, rulings by the market regulatory authorities and the development of new technologies in support of the service. These estimates are revised from time to time on the basis of the final data in order to make sure that the provisional figures remain within the reasonably foreseeable range. Not all the factors mentioned are under the company's control hence they could have a significant impact on future forecasts regarding the performance of the contracts, the estimated amount of (positive or negative) margins and the cash flows that are generated.

Competitive risks in the Brazilian market lie in the rapid transition of the business model tied to both traditional services and the more innovative ones. As the consumption patterns of the customer base change (migration from voice to data services), service providers need to act swiftly in upgrading their infrastructure and modernizing their portfolios of products and services. In this context, the TIM Brasil group could be impacted by the need for rapid development of technologies and infrastructures.

To achieve the strategic objective of mitigating regulatory constraints, reducing the level of debt and increasing the focus on the reference markets, a transformation process was launched aimed at overcoming the structure of a vertically integrated operator with the possibility of separating the infrastructural assets of fixed network from the services with an articulation in separate entities:

- **NetCo**: the network company in Italy, which will also include national and international wholesale business and assets.
- **ServiceCo**: the service company, which will comprise three business units: TIM Enterprise, dedicated to large Italian enterprises and the Italian public administration (and potentially a further spin-off of this business unit into a separate entity); TIM Consumer, serving Italian families, private individuals and small and medium enterprises; and TIM Brasil, for the Brazilian market.

Risks related to the development of fixed and mobile networks

To maintain and expand our customer portfolio in each of the markets in which the TIM Group operates, it is necessary to maintain, update and improve existing networks in a timely manner. A reliable and high-quality network is necessary to maintain the customer base and minimize terminations to protect the Company's revenues from erosion.

The maintenance and improvement of existing installations depend on the Group's ability to:

- deliver network development plans within the time-frames contemplated by business development plans and with the necessary level of effectiveness/efficiency;
- upgrade the capabilities of the networks to provide customers with services that are closer to their needs;
- increase the geographical coverage of innovative services;
- upgrade the structure of the systems and the networks to adapt it to new technologies;
- sustain the necessary level of capital expenditure in the long term;
- expand the capacity of its existing fixed and mobile networks to cope with the increased use of the bandwidth.

A great many of these activities are not entirely under TIM's control and may be impacted by applicable legislation. If TIM is unable to maintain, improve or update its networks, its services and products may be less attractive to new customers and it may lose existing customers to competitors.

Unforeseeable instant increase in traffic

Considerable, unforeseeable instant increases in traffic due, for example, to live video events streamed on the network by an OTT (Over The Top) may, in some cases, have a major impact on the overall performance of the TIM (fixed and mobile) network for the entire duration of the event, causing slow-downs or temporary blocks to communication, with consequences in terms of reputation and customer satisfaction.

4.5G/5G Broadband and the Internet

The continuous development of Internet and Broadband services is a strategic goal for TIM, which seeks to increase use of its networks to offset the reduction of traditional voice services. Its capacity to successfully implement this strategy may be negatively impacted if:

- mobile Broadband coverage does not grow as expected;
- the competition grows through to including contiguous market players or technological developments introducing new platforms to access the Internet and/or distribute the Internet;
- it is unable to provide superior Broadband connections and Broadband/mobile services to those offered by its competitors;
- it suffers network downtime or related capacity problems with the network infrastructure;
- it is unable to obtain a suitable return on the investments made in developing its network.

However, the implementation of UBB 4.5G/5G mobile technologies depends on a series of factors, including the availability and selection of cutting-edge technologies by suppliers of TIM networks/platforms and devices. If TIM is unable to achieve its goals for the implementation of an adequate UBB (Ultrabroadband) mobile coverage, it may lose market share to its competitors in this strategically important segment.

UBB fixed access network

One of TIM's goals is to speed up the roll-out of a new telecommunications network that can provide customers with UBB connections, also thanks to the use of public funds tied to the NRRP (National Recovery and Resilience Plan) in the regions in which TIM has been awarded the tender.

However, the implementation of UBB technologies depends on a series of factors, including:

- delays in obtaining the permits and authorizations necessary to install the lines;
- resistance by road managers and public administrations in respect of the use of innovative techniques for excavating and installing fiber optic cables;
- delays in the supply of materials and devices as a result of possible supply shocks;
- increased cost of transport, raw materials and labor of network companies due to inflationary pressure and the increased cost of energy;
- delays in the verifications and controls by SINFI (the national federated infrastructure information system).

If TIM is unable to achieve its goals for the implementation of UBB coverage within the time frame expected, it may lose market share to its competitors in this strategically important segment, which could negatively impact the Group. In addition, in NRRP tenders, any delay in completing commissioning is sanctioned with pre-determined fines that can be very high indeed and long delays may result in complete revocation of the contribution granted.

Cyber security risks

Cyber risk is on the increase worldwide and as such requires continual monitoring by TIM, given the sheer amount of IT assets the company manages in terms of own TLC infrastructure and assets necessary to deliver services to customers, some of which, considered essential, come under the scope of recent legislation governing the National Cyber Security Perimeter.

Cyber attacks can interrupt availability of service and compromise data, putting the company's reputation as supplier of critical national infrastructures at risk, as well as resulting in financial losses, reduction of market share and regulatory sanctions.

In view of these considerations, particular attention was paid to protecting networks from main threats (e.g. viruses, malware, hackers, data theft). With a wide range of attackers (Cyber-Criminals, Cyber-Terrorists, Insiders, etc.), TIM carries out activities not only to safeguard its infrastructure but also – with a strong sense of responsibility – to protect customers' information assets, that are a priority target for the company and for the country system.

As regards prevention, TIM monitors cyber risk analyses, defining security plans for the company's IT assets, to identify the actions necessary to mitigate cyber risk in advance and guarantee a security by design approach, also monitoring the plans of these actions and controls on actual adoption in the field. The company has also prepared advanced test laboratories to test the devices for safety before they are released to the field and isolated environments used to identify possible vulnerabilities in the hardware and software products used in its network.

As for its identification of and response to cyber attacks, the Security Operation Center (SOC), operates 24/7, 365 days a year, in order to manage IT security incidents and help limit their impacts. TIM has also implemented an insurance program to cover cyber risks.

In connection with the Russia-Ukraine conflict, TIM is liaising with the National Cybersecurity Agency (ACN), which has sent TIM a communication relating to the "Possible impacts on national ICT infrastructures in connection with the Ukraine situation".

More specifically, following the evolution of the crisis and the information exchanged on a European level and with NATO, TIM has been invited to raise the level of alert in connection with the cyber risk.

In order to prevent any impacts where similar conditions should occur to those seen in previous cases (NotPetya, Wannacry), in addition to adopting best practices on the matter, CSIRT (the structure established at ACN that, amongst others, issues pre-alarms, cyber bulletins and provides information to the parties concerned in respect of cyber risks) has asked that the level of attention be raised, by way of a priority adopting certain mitigating actions, including:

- verification of the consistency and off-line availability of back-ups necessary to restore in particular core business services;
- increased monitoring and logging;
- creation, update, maintenance and periodic operation of incident response capacity, business continuity and resilience plans;
- availability of key personnel;
- particularly close attention to the cloud environments;
- prioritizing patching;
- monitoring service and administration accounts to detect any abnormal activities;
- monitoring network traffic to analyze abnormal peaks;
- increasing the capacity to protect e-mail infrastructures from spear-phishing activities.

TIM is making every effort to raise the monitoring measures and fight the cyber threat, including in terms of cyber threat intelligence, also and simultaneously increasing physical security measures at the most critical sites.

Business Continuity Risks

The TIM Group's success depends heavily on the ability to ensure the continuous and uninterrupted delivery of the products and services we provide through the availability of processes and the relating supporting assets, which are sensitive to various internal and external threats. TIM has adopted a "Business Continuity Model System" (BCMS) framework in line with international standards, to analyze and prevent these risks.

TIM considers Business Continuity a fundamental factor for the protection of the Group's Value and Reputation, in the provision of its services and in full compliance with what is defined in customer contracts, in sector regulations and, more generally, in consistency with reference methodologies and best practice.

TIM implements an ongoing management and governance process which, supported by the Company Management, ensures that the necessary steps are taken to identify the impact of potential losses, that recovery plans and strategies are practical and that continuity of services is guaranteed through training programs, tests, exercises and periodic updating and revision activities.

TIM also carries out period risk assessments of the corporate assets with a view to assessing and mitigating the risks of possible direct damages and/or interruptions of business, equally implementing specific insurance programs to cover these risks.

In 2021, TIM launched the ISO 22301 certification process (Security and resilience - Business continuity management systems) relating to the governance of its BCMS and the most important processes. To date, 41 processes have been certified in the areas: Technology, Customer Operations, Sales, Financial, Security and

HRO. This will make it possible to both improve the continuity of services offered and provide greater guarantees in this respect to its stakeholders.

Fraud risks

Technological progress means that increasingly sophisticated tools and techniques, which are quick acting and have a considerable economic impact are available for the perpetration of fraud and abuse.

"Conventional" phenomena such as subscription, interconnection, and commercial fraud currently generate the highest part of revenue loss and will continue to be significant in the near future, however new types of Internet-style fraud are gradually gaining more ground (Internet spamming/phishing, service reselling, VoIP bypass, etc.). Furthermore, some specific types of provided services (e.g. wholesale interconnection, voice or data services, Premium services) are potentially at risk of third party use for the construction of fictitious transaction schemes, tax avoidance offenses and/or international money laundering.

The TIM Group has had an established organizational model based on the governance of fraud in place for some time. It envisages a series of fraud risk assessments that, together with the evidence of internal and external fraud management, help identify, plan and monitor the operative supervision of the prevention of and fight against fraud.

The procedure to combat external fraud, drawing on company processes at risk of the offenses contemplated in Italian Legislative Decree no. 231/2001 being committed, sets out internal control mechanisms, including instructions on how employees and Company staff/partners (including suppliers) must behave (prevention). In the detection stage, potential cases of fraud are identified and after a preliminary check of the possible grounds the cases may be subject to Investigation and Tackling. To complete the fraud management end-to-end cycle, the results of actions taken are assessed with monitoring and any actions to improve the fraud management process are identified.

The fight against internal fraud, implemented in compliance with the limits imposed by the recently updated trade union agreements prohibiting distance monitoring of staff at work, is carried out through the detection of information relating to the concentration of anomalous operations that flag-up possible cases of serious wrongdoing.

Risks linked to the main sustainability topics

For many years now, the Group has been actively involving and systematically consulting with its stakeholders with a view to improving the company's environmental, social and governance (ESG) performances. The results of engagement activities, as seen from the materiality matrix, are reflected in the Sustainability Plan, which is key to the Group's three-year Strategic Plan.

The plan of action in support of the ESG strategy aims to assure a concrete, significant impact on business development, which has upheld goals of environmental protection and social inclusion.

Below are the main ESG risks and events that affect TIM:

Climate and the circular economy

The TIM Group value chain and operations have a negative environmental impacts, in particular in terms of greenhouse gas (GHG) emissions and electronic waste (or "e-waste"). Most of the greenhouse gas emissions are generated in the supply chain, whilst electronic waste mainly comes from the end of the life cycle of mobile devices, routers and network devices.

The TIM Group is seeing increasing demands and expectations on the part of customers, institutions, investors and other stakeholders, which call for the management of the negative environmental impacts deriving from greenhouse gas emissions and electronic waste.

There is also increasing regulatory pressure, at both a national and European level, in connection with topics such as energy efficiency in data centers and the extension of the life cycle of electronic devices. These provisions may increase the Company's costs.

The TIM Group has set itself the goal of becoming carbon neutral by 2030, also thanks to the commitment to purchase 100% renewable energy by 2025. In addition, it has also undertaken to reach net zero emissions by 2040 and to reduce the emissions of its value chain (Scope 3) in connection with the purchase of goods and services, the purchase of instrumental assets and the use of products sold to customers, by 47%.

The worsening of climate change, with the continuous increase in global average temperatures increases the probability and severity of extreme weather events, such as heat waves, flooding and wind storms that can cause major interruptions to telecommunications and ICT services, reduce the efficiency of work (hours effectively worked) and consequently impact TIM's business. More extreme weather conditions can also result in the need for additional investments in cooling technology and other, more resilient infrastructures.

Failure to implement circular business models, like the offer of products designed by applying environmentally-sustainable criteria or using recyclable materials can result in fewer cost saving opportunities and the failure to make additional revenues.

Being unable to satisfy the requests and expectations of stakeholders can impact reputation, result in lesser revenues or limit access to sustainable finance.

The increase in electricity prices, the availability of renewable energy certificates or the potential introduction of a carbon tax may also increase the operating costs for the Company.

Social inclusion

The digital divide is an obstacle to the dissemination of digitization, the growth of the country and the correlated connectivity services, with the risk of commercial repercussions.

TIM is very much committed to promoting digital inclusion in Italy, also thanks to NRRP tenders, like those for the "Scuola Connessa" and "Sanità Digitale" or the PSN plan aiming to strengthen the digitization of the Italian public administration. To promote digital inclusion, TIM also looks to digital identity services: more than 5 million services are operative including certified e-mail, digital signature and the public digital identity system (SPID) allow citizens and businesses to access the online services of the public administration. Failure to implement its strategy could damage the reputation even worse than cause a loss in revenues.

Personnel competences and engagement

The capacity to attract and retain qualified, specialized, motivated personnel is key to the success in pursuing the strategic goals and achieving a high level of customer experience.

The search for qualified ICT and Cybersecurity staff is becoming increasingly demanding. Indeed, to secure the right skills, TIM needs to hire, develop and withhold highly-qualified employees a lack of which can impact TIM's capacity to develop new business areas or those enjoying strong growth and consequently prevent it from succeeding in the pursuit of its strategy.

Financial risks

The TIM Group may be exposed to financial risks, such as risks arising from fluctuations in interest rates and exchange rates, credit risk, liquidity risk and risks related to the performance of the equity markets in general, and, more specifically, risks related to the performance of the share price of the TIM Group companies.

Generally, the TIM Group hedges exposure in foreign currencies but not the risk of transfer relating to its foreign subsidiaries. According to the Group policies, hedging of the exposure in foreign currencies relating to the financial liabilities, is mandatory. The performance of the euro exchange rates with respect to the other currencies (in particular the Brazilian real) may have a negative impact on the consolidated results. Appreciation of the euro with respect to the currencies of certain countries in which the TIM Group operates or has made investments, will reduce the related value of the revenues or assets, of the transactions implemented in such countries and, therefore, may have a negative impact on the operating profit or financial position. In addition, the TIM Group has stipulated, and may continue to stipulate, an increasing portion of loans in currencies other than euro – primarily in US dollars and the British pound sterling. In line with its risk management policies, TIM generally hedges exposure to the exchange rate risk relating to liabilities not held in euros through cross-currency and interest rate swaps. However, the hedges may not manage to effectively protect the TIM Group from adverse changes in the exchange rates.

In addition, the TIM Group is also exposed to the interest rate risk on the portion of its consolidated gross debt that is index-linked to variable rates. The decision to maintain a certain debt structure at fixed and variable rates aims to minimize the negative impact of the interest paid and is partially achieved through the use of derivatives, through which fixed-rate liabilities are synthetically converted into variable-rate instruments. Any change to interest rates that has not been adequately hedged by derivatives may increase financial liabilities in connection with TIM's variable rate debt, which may have negative impacts on the results of its transactions and on cash flows.

An increase in sovereign spreads and the risk of default they reflect, in the countries in which the TIM Group operates, may impact the value of its assets in such countries.

TIM may also be exposed to financial risks such as those linked to the performance of the stock markets in general and, more specifically, risks linked to the trend of the share price of the TIM Group companies.

These risks may adversely impact the earnings and the financial structure of the Group. Accordingly, to manage those risks, the TIM Group has established guidelines, at central level, which must be followed for operational management, identification of the most suitable financial instruments to meet set goals, and monitoring the results achieved.

In particular, in order to mitigate the liquidity risk, the TIM Group aims to maintain an "adequate level of financial flexibility", in terms of cash and syndicated committed credit lines, enabling it to cover refinancing requirements at least for the next 12-18 months.

Risks related to macro-economic factors

The TIM Group's economic and financial situation, including its capacity to support the expected level of cash flows and business margins, depends on the influence of numerous macroeconomic factors such as economic growth, consumer confidence, interest rates, inflation rate and exchange rates in the markets where it operates.

These factors come in addition to the uncertainties tied to the evolution of the war in Ukraine and the structural transformation of the energy markets.

In 2022, the Italian GDP growth expectations were raised to values very close to 4%. This growth was obtained thanks to the positive contribution made by the manufacturing and tourism segment. By contrast, the continuation of the war in Ukraine and the performance of commodity prices largely above average levels, will have a negative impact over the coming months, reducing the growth forecast for 2023 to a value below half a percentage point.

The annual average inflation recorded in 2022 of above 8% is due to a more generalized increase in prices and that no longer only regards energy. Despite some early signs of a slow-down, inflation is reducing the buying power and the value of financial assets of the families and businesses. The high levels of inflation have led the ECB to raise interest rates, which has further weakened the spending power of families and businesses.

The increase in the energy prices impact European industry, especially the more energy-intensive sectors. The shock of the energy supply has revealed the dependency of European countries on fossil fuels. The greater uncertainty is tied to the growth of the other major world economies, possible developments of the war in Ukraine and its possible repercussions both in terms of sanctions and impacts on the energy market.

With regard to the cost of energy, TIM Group has implemented a program that, on the domestic perimeter, has made it possible to cover most of the 2022 and part of the 2023 requirements in advance.

One point worthy of particular attention is the impact that the current geopolitical context may have on the supply chain. More specifically, a scenario of inflation affecting energy costs can impact transport costs and commodity costs too. In addition, the continued Chinese lock-down has caused congestion in the major ports, an increase in average delivery time and difficulties in procuring certain materials and devices necessary for network development and some contracts.

For Brazil too, growth forecasts for 2022 have been raised, approaching 3%. In general, Brazil suffers the slow-down of the global economy, in particular the USA and China.

Also following a restrictive monetary policy that helped somewhat restore the credibility and stability of the Brazilian currency and limit inflation, a slowing of growth is expected for the Brazilian economy in 2023, which should settle at around 1%. The reduction in growth and the need to maintain subsidies for the poorer portion of the population, who are experiencing difficulty in coping with the rise in the cost of petrol and food products, coupled with the growing public and private debt are the main risks and challenges the country is facing following the presidential elections at the end of the year.

Geopolitical uncertainty

The Ukraine-Russia conflict has uncertain implications that should become clearer over time. At present, the most evident impact of the geopolitical situation on the Group's business is mainly indirect, with consequent spiraling costs of energy commodities and transport costs.

If the military, economic and political tensions should continue to grow, the situation could have major consequences on global safety with an increase in risks for the Group (staff protection and safety, cyber attacks on the computer systems and networks of both TIM and its customers, supply chain shock).

The TIM Group does not have a presence in Ukraine and has a very limited presence in Russia through its subsidiary Telecom Italia Sparkle S.p.A., for which there could be repercussions in commercial relations, even if not present to date, in the collection of trade receivables and in assets present in the country as well as on the implementation times of international investment projects, the variation of which, although dependent on the developments of the conflict, is currently considered by the Company to be insignificant.

New COVID-19 variants

Although the peak of the COVID-19 pandemic has passed, the possibility of new outbreaks due to new variants cannot be excluded entirely. This could impact the TIM Group's operations and may lead to a decline in roaming volumes, lesser customer growth, an increase in bad debt, negative effects on network maintenance and the supply chain with a consequent reduction in margins, revenues or delays in cash flows.

Risks relating to the legislative and regulatory context

The TIM Group may be exposed to risks of non-compliance (Compliance Risks) due to non-observance/breach of internal (self- regulation, such as, for example, bylaws, code of ethics) and external rules (laws, regulations, new accounting standards and Authority orders), with consequent judicial or administrative penalties, financial losses or reputational damage.

The TIM Group aims to ensure that processes, and, therefore, the procedures and systems governing them, and corporate conduct comply with legal requirements. The risk is associated with potential time lags in making the processes compliant with regulatory changes or whenever non-conformances are identified and is monitored by the dedicated internal control system.

The TIM Group has to deal with disputes and litigation with tax authorities and government agencies, regulators, competition authorities, other telecommunications operators and other entities. The possible impacts of such proceedings are generally uncertain. In the event of settlement unfavorable to the Group, these issues may, individually or as whole, have an adverse effect, which may even be significant, on its operating results, financial position and cash flows.

Regulatory risks

The electronic communications industry is highly regulated. As such, new decisions by the Italian Communications Authority (AGCom) may lead to changes in the regulatory framework that may affect the expected results of the Group and the guidance announced to the market. In addition, the position of significant market power held by TIM In the fixed-line access markets and the structure of the mobile markets results in high levels of scrutiny from the AGCM (the Italian Competition Authority) over competition in the sector.

The main elements that introduce uncertainty are:

- lack of predictability in start-up timing and consequent final decisions in new proceedings by AGCom and AGCM (the Italian Competition Authority);
- AGCom decisions with retroactive effect (for example, the revision of prices applicable to past years and the effectiveness and actual implementation of repricing policies, also following administrative rulings);
- AGCom decisions that can influence the technological choices, with potential impact on the timing of return on infrastructure investment;
- any AGCM (the Italian Competition Authority) decisions that can limit TIM's competitive capacity (for example, in terms of minimum retail prices to guarantee replicability);
- any alleged inadequacy in the implementation of processes and systems for the management of regulated services, identified by AGCom or AGCM (the Italian Competition Authority);

- any AGCom or AGCM (the Italian Competition Authority) decisions that impose constraints on the pricing of fixed-line and mobile offers on the basis of consumer protection legislation.

General Data Protection Regulation (GDPR)

Regulation (EU) 2016/679 (General Data Protection Regulation, GDPR), which became directly applicable as from May 25, 2018 and has been enacted in Italy by Legislative Decree no. 101/2018 has increased administrative fines considerably compared to the Data Protection Act previously in effect, and in some cases fines of up to 20 million euros may be administered, or in the case of companies, of up to 4% of their global annual turnover of the previous year, if this amount is higher than 20 million euros.

In order to guarantee - in TIM and under the scope of the Group Companies - the conformity of personal data processing with the GDPR and the Personal Data Protection Code (Italian Legislative Decree no. 196 of June 30, 2003), TIM adopts all the initiatives necessary to comply with said provisions. More specifically, in 2022, a project was launched to revise TIM's privacy model, which resulted in the update of the processing register and the texts of all disclosures on personal data processing, provided by TIM and the other Group companies to different types of Data Subjects (e.g. customers, employees, visitors). The manual for drafting the Privacy Impact Assessment and the policy for the exercise by data subjects of their privacy rights were updated, taking into account, amongst others, the amendments made to Art. 132 of the Privacy Code by Italian Legislative Decree no. 178 of November 23, 2021.

The Company's operative processes have been adapted according to the principle of privacy-by-design, with special attention paid to the commercial, relations with customers and technological processes, adopting the methods defined by corporate regulations dedicated to the application of the GDPR and the provisions of the Data Protection Authority. Personal data processing, where specific risks are entailed, is subject to preventive Privacy Impact Assessment (PIA) according to the indications of the European Data Protection Board (EDPB), it is censused and the related responsibilities are attributed to the suitable managerial level of the Company's organization, as envisaged by the Privacy Code in application of the accountability principle laid down by the GDPR.

TIM constantly monitors the evolution of the rules, regulations and opinions adopted by the Data Protection Authority (GPDP), takes all steps necessary to ensure compliance with such provisions and also undertakes to maintain and continuously verify the effectiveness of the controls adopted.

However, the risk of shortcomings in the implementation of security measures, in compliance with legal requirements governing data processing, in applying rules on data storage, in notifying data breaches by the mandatory strict (and narrow) deadlines, could lead to disputes with the data protection authority and the consequent application of sanctions. In addition, the risk of personal data breach can lead to disputes with data subjects and reputational damages, consequently impacting TIM's business.

Health and Safety at Work

Compliance with safety at work requirements is assured in TIM through the application of current applicable legislation starting from when the risk assessment is performed and updated from time to time, along with the relevant document. In 2021, ISO 45001:2018 certification was also achieved in relation to the design, development, maintenance and management of the properties for office and mixed use coming under the purview of the Real Estate department.

As regards the management of the impacts of the COVID-19 pandemic, TIM immediately took all steps necessary to fully implement the emergency provisions issued by the government and regional authorities, in multiple tranches, to limit the virus contagion.

From 2020 onwards, weekly smart working has been extended to all professional figures able to do so, including call center operators, and specific prevention and protection protocols defined, modulated taking into account the specific nature of the work at hand, for all those needing to continue to work on-field (technicians, store operators and data center operators), equipping them with suitable Personal Protection Equipment and, in line with the legal guidance and taking into account government and health authority guidelines, in accordance with Italian Legislative Decree no. 81/2008, a specific document has been formalized dedicated to COVID-19 and setting out all staff protection measures aimed at preventing contagion, updated during the early months of 2022 in connection with the legislative changes.

In addition, TIM has supported employees with dedicated initiatives, such as:

- a continuous information and awareness-raising campaign intended for all personnel;
- a health welfare campaign, of voluntary adhesion, based on serological and rapid antigen tests (from June 2020 to March 2021) aiming to verify the degree of immunity to COVID-19 by means of antibody response, intended mainly for personnel who have continued to work in the field during the emergency and that involved approximately 12,000 employees. Since 2021, the campaign was extended to include all TIM employees, with the collaboration of ASSILT;
- a flu vaccine campaign, again voluntary, between end 2020 and early 2021, directed towards all TIM Group people, which was taken up by approximately 5,000 employees; the vaccination campaign was reproposed in November 2021, again on a voluntary basis, and this time taken up by approximately 3,800 employees;
- psychological support from external professionals;
- specific procedures for handling any cases of ascertained or suspected positivity to COVID-19, as well as specific insurance cover for employees in the event of hospitalization following contagion with COVID-19;
- criteria for interregional and international mobility for proven working needs, always within the limits set by the schemes defined by the competent health authorities;
- preparation of specific Site Regulations necessary to return safely on April 1, 2022;
- starting April 1, 2022, all employees returned on site, according to the following criteria linked to the new way of smart working: 3 days a week for the daily model and 2 weeks a month for the weekly model;

- from May 1, 2022 onwards, as the obligation to have and display a green pass ceased, no further verifications of such have been carried out;
- starting July 15, 2022, in line with the "Shared update protocol between the government and social parties setting out measures for fighting and limiting the spread of the SARS-CoV-2/COVID-19 virus in workplaces", TIM has introduced the recommendation, which is no longer an obligation, to use FFP2 masks in all closed workplaces shared by multiple workers or open to the public or where in any case it is not possible to maintain interpersonal distances of a meter, due to the specific nature of the work carried out. In this respect, FFP2 masks have been made available to all employees.

Golden Power

The issue of the "Golden Power" Decrees that give the government special powers over corporate structures in the defense and national security sectors, as well as for activities of strategic importance in the telecommunications sector, affect the public-private relationship, also enriching the value of the technological assets and services could, on the one hand, limit TIM's autonomy in going about its business in the area of strategic services, but on the other, TIM, as strategic operator, can guarantee advantages to its shareholders, making a change to TIM's controlling shares more complex and thereby protecting the investments, guaranteeing a higher level of security for the assets and strategic services.

In summary, the Prime Minister established that the Company is subject to the obligations pursuant to Legislative Decree no. 21/2012 (the "Golden Power Decree", setting out special powers rules) on September 28, 2017, as a business that:

- carries out "activities of strategic importance for the defense and national security system" (as per article 1 of the Decree Law) and
- possesses networks and systems "necessary to ensure the minimum supply and operation of essential public services" and goods and relationships "of strategic importance for the national interest" in the communications sector (as per article 2 of the same Decree Law).

The regulatory architecture relating to TIM, consequently, involved a first phase in 2017 on the issue of the Prime Ministerial Decrees of October 16 and November 2.

With the ruling of October 16, 2017, the Prime Minister exercised the special powers provided for in article 1 of the Golden Power Decree by imposing specific provisions and conditions on TIM and the subsidiaries Telecom Italia Sparkle and Telsy. Amongst others, the measures concern corporate and organizational governance; in particular, the obligation to ensure the presence on the respective Boards of Directors of a Security Chief Executive Officer - currently coinciding with the Chief Executive Officer - (who has Italian citizenship and security authorization) and the establishment of a Security Organization unit.

With a ruling on November 2, 2017, the Prime Minister's Office also exercised the special powers provided for in article 2 of the Golden Power Decree, through the imposition of further requirements and conditions with the aim of assuring suitable development plans, able to guarantee a continuity of supply of the universal service.

Failure to observe the provisions envisaged in order to exercise the power of veto, except where the matter is an offense, results in the application of a pecuniary administrative sanction of up to double the value of the transaction and in any case no less than 1% of the cumulative turnover.

The government's ruling has subsequently evolved through Decree Law no. 21/2022 (Urgent measures to combat the economic and humanitarian effects of the Ukraine crisis), converted with amendments by Italian Law no. 51/2022, which introduced new features regarding both corporate management and 5G technology-based communication services.

The government's ruling was subsequently integrated with the Law of May 20, 2019, no. 41 which included measures relating to electronic Broadband communication services based on 5G technology within a wider framework of urgent measures, which, for TIM, during the two years 2019-20, was followed by specific implementing decrees (Prime Ministerial Decrees of September 5, 2019, July 6, 2020 and August 7, 2020).

As regards the latter issue, by this Decree, the legislator renewed the close attention paid to 5G, insofar as an activity of strategic importance for defense and national security, extending the scope of reference from the non-EU supplies taken as reference by the previous Law no. 41 of 2019 to include any supply relating to 5G, regardless of the geographic location in which the supplier is based, and redefined the State's special powers.

More specifically, the Decree made it mandatory for companies to preventively notify the Presidency of the Council of Ministers an Annual Purchasing Plan of goods and services in 5G technology, with the possibility of making four-monthly updates.

The Plan is subject to approval by the government, which may potentially also lay down conditions or requirements; failure to notify results in a sanction being applied to the company in the amount of up to 3% of its turnover.

National Cyber Security Perimeter

The framework of provisions regarding National Security has flanked the Golden Power regulations with those relating to the National Cyber Security Perimeter, established by Law no. 133 of November 18, 2019, converting Decree Law 105/2019.

The regulations in this area are hinged on three elements, governed by the subsequent implementing decrees, which constitute the same number of obligations for TIM, as strategic operator: the adoption of security measures aimed at guaranteeing high security levels for ICT assets, the secure award of ICT supplies and the notification of security incidents.

Compliance with the obligations laid down by regulations governing the PSNC (National Cyber Security Perimeter) means, for TIM, an impact in organizational terms and as regards operative processes, in line with the restrictions aiming to guarantee a high level of security of networks, information systems and the computer services of public administrations, public and private operators and entities based in Italy, in consideration of the fact that such elements are responsible for the performance of a service that is essential for the maintenance of civil, social or economic activities, fundamental for the interests of the State and the malfunctioning, interruption, even partial, or improper use of which could damage national security.

Failure by TIM to observe the regulatory obligations entails administrative fines of up to 1.8 million euros. In addition, the use of products and services without communication or passing of tests or in breach of the conditions envisaged may result in the application of the accessory administrative sanction of incapacity to hold appointments of management, administration and control in legal entities and companies, for a period of three years from the date on which the violation is ascertained. Finally, anyone providing information, data or elements of fact that are not true, in order to hinder or impact procedures and inspections and supervision, shall be punished by imprisonment from one to three years.

INFORMATION FOR INVESTORS

Share capital of TIM S.p.A. at December 31, 2022

Share Capital	11,677,002,855.10 euros
Number of ordinary shares (without nominal value)	15,329,466,496
Number of savings shares (without nominal value)	6,027,791,699
Number of TIM S.p.A. ordinary treasury shares	115,942,196
Percentage of ordinary treasury shares held by the Group to total share capital	0.54%
Market capitalization (based on December 2022 average prices)	4,465 million euros

On May 25, 2016, the Shareholders' Meeting approved amendments to the company name, introducing the name "TIM S.p.A." as an alternative to "Telecom Italia S.p.A.".

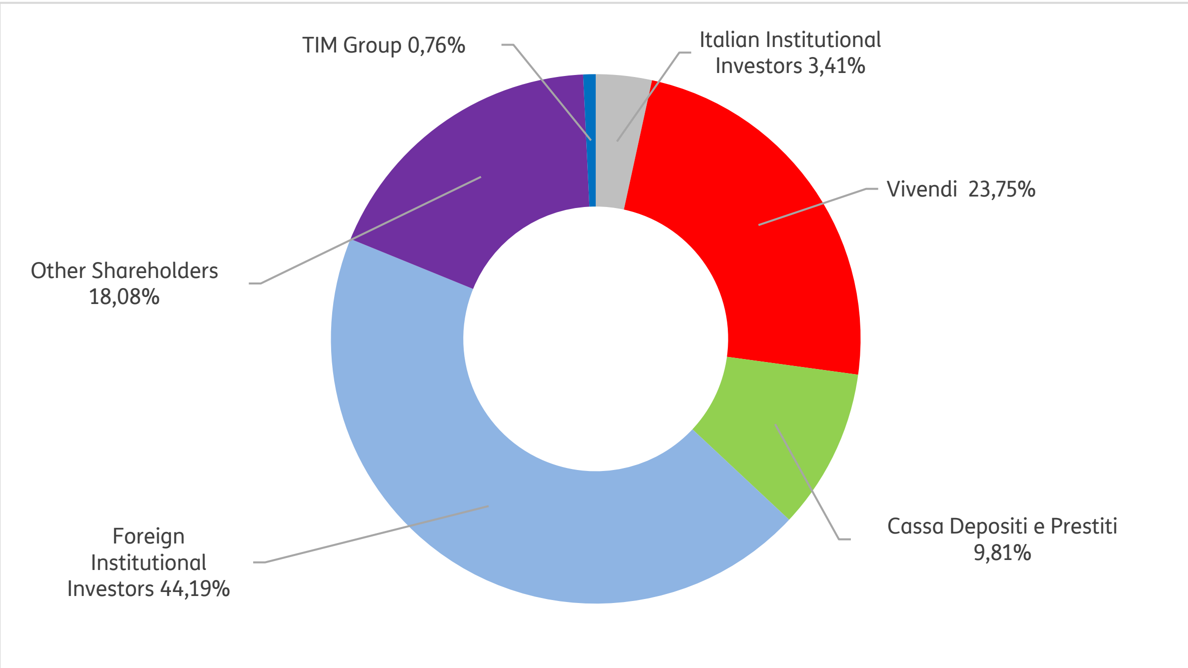
TIM S.p.A. ordinary and savings shares are listed on the Italian stock exchange (FTSE index), whereas the ordinary shares of TIM S.A. are listed in Brazil under B3.

	TIM - Telecom Italia		TIM S.A.
Code	ordinary shares	savings shares	
Stock exchange	IT0003497168	IT0003497176	BRTIMSACNOR5
Bloomberg	TIT IM	TITR IM	TIMS3 BZ
Reuters	TLIT.MI	TLITn.MI	TIMS3.SA

Ordinary shares of TIM S.A. were also listed on the NYSE (New York Stock Exchange); share prices are set through ADS (American Depositary Shares) representing 5 ordinary shares of TIM S.A.

Shareholders

Shareholder composition according to the Shareholders Book at December 31, 2022, supplemented by communications received and other available sources of information (ordinary shares):



Major Holdings in Share Capital

Based on the Shareholders Book, the notifications sent to Consob and to the Company pursuant to article 120 of Legislative Decree No. 58 of February 24, 1998 and other available information, the following major shareholdings **(above the threshold of 3%)** in the ordinary capital of TIM S.p.A. exist:

Holder	Type of ownership	Percentage of ownership
Vivendi S.A.	Direct	23.75%
Cassa Depositi e Prestiti S.p.A.	Direct	9.81%

Common Representatives

The special meeting of the savings shareholders held on June 28, 2022 renewed the appointment of Dario Trevisan as the common representative for three financial years, up to the approval of the financial statements for the year ended December 31, 2024. Upon completion of the shareholders' meeting called to approve the financial statements for the year 2024, the general category meeting will be called to renew the common representative of savings shareholders.

Rating at December 31, 2022

At December 31, 2022, the three rating agencies – Standard & Poor's, Moody's and Fitch Ratings – rated TIM as follows:

	Rating	Outlook
STANDARD & POOR'S	B+	Negative
MOODY'S	B1	Negative
FITCH RATINGS	BB-	Negative

Waiver of the obligation to publish disclosure documents for extraordinary transactions

On January 17, 2013, the Board of Directors of TIM S.p.A. resolved to exercise the option, as per article 70 subsection 8 and article 71 subsection 1-bis of the Consob Regulation 11971/99, to waive the obligations to publish disclosure documents in the event of significant operations such as mergers, demergers, capital increases by means of the transfer of assets in kind, acquisitions and disposals.

Conditions for the listing of shares of parent companies established and regulated by the law of states outside the European Union

TIM S.p.A. confirms the existence as at December 31, 2022 of the conditions referred to in article 15, subsection 1, letter a), b) and c), point i) of Consob Regulation no. 20249/2017 as amended, for the listing of their shares on regulated markets.

RELATED-PARTY TRANSACTIONS

In accordance with Art. 5, subsections 8 and 9 of Consob Regulation no. 17221 of March 12, 2010 concerning "Related-Party Transactions" and subsequent amendments, in 2022, the carrying out of the Transaction of greater importance is noted, as defined by Art. 4, subsection 1, letter a) of the above regulation and by Art. 7 of the Company's Related-Party Transactions Procedure, following the award of the European open tender procedure for the award, by public-private partnership contract, of the development and management of the National Strategic Hub. For a complete description of the Transaction, refer to the Information Document made available to the public in connection with Transactions of greater importance with related parties and prepared in accordance with Article 5 of such regulation.

In addition, there were no transactions concluded that significantly impacted the equity position or results of the TIM Group and TIM S.p.A., nor were there any changes or developments with respect to the related-party transactions described in the 2021 Report on Operations which had a significant effect on the financial position or on the performance of the TIM Group and TIM S.p.A. in 2022.

Related-party transactions, when not dictated by specific laws, were conducted at arm's length. They were performed in compliance with the internal procedure, which sets forth rules designed to ensure the transparency and fairness of the transactions in accordance with Consob Regulation 17221/2010. The current procedure is available on the website gruppotim.it, under the Group section/Governance tools channel.

For information on relationships with related parties, see the Financial Statement Statements and the "Related-party transactions" Note of the Consolidated Financial Statements and the Separate Financial Statements.

ALTERNATIVE PERFORMANCE MEASURES

In addition to the conventional financial performance measures established by IFRS, the TIM Group uses certain alternative performance measures in its internal presentations (business plan) and in external presentations (to analysts and investors) for the purposes of enabling a better understanding of the performance of its operations and its financial position. These indicators in fact represent a useful unit of measurement for assessing the operating performance of the Group (as a whole and at Business Unit level).
Such measures, which are presented in the periodical financial reports (annual and interim), should, however, not be considered as a substitute for those required by IFRS. As these measurements are not defined by the IFRSs, their calculation may differ from the alternative indicators published by other companies. This is why comparability between companies may be limited.
The alternative performance measures normally used are described below:

- **EBITDA**: this indicator is used by TIM as the financial target, in addition to the **EBIT**. These measures are calculated as follows:

Profit (loss) before tax from continuing operations	
+	Finance expenses
-	Finance income
+/-	Other expenses (income) from investments [1]
+/-	Share of losses (profits) of associates and joint ventures accounted for using the equity method[2]
EBIT – Operating profit (loss)	
+/-	Impairment losses (reversals) on non-current assets
+/-	Losses (gains) on disposals of non-current assets
+	Depreciation and amortization
EBITDA – Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets	

(1) Expense/(income) from investments for TIM S.p.A..
(2) Line item in Group consolidated financial statements only.

- **Organic change and impact of the non-recurring items on revenues, EBITDA and EBIT**: these measures express changes (amount and/or percentage) in Revenues, EBITDA and EBIT, excluding, where applicable, the effects of the change in the scope of consolidation, the exchange differences and the non-recurring events and transactions. The TIM Group presents a reconciliation between the "accounting or reported" figures and the "organic excluding the non-recurring items".

- **EBITDA margin and EBIT margin**: TIM believes that these margins represent useful indicator of the ability of the Group (as a whole and at Business Unit level) to generate profits from its revenues. In fact, EBITDA margin and EBIT margin measure the operating performance of an entity by analyzing the percentage of revenues that are converted into EBITDA and EBIT, respectively.

- **Net Financial Debt**: TIM believes that the Net Financial Debt represents an accurate indicator of its ability to meet its financial obligations. It is represented by Gross Financial Debt less Cash and Cash Equivalents and other Financial Assets. The TIM Group presents a table showing the amounts taken from the statements of financial position and used to calculate the Net Financial Debt of the Group.

  To provide a better representation of the true performance of Net Financial Debt, in addition to the usual indicator (renamed "Net financial debt carrying amount"), the TIM Group reports a measure called "Adjusted net financial debt", which neutralizes the effects caused by the volatility of financial markets. Given that some components of the fair value measurement of derivatives (contracts for setting the exchange and interest rate for contractual flows) and of derivatives embedded in other financial instruments do not result in actual monetary settlement, the Adjusted net financial debt excludes these purely accounting and non-monetary effects (including the effects of IFRS 13 – Fair Value Measurement) from the measurement of derivatives and related financial assets/liabilities.

Net financial debt is calculated as follows:

+	Non-current financial liabilities
+	Current financial liabilities
+	Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale
A)	**Gross financial debt**
+	Non-current financial assets
+	Current financial assets
+	Financial assets relating to Discontinued operations/Non-current assets held for sale
B)	**Financial assets**
C=(A - B)	**Net financial debt carrying amount**
D)	**Reversal of fair value measurement of derivatives and related financial liabilities/assets**
E=(C +	**Adjusted Net Financial Debt**

- **Equity Free Cash Flow (EFCF)**: this financial measure represents the free cash flow available for the remuneration of own capital, to repay debt and to cover any financial investments and payments of licenses and frequencies. In particular, the indicator highlights the change in adjusted net financial debt without considering the impacts of payment of dividends, changes in equity, acquisitions/disposals of equity investments, outlay for the purchase of licenses and frequencies, increases/decreases of finance lease liabilities payable (new lease operations, renewals and/or extensions, cancellations/early extinguishing of leases).

  The Equity Free Cash Flow measure is calculated as follows:

	Reduction/(Increase) in adjusted net financial debt from continuing operations
+/-	Impact for finance leases (new lease operations and/or renewals and/or extensions (-)/any terminations/early extinguishing of leases (+))
-	Payment of TLC licenses and for the use of frequencies
+/-	Financial impact of acquisitions and/or disposals of investments
-	Dividend payment and Change in Equity
	Equity Free Cash Flow

- **Capital expenditures (net of TLC licenses)**: this financial measure represents the capital expenditures made net of investments for competence relating to TLC licenses for the use of frequencies.
- **Operating free cash flow (OFCF) and operating free cash flow (net of licenses)**: these financial measures represent the cash flow available to repay the debt (including lease payables) and cover any financial investments and, in the case of OFCF, payments of licenses and frequencies.

  Operating free cash flow and operating free cash flow (net of licenses) are calculated as follows:

	EBITDA
-	Capital expenditures on an accrual basis
+/-	Change in net operating working capital (Change in inventories, Change in trade receivables and other net receivables, Change in trade payables, Change in payables for mobile telephone licenses/spectrum, Other changes in operating receivables/payables, Change in employee benefits, Change in operating provisions and other changes)
	Operating Free Cash Flow
-	Payment of TLC licenses and for the use of frequencies
	Operating free cash flow (net of licenses)

Alternative performance measures after lease

Following the adoption of IFRS 16, the TIM Group presents the following additional alternative performance measures:

- **EBITDA After Lease ("EBITDA-AL")**, calculated by adjusting the Organic EBITDA, net of the non-recurring items, from the amounts connected with the accounting treatment of the lease contracts;
- **Adjusted Net Financial Debt - After Lease**, calculated by excluding from the adjusted net financial debt the net liabilities related to the accounting treatment of lease contracts. TIM believes that the Adjusted net financial debt After Lease represents an indicator of the ability to meet its financial obligations;
- **Equity Free Cash Flow After Lease**, calculated by excluding from the Equity Free Cash Flow the amounts related to lease payments. In particular, this measure is calculated as follows:

+	Equity Free Cash Flow
-	Principal share of lease payments

This measure is a useful indicator of the ability to generate Free Cash Flow.

TIM S.p.A 2022

KEY OPERATING AND FINANCIAL DATA

Revenues: 12,098 millions of euros

EBITDA	EBITDA MARGIN	EBITDA ADJUSTED AFTER LEASE
2,086 millions of euros	22.4% organic excluding non recurrent	2,211 millions of euros

NET FINANCIAL DEBT CARRYING AMOUNT

22,139 millions of euros

ADJUSTED NET FINANCIAL DEBT - AFTER LEASE

18,703 millions of euros

CAPITAL EXPENDITURES & LICENSES

1,744 millions of euros

HEADCOUNT AT YEAR END

35,524 numbers

REVIEW OF KEY OPERATING AND FINANCIAL DATA - TIM S.P.A.

Main changes in the corporate structure

During 2022, the main corporate transactions were as follows:

- *Daphne 3 S.p.A.*: on August 4, 2022, TIM S.p.A. transferred 41% of the share capital of the holding Daphne 3, which has a 30.2% investment in Infrastrutture Wireless Italiane ("INWIT") to a consortium of investors led by Ardian;
- *Movenda S.p.A.*: on July 25, 2022, TIM S.p.A. acquired 100% of the company's share capital, which offers Digital Identity solutions. On December 31, 2022, the merger by incorporation of Movenda S.p.A. into TIM S.p.A. took effect, with accounting and tax effects from July 1, 2022.

The following should also be noted:

- *Polo Strategico Nazionale S.p.A.*: the company was established on August 4, 2022, it deals with the design, preparation, fitting out and management of infrastructure for the supply of cloud services and solutions for the public administration. TIM S.p.A. holds 45% of the Joint Venture's share capital.

During 2021, the main corporate transactions were as follows:

- *Noovle*: starting January 1, 2021, the conferral to Noovle S.p.A. of the TIM S.p.A. business unit comprising the assets and liabilities and employees involved in the supply of services for the Cloud and Edge Computing became effective;
- *FiberCop S.p.A.*: starting March 31, 2021, the conferral to FiberCop S.p.A. of the TIM S.p.A. business unit comprising the goods, assets and liabilities and legal relations organized functionally for the supply of passive access services by means of the secondary copper and fiber network became effective. At the same time, the purchase was completed by Teemo Bidco, an indirect subsidiary of KKR Global Infrastructure Investors III L.P., of 37.5% of FiberCop from TIM and Fastweb has subscribed FiberCop shares corresponding to 4.5% of the company's capital, through the conferral of the stake held in Flash Fiber, which was simultaneously incorporated into FiberCop;
- *acquisition of BT Italia business units:* on June 30, 2021, the purchase of the BT Italia Business Unit was completed, offering services to public administration customers and small and medium business/enterprise (SMB/SME) customers. The purchase also included support for customers of the SMB Business Unit, supplied by Atlanet, the BT Contact Center of Palermo.

Non-recurring events

In 2022 and 2021, TIM S.p.A. recognized **net non-recurring operating expenses** connected with events and transactions that by their nature do not recur as part of continuing operations, which are reported when their amount is material. Non-recurring charges include, among others, any goodwill impairment changes, provisions for regulatory disputes and potential liabilities related to them, liabilities with customers and/or suppliers, and provisions for onerous contracts, charges associated with corporate reorganization/restructuring and prior-year adjustments.

In detail:

(million euros)	2022	2021
Non-recurring expenses (income)		
Revenues	**—**	**5**
Revenue adjustments	—	5
Other income	**(23)**	**(2)**
Recovery of operating expenses	(23)	(2)
Acquisition of goods and services and Change in inventories	**30**	**38**
Expenses related to agreements and the development of non-recurring projects	30	38
Employee benefits expenses	**537**	**358**
Charges connected to corporate reorganization/restructuring and other costs	537	358
Other operating expenses	**76**	**735**
Other expenses and provisions	76	735
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**620**	**1,134**
Goodwill Impairment loss	—	4,120
Impact on Operating profit (loss) (EBIT)	**620**	**5,254**

Non-recurring events for 2022 included:

- 23 million euros in income for recovery of operating expenses;
- 30 million euros for expenses related to agreements and the development of non-recurring projects, as well as costs for purchases relating to supplies that became necessary for the management of the health emergency;
- 537 million euros in employee benefits expenses mainly relating to corporate reorganization/restructuring processes related to outgoing managerial and non-managerial staff, also envisaged in accordance with the application of Art. 4 of Italian Law no. 92 of June 28, 2012 and the former Art. 41, subsection 5bis, of Italian Legislative Decree no. 148/2015, as per agreements signed by the Company during the year with the trade unions;
- 76 million euros of other operating expenses primarily relating to provisions and charges for disputes, settlements, regulatory sanctions and potential liabilities related to them, including 41 million euros relating to a provision for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

Non-recurring events for the year 2021 included:

- 4,120 million euros for the impairment loss on goodwill attributed to domestic business. The impairment test, carried out when drawing up the 2021 Financial Statements, was performed by referring to the flows of the 2022 Industrial Plan and the projections up to 2026 of the domestic market in its current conditions, and using a discount rate updated to the financial market conditions as at December 31, 2021. The new 2022 Industrial Plan is based on the results of the 2021 final accounting, reflects realistic expectations on future developments and outlines all the actions to create value for the shareholders. The year showed an impairment loss, which is attributed entirely to goodwill;
- 735 million euros in other operating expenses, mainly referring to provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic;
- 358 million euros in employee benefits expenses mainly connected with business reorganization/restructuring processes following the application of art. 4 of Law no. 92 of June 28, 2012, as defined in the trade union agreements signed between the Company and the trade unions;
- 38 million euros for expenses related to agreements and the development of non-recurring projects, as well as costs for purchases relating to supplies that became necessary for the management of the health emergency;
- 3 million euros in revenue adjustments and other income.

Operating Performance

(million euros)		2022	2021	% Change	
					organic excluding non-recurring
		(a)	(b)	(a-b)	
Revenues		12,098	12,397	(2.4)	(2.5)
EBITDA	(1)	2,086	2,637	(20.9)	(28.2)
EBITDA Margin	(1)	17.2%	21.3%	(4.1) pp	(8.0) pp
EBIT	(1)	(649)	(4,522)	(85.6)	—
EBIT Margin	(1)	(5.4%)	(36.5%)	31.1 pp	(6.1) pp
Profit (loss) for the year		(3,077)	(8,314)	(63)	
Capital expenditures		1,744	2,294	(24.0)	
		12/31/2022	12/31/2021	Change Amount	
		(a)	(b)	(a-b)	
Net financial debt carrying amount	(1)	22,139	21,937	202	
Adjusted Net Financial Debt	(1)	21,709	20,612	1,097	
Headcount at year end (number)		35,524	37,064	(1,540)	

(1) Details are provided under “Alternative Performance Measures”.

Complex contracts

As part of a process aiming to ensure the identification and definition of the initiatives for the evolution of the internal control system for the management of corporate risks, in 2022, the TIM Group instituted a Technical Committee to supervise complex contracts (the “Technical Committee").

The Technical Committee defined:

- the objective criteria on which basis to classify a contract as a “complex contract”;
- the procedure for the assessment and authorization of complex contracts, which envisages the involvement of multiple subjects and competences able to assess the different risk profiles (board decision-making process);
- the update of the policy regulating the process for formalizing contracts in the Group contracts, envisaging a clear identification and formalization of the reasoning behind the decision-making process to assign complex contracts as well as the related escalation mechanisms, thus strengthening the process for identifying and reconstructing sources, information elements and controls performed.

During 2021, as detailed in the related Annual Financial Report, some contracts for the supply of multimedia contents in connection with the current partnerships, including that between TIM and DAZN, have highlighted a comprehensive negative margin throughout the entire contract duration, with the need to make a provision for a total of 548 million euros for posting a contractual risk provision for onerous contracts at December 31, 2021.

Starting from the 2022 financial year, use of the aforementioned Provision over the contractual term makes it possible to offset the negative item of the margin (EBITDA) - referring to both the operating performance of the business and commitments in terms of prices that TIM is contractually obliged to pay to counterparties - thereby obtaining a null operating margin (organic) for the content business.

In August 2022, TIM and DAZN reached a new agreement that - in amending the clauses previously in place - allows DAZN to distribute football rights to show the TIM Serie A championship matches through any third party, surpassing the previous system of TIM exclusivity. The new contractual structure has no impact on TIM customers, who continue to enjoy matches through TimVision, the most advantageous streaming platform with the best selection of content available on the market. At the same time, the objective is achieved of distributing rights over multiple platforms with a view to developing a more sustainable economic model that would also be less volatile.

During 2022, TIM S.p.A. also recorded a provision of 41 million euros for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

The Provision for contractual risks for onerous contracts at December 31, 2022 came to 247 million euros.

Below are:

- the amount used of the Provision for risks to cover the negative margin;
- the amount of the total organic margins (organic EBITDA) without using the risk provision for onerous contracts.

(million euros)	2022
EBITDA	**2,086**
ORGANIC EBITDA (including use of the risk provision for onerous contracts)	**2,706**
- Use of the risk provision for onerous contracts to cover the negative margin	(346)
ORGANIC EBITDA (excluding use of the risk provision for onerous contracts)	**2,360**

The amount of 346 million euros is the negative margin, for which the provision was used. As far as the portion relating to the football contract with DAZN is concerned, this amount includes both the operating performance of the business and the component linked to the prices that TIM is contractually obliged to pay to DAZN, which is recorded at the end of each football season (June 30, each year), at the same time as use of the related provision set aside.

From a financial viewpoint, the negative margin covered by the Risks Provision has an equal impact on the Net Financial Position and cash flows. For the DAZN contract, TIM is contractually obliged to pay advance installments for each year (July 1-June 30, corresponding to each championship season).

With reference to the multi-year contracts for multimedia contents, which in some cases require TIM to pay the counterparty prices by way of guaranteed minimum, it should be recalled that the valuation of these contracts and the estimation of the associated costs is subject to numerous uncertainties that include, amongst others, market dynamics, rulings by the market regulatory authorities and the development of new technologies in support of the service. These estimates are revised from time to time on the basis of the final data in order to make sure that the provisional figures remain within the reasonably foreseeable range. Not all the factors mentioned are under the company's control hence they could have a significant impact on future forecasts regarding the performance of the contracts, the estimated amount of (positive or negative) margins and the cash flows that are generated.

Rights to use 5G frequencies in Italy

On September 30, 2022, TIM paid the fifth and final installment, of 1.7 billion euros, out of the total of 2.4 billion euros due in fulfillment of the undertakings made by the Company following the award of the rights to use mobile frequency bandwidths pursuant to the "5G Auction" held in 2018 by the Ministry for Economic Development.

In particular, in October 2018, following a public tender process in which 5 Italian mobile operators took part (Iliad, Fastweb, TIM, Vodafone and Wind3), TIM was awarded the rights of use on all bandwidths included in the auction. TIM was awarded 2x10 MHz in the 700 MHz bandwidth (blocks available from July 1, 2022), 80 MHz in the 3.6-3.8 GHz bandwidth and 200 MHz in the 26 GHz bandwidth (both bandwidths available from January 1, 2019).

The total amount of the award was 2.4 billion euros, to be paid in five annual installments as per the forecast collections of the 2017 Budget Law, broken down as follows:

(euros)	2018	2019	2020	2021	2022	Total
Telecom Italia S.p.A.	477,473,285.00	18,342,110.83	110,052,665.01	55,026,332.50	1,738,485,952.97	2,399,380,346.32

Following payment of the last installment, on October 04, 2022 the Ministry of Economic Development notified the guarantor banks of the definitive release of the surety given at the time as guarantee of the payment obligations.

The 5G frequencies allow TIM, together with the other frequency bandwidths already in its possession, to cover all cases of use envisaged by the International Telecommunication Union (ITU) for 5G (IMT-2020 5G), thereby satisfying the needs of the world seeing very strong IoT growth thanks to the possibility of simultaneously managing thousands of connections and Industry 4.0 thanks to the very low latencies and entertainment, thanks to the high transmission speeds (over 2 Gbps) and, finally, the automotive and mission critical applications (Public Safety and Public Protection/Disaster Relief) thanks to the extremely reliable connections.

It should be highlighted that in the 3.4-3.8 GHz bandwidth, TIM is the only Italian mobile operator to have 100 MHz (20 MHz in the 3.4-3.6 GHz bandwidth and 80 MHz in the 3.6-3.8 GHz bandwidth) and is therefore able to offer significantly better latency and throughput than national competitors.

The value of the rights of use for the 5G frequency bandwidths (in Italy) and the related useful lives at December 31, 2022 are detailed as follows:

	Acquisition value (million euros)	Residual amount at 12/31/2022 (million euros)	Useful life	Maturity
694-790 MHz band	680	658	15 years and 6 months	12/31/2037
3600-3800 MHz band	1,686	1,331	19 years	12/31/2037
26.5-27.5 GHz band	33	26	19 years	12/31/2037
	2,399	**2,015**		

Revenues

2022 revenues came to 12,098 million euros (12,397 million euros in 2021), with a decrease of 299 million euros or -2.4%.

Revenues from stand-alone services amounted to 10,387 million euros (-264 million euros compared to 2021, -2.5%) and reflect the impacts of the competition on the customer base and a reduction in ARPU levels. In particular, both revenues from Mobile market stand-alone services (-68 million euros on the previous year, -2.2%), and revenues from the Fixed market stand-alone services (-196 million euros compared to the previous year, -2.6%) dropped, due to the worsening of the Retail segment.

Revenues from Handsets and Bundles & Handsets, including the change in work in progress, amounted to 1,711 million euros in 2022, down 35 million euros compared to 2021, mainly due to a drop in Mobile market sales revenues.

The sales segments show the following changes compared to 2021:

(million euros)	2022	2021	Change
Revenues	**12,098**	**12,397**	**(299)**
Consumer	4,915	5,411	(496)
Business	3,982	3,982	—
Wholesale	1,751	1,942	(191)
Other	1,450	1,062	388

In particular:

- **Consumer:** 2022 revenues of the Consumer segment totaled 4,915 million euros and decreased by (496) million euros on 2021 (-9.2%), suffering the impact of the challenging competition and greater regulation of commercial processes. The trend seen in total revenues also applied to revenues from stand-alone services, which amounted to 4,415 million euros, down by 308 million euros (-6.5% compared to the previous year). In particular:

  - **revenues from Mobile Stand-alone services** amounted to 2,075 million euros, down 86 million euros (-4.0%) compared to 2021, mainly due to the competition and reduction of incoming telephone trade due to the reduction of interconnection tariffs;

  - **revenues from Fixed Stand-alone services** amounted to 2,363 million euros, down on 2021 (-233 million euros, -9.0%), mainly due to the reduction in ARPU levels and the lesser Customer Base (which in 2021, benefited from the government incentive program through the concession of vouchers).

Revenues for Handsets and Bundles & Handsets in the Consumer segment amounted to 499 million euros, down 189 million euros compared to 2021 (-27.4%), and mainly reflected the lesser sales volumes of modems and PCs/tablets (here too do to the end of the government voucher program).

- **Business:** revenues for the Business segment amounted to 3,982 million euros, in line with 2021 (of which +1.9% for stand-alone service revenues). In particular:

  - **total Mobile revenues** in 2022 amounted to 941 million euros with an increase of 6 million euros compared to 2021 (+0.6%), which in particular reflects the increase in service revenues (+7 million euros, +0.8%);

  - **total Fixed revenues** in 2022 came to 3,097 million euros, down 7 million euros on 2021; they are therefore essentially in line with the previous year (-0.2%), recording an increase in revenues from stand-alone services (2.1%) following the performance seen in revenues from ICT services.

- **Wholesale Market:** the Wholesale Market segment revenues in 2022 came to 1,751 million euros, up by (191) million euros (-9.8%) compared to 2021, mainly due to the presence, in 2021, of one-off transactions.

- **Other:** the Other segment records 2022 revenues of 1,450 million euros, up by 388 million euros on 2021; it should be noted, in particular, that starting 2021, the item includes TIM revenues related to the subsidiary FiberCop S.p.A., mainly relating to the sale of infrastructure and network maintenance services.

EBITDA

2022 **EBITDA** was 2,086 million euros (2,637 million euros in 2021), with an EBITDA margin of 17.2%, down 4.1 percentage points on 2021 (21.3%).

Organic EBITDA - net of the non-recurring items - amounted to 2,706 million euros; the EBITDA margin was 22.4% (30.4% in 2021) and records a reduction of 1,065 million euros compared to 2021. In 2022 TIM S.p.A. recorded non-recurring net charges of 620 million euros in total, (1,134 million euros in 2021).

Non-recurring charges include, among others, provisions for disputes, transactions and regulatory sanctions and potential liabilities related to them, liabilities with customers and/or suppliers and provisions for onerous contracts, as well as charges associated with corporate reorganization/restructuring. For further details, in addition to that reported in the "Non-recurring events" chapter of this report on operations, see the Note "Non-recurring events and transactions" in the TIM S.p.A. Separate Financial Statements as at December 31, 2022.

Organic EBITDA including the effect of the use of provisions for onerous contracts came to 2,360 million euros in 2022.

Organic EBITDA, net of the non-recurring items, is calculated as follows:

(million euros)	2022	2021	Changes	
			absolute	%
EBITDA	**2,086**	**2,637**	**(551)**	**(20.9)**
Non-recurring expenses (Income)	620	1,134	(514)	
ORGANIC EBITDA - excluding Non-recurring items	**2,706**	**3,771**	**(1,065)**	**(28.2)**

The following elements also affected EBITDA:

- **Other income**

(million euros)	2022	2021	Change
Late payment fees charged for telephone services	26	29	(3)
Recovery of employee benefit expenses, purchases and services rendered	23	33	(10)
Capital and operating grants	36	26	10
Damages, penalties and recoveries connected with litigation	32	22	10
Estimate revisions and other adjustments	68	71	(3)
Income for special training activities	1	66	(65)
Other	59	75	(16)
Total	**245**	**322**	**(77)**

- **Acquisition of goods and services**

(million euros)	2022	2021	Change
Acquisition of goods	911	1,053	(142)
Revenues due to other TLC operators and costs for telecommunications network access services	655	707	(52)
Commercial and advertising costs	1,344	1,130	214
Professional and consulting services	110	104	6
Power, maintenance and outsourced services	1,159	1,115	44
Lease and rental costs	486	413	73
Other	2,937	2,237	700
Total acquisition of goods and services	**7,602**	**6,759**	**843**
% of Revenues	*62.8*	*54.5*	*8.3 pp*

Acquisition of goods and services recorded an increase of 843 million euros, mainly due to the greater commercial and advertising costs, use of third parties' assets (above all costs for software license rental) and the increase in other costs, which include costs due to external companies to set up network accesses as part of the delivery agreements in place with Group companies (such as FiberCop), facility and maintenance costs.

The item includes a non-recurring item of 30 million euros, for expenses related to agreements and the development of non-recurring projects.

Employee benefits expenses

(million euros)	2022	2021	Change
Ordinary employee expenses and costs	2,041	2,095	(54)
Restructuring expenses and allocations to employee and other provisions	537	358	179
Total employee benefits expenses	**2,578**	**2,453**	**125**

Employee benefits expenses increased by 125 million euros compared to 2021. The main factors that drove this change were:

- increase of 179 million euros in corporate restructuring expenses; at December 31, 2022, provisions were made for expenses totaling 537 million euros, mainly relating to outgoing managerial and non-managerial staff, envisaged in accordance with the application of Art. 4 of Italian Law no. 92 of June 28, 2012 and former Art. 41, subsection 5bis, Italian Legislative Decree no. 148/2015, as per agreements signed by TIM S.p.A. with the trade unions in 2022;
- a decrease of 54 million euros of ordinary employee expenses, mainly due to the savings consequent to the reduction in the average salaried workforce, amounting to a total average of -2,066 employees, of whom an average of -1,471 deriving from the application of the Expansion Contract by the Company.

The headcount at December 31, 2022 amounted to 35,524 employees (37,064 at December 31, 2021), a decrease of 1,540.

Other operating expenses

(million euros)	2022	2021	Change
Write-downs and expenses in connection with credit management	115	217	(102)
Provision charges	118	674	(556)
TLC operating fees and charges	43	41	2
Indirect duties and taxes	55	58	(3)
Penalties, settlement compensation and administrative fines	24	127	(103)
Subscription dues and fees, donations, scholarships and traineeships	10	10	—
Other	55	52	3
Total	**420**	**1,179**	**(759)**

Other operating expenses for 2022 dropped by 759 million euros and include a non-recurring item of 76 million euros, mainly for provisions made for disputes, transactions, regulatory sanctions and potential related liabilities. It includes, in particular, a provision of 41 million euros for onerous contracts relating to a multi-year agreement concluded in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022. In addition, “Write-downs and expenses in connection with credit management” shows a reduction of 102 million euros compared with 2021, which is the consequence of the pursuit of the program to optimize processes started in 2020, aimed at increasing the efficiency of end-to-end credit management, intervening on the whole process involving the customer. More specifically, reference is made to the acceptance, management and collection of debt to support the development of the commercial offers.

In 2021, the non-recurring items amounted to 735 million euros and mainly included provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic. Amongst the Provision charges, the amount included 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to certain contracts for the offer of multimedia content connected with the partnerships currently in place.

For more details, refer to the chapter on “Complex contracts” in this Report on Operations and the Note “Provisions for risks and charges” of the TIM Group Separate Financial Statements at December 31, 2022.

Depreciation, amortization and capital expenditures

2022 **depreciation and amortization** came to 2,759 million euros (2,996 million euros in 2021) and are as follows:

(million euros)	2022	2021	Change
Amortization of intangible assets with a finite useful life	1,030	1,112	(82)
Depreciation of tangible assets	1,270	1,432	(162)
Amortization of rights of use assets	459	452	7
Total	**2,759**	**2,996**	**(237)**

The main aspects are listed below:

- **amortization of intangible assets** amounted to 1,030 million euros, down 82 million euros compared to 2021. This performance is due for 85 million euros to lesser amortization with respect to licenses, mainly connected with the December 2021 expiry of the UMTS licenses (with an impact of 134 million euros of lesser amortization with respect to December 2021). This reduction is partly offset by 49 million euros in greater amortization following the January 2022 commissioning of rights to use the 2100 MHz band (with an impact of 23 million euros), the July 2022 commissioning of the rights to use the 694-790 MHz bandwidth (with an impact of 22 million euros) and the July 2022 purchase of rights for the operator OpNet - formerly Linkem, to use the 34-36 MHz bandwidth (with an impact of 4 million euros);

- **depreciation of tangible assets owned** came to 1,270 million euros and shows a reduction of 162 million euros on 2021, due for 86 million euros to the contribution of the secondary network in FiberCop in March 2021 and the consequent dynamics of investments;

- **amortization of rights of use assets** came to 459 million euros, rising by 7 million euros on 2021, mainly following the renegotiation of real estate lease contracts.

Capex totaled 1,744 million euros (2,294 million euros in 2021), with a reduction of 550 million euros. Details are as follows:

(million euros)	2022	2021	Change
Investments in intangible assets with a finite useful life	776	1,055	(279)
Investments in tangible assets	899	1,167	(268)
Investments in rights of use assets	69	72	(3)
Total	**1,744**	**2,294**	**(550)**

Investments in intangible assets recorded a reduction of 279 million euros, mainly determined by the coming into force of the extension through to December 31, 2029 of the rights to use the 2100 MHz bandwidth (240 million euros in investments in progress at September 2021). This reduction was partly offset by the acquisition of the 34-36-MHz OpNet bandwidth (65 million euros) and the extension of the WiMax licenses through to December 31, 2029 (5 million euros).

In particular, the licenses were acquired with an agreement with the OpNet (former Linkem) operator covering the reciprocal transfer of frequencies and enabled TIM to use an additional 20MHz nationally, reaching the maximum availability of 100MHz permitted in the frequency bandwidth 3.4-3.8 GHz usable by TIM, as 5G frequencies.

Investments in tangible assets and rights of use assets recorded an overall reduction of 271 million euros, of which 268 million euros are for investments in tangible assets, mainly relating to a decline in investments in the access network, underground and overhead copper network and subscribed connections (-121 million euros) following the March 2021 conferral to FiberCop S.p.A. Lesser investments are also recorded in commercial products for customers (-28 million euros), in data center and IT management hardware (-17 million euros), in store furnishings and fittings (-10 million euros) and lesser investments in stock, due to a trend of lesser consumption seen on the Mobile segment (-14 million euros).

Gains (losses) on disposals of non-current assets

This item amounted to a positive 24 million euros (negative for 43 million euros in 2021). Period capital gains came to 37 million euros and mainly referred to capital gains noted following the sale of WiMax frequencies under the scope of the specified agreement with the operator OpNet (formerly Linkem) (33 million euros) and due to the closure of property sale and lease contracts. Capital losses came to 13 million euros and stem from the growing focus on decommissioning projects and the optimization of the network assets. More specifically, the Nokia, Erricsson modernization projects and the Huawei technological swap resulted in losses from disposals for approximately 5 million euros, whilst the disposal of base transceiver stations and their tax-accounting realignment entailed losses on disposals totaling approximately 4 million euros. The closure of lease contracts gave rise to capital losses of around 1 million euros.

Impairment reversals (losses) on non-current assets

This item was not present in 2022 (it was negative 4,120 million euros in 2021).

In preparing the Financial Statements for 2022, the Company carried out an impairment test on the goodwill. The outcomes of that testing, carried out in accordance with the specific procedure adopted by the Group, confirmed the amounts of Goodwill allocated to the Group's domestic business. Further details are provided in the Note "Goodwill" to the Separate Financial Statements as at December 31, 2022 of TIM S.p.A.

EBIT

EBIT in 2022 amounted to a negative 649 million euros (negative for 4,522 million euros in 2021), with a negative EBIT margin of -5.4% (negative for -36.5% in 2021). EBIT in 2022 reflected the negative impact of non-recurring net charges totaling 620 million euros (5,254 million euros in 2021).

Organic EBIT, net of the non-recurring items, amounted to a negative 29 million euros (732 million euros in 2021), with an EBIT margin of 0.2% (5.9% in 2021).
Further details on non-recurring items are provided in the Note "Significant non-recurring events and transactions" of the Separate Financial Statements at December 31, 2022 of TIM S.p.A. in addition to the information given in the chapter on "Non-recurring events" of this report on operations.

Organic EBIT, net of the non-recurring items, was calculated as follows:

(million euros)	2022	2021	Changes	
			absolute	%
EBIT	(649)	(4,522)	3,873	
Non-recurring expenses (Income)	620	5,254	(4,634)	
ORGANIC EBIT - excluding Non-recurring items	(29)	732	(761)	

Income (expenses) from investments

This item, amounting to 408 million euros (834 million euros in 2021), is broken down as follows:

(million euros)	2022	2021	Change
Dividends	113	837	(724)
Other income and gains on disposals of investments	313	9	304
Other income from investments	—	10	(10)
Losses on disposals of investments	—	—	—
Impairment losses on financial assets	(18)	(7)	(11)
Sundry expenses from investments	—	(15)	15
Total	**408**	**834**	**(426)**

In particular, we report:

- dividends mainly related to the subsidiary Telecom Italia Finance (54 million euros) and the associate Daphne 3 (57 million euros). In 2021 dividends mainly related to the subsidiaries Telecom Italia Sparkle (400 million euros) and Telecom Italia Finance (436 million euros).
- net capital gains on sales of investments refer to the mentioned sale of 41% of the share capital of the holding Daphne 3 to a consortium of investors led by Ardian. In 2021, for 9 million euros, they referred to the sale of 37.5% of the investment in the company FiberCop to the KKR fund.
- impairment losses referred mainly to the impairment of investment in the subsidiary TIM Servizi Digitali. In 2021 impairment losses referred mainly to the impairment of investment in the subsidiary Telecom Italia Ventures.

Finance income (expenses), net

Finance income (expenses) showed a net expense of 993 million euros (negative for 908 million euros in 2021); the increase is due to the dynamic of interest rates that impacted the performance of the Mark-to-Market of derivatives (in any case this is a change in currency and accounting non-monetary items) and, to a lesser extent, the component relating to debt exposure.

The item consists of:

(million euros)	2022	2021	Change
Finance income	1,415	1,076	339
Finance expenses	(2,408)	(1,984)	(424)
Total net finance income (expenses)	**(993)**	**(908)**	**(85)**

Income tax expense

In 2022, tax expenses were recorded for 1,843 million euros (expenses for 3,718 million euros in 2021); the item mainly reflects the impact deriving from the exercise of the option to revoke the realignment of goodwill resolved by TIM's Board of Directors on November 9, 2022, as permitted by the government Budget Law for financial year 2022 and as detailed in the Provision of the Revenue Agency Manager, published on September 29, 2022.

More specifically - having acknowledged publication of such Measure governing the terms, conditions and operating procedures for revocation - the Company assessed economic-financial advantageousness and considered it a priority to strengthen the industrial investments to be made to support the various business areas, an alternative to the financial commitment connected with the payment of substitute tax on the realignment.

Therefore, as there was no longer any basis for entering Deferred tax assets, they have been written-off entirely for a net amount of 1,964 million euros as follows:

- expense of -2,656 million euros for the write-off of deferred tax assets of TIM S.p.A.:
  - in the TIM S.p.A. statements as at December 31, 2020, the amount of 6,569 million euros had been entered for deferred tax assets in respect of a tax recognition of higher values entered in the financial statements pursuant to Decree Law 104/2020, art. 110, subsections 8 and 8 bis, which enabled the deductibility over 18 years, starting 2021, of the tax amortization of the realigned value, in respect of substitute tax in the amount of 3% of the realigned value (692 million euros), to be paid in 3 annual installments of equal amount;
  - in the financial statements at December 31, 2021, a partial write-down had been entered for an amount of -3,913 million euros, connected with the extension to 50 years of the period of tax asset absorption introduced by Art. 160 of the 2022 Budget Law (Law 234/2021) and the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A.;
- income of 692 million euros for the reversal of substitute tax that had been allocated for the realignment; in detail, entry of a receivable of 231 million euros related to the first installment, paid on 6/30/2021 and

reversal of a payable of 461 million euros for the second and third installments, which will not be paid following revocation of the realignment. The first installment, as envisaged by the Measure, has been recovered financially, offsetting it against tax payments made using the "F24" return, which the Company filed in December 2022, following filing of the supplementary declaration formalizing revocation of the realignment.

Further details are provided in the Note "Income tax expense (current and deferred)" of the Separate Financial Statements at December 31, 2022 of TIM S.p.A.

Profit (loss) for the year

The profit (loss) for the year 2022 was negative in the amount of 3,077 million euros (negative in the amount of 8,314 million euros in 2021) and was negatively affected by non-recurring net charges of 2,281 million euros (8,761 million euros in 2021).

Further details on non-recurring items are provided in the Note "Non-recurring events and transactions" of the Separate Financial Statements at December 31, 2022 of TIM S.p.A..

Financial Position and Cash Flows Performance

Financial position structure

(million euros)	12/31/2022	12/31/2021	Change
Assets			
Non-current assets	43,974	49,623	*(5,649)*
Goodwill	*12,064*	*12,961*	*(897)*
Intangible assets with a finite useful life	*5,023*	*5,278*	*(255)*
Tangible assets	*6,837*	*7,223*	*(386)*
Rights of use assets	*3,188*	*3,320*	*(132)*
Other non-current assets	*16,401*	*17,477*	*(1,076)*
Deferred tax assets	*461*	*3,364*	*(2,903)*
Current assets	6,407	7,852	(1,445)
Inventories, trade and miscellaneous receivables and other current assets	*4,486*	*4,096*	*390*
Current income tax receivables	*34*	*43*	*(9)*
Current financial assets	*1,887*	*3,713*	*(1,826)*
Discontinued operations/Non-current assets held for sale	*—*	*—*	*—*
	50,381	**57,475**	(7,094)
Liabilities			
Equity	14,252	16,564	(2,312)
Non-current liabilities	23,402	27,090	(3,688)
Current liabilities	12,727	13,821	(1,094)
	50,381	**57,475**	(7,094)

Non-current assets

- **Goodwill:** this reduced by 897 million euros compared with December 31, 2021, for 898 million euros following the sale of the portion of goodwill attributed to the investment in Daphne 3 S.p.A as well as the value of such investment, as a result of the specific acquisition by the Ardian fund of the share held by TIM, equal to 41% of the holding company Daphne 3, which, in turn, currently holds a 30.2% share in Infrastrutture Wireless Italiane ("INWIT"). The acquisition is noted of the goodwill of Movenda for 1 million euros following the merger into TIM S.p.A. with effect from July 1, 2022;
- **Intangible assets with a finite useful life:** these fell by 255 million euros, from 5,278 million euros at the end of 2021 to 5,023 million euros at September 30, 2022, representing the balance of the following items:
  - capex (+776 million euros);
  - amortization charge for the year (-1,030 million euros);
  - disposals, reclassifications and other changes (-1 million euros).
- **Tangible assets:** decreased by 386 million euros, representing the sum of the following:
  - capex (+899 million euros);
  - depreciation charge for the year (-1,270 million euros);
  - disposals, reclassifications and other changes (-15 million euros).
- **Rights of use assets:** decreased by 132 million euros, representing the sum of the following:
  - investments and increases in lease contracts (+390 million euros);
  - amortization charge for the year (-459 million euros);
  - disposals, reclassifications and other changes (-63 million euros).
- **Deferred tax assets**: decreased by 2,903 million euros compared to December 31, 2021.

Equity

Equity amounted to 14,252 million euros, down by 2,312 million euros compared to December 31, 2021 (16,564 million euros). The changes in equity over 2022 and 2021 are detailed in the following table:

(million euros)	12/31/2022	12/31/2021
At the beginning of the year	**16,564**	**25,008**
Profit (loss) for the year	(3,077)	(8,314)
Dividends approved	—	(319)
Equity instruments and other changes	6	(72)
Movements in the reserve for financial assets measured at fair value through other comprehensive income and derivative hedging instruments	707	272
Movements in the reserve for remeasurements of employee defined benefit plans (IAS 19)	52	(11)
At the end of the year	**14,252**	**16,564**

Cash flows

Change in net financial debt

(million euros)	2022	2021	Change
EBITDA	2,086	2,637	(551)
Capital expenditures on an accrual basis	(1,744)	(2,294)	550
Change in net operating working capital:	(1,654)	(136)	(1,518)
Change in inventories	(28)	(21)	(7)
Change in trade receivables and other net receivables	(205)	(261)	56
Change in trade payables	344	666	(322)
Change in payables for mobile telephone licenses	(1,738)	(55)	(1,683)
Other changes in operating receivables/payables	(27)	(465)	438
Change in employee benefits	144	(83)	227
Change in operating provisions and Other changes	(329)	336	(665)
Net operating free cash flow	**(1,497)**	**460**	**(1,957)**
% of Revenues	*(12.4)*	*3.7*	*(16.1)*
Sale of investments and other disposals flow	1,283	1,812	(529)
- of which sale of 41% Daphne 3	*1,278*	—	
- of which sale of 37.5% FiberCop	—	*1,759*	
Share capital increases/reimbursements	—	—	—
Financial investments	(46)	(130)	84
Dividends flow	112	462	(350)
Increases in lease contracts	(321)	(253)	(68)
impact on debt for Noovle conferral	—	858	(858)
Impact on debt for FiberCop conferral	—	2,406	(2,406)
Finance expenses, income taxes and other net non-operating requirements flow	267	(228)	495
Reduction /(Increase) in net financial debt carrying amount	**(202)**	**5,387**	**(5,589)**

Equity Free Cash Flow

(million euros)	2022	2021	Change
Reduction /(Increase) in net financial debt carrying amount	**(202)**	**5,387**	**(5,589)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(895)*	*(216)*	*(679)*
Reduction/(Increase) in adjusted net financial debt	**(1,097)**	**5,171**	**(6,268)**
Impact for finance leases (new lease operations and/or renewals and/or extensions (-)/any terminations/early extinguishing of leases (+))	261	171	90
Payment of TLC licenses and for the use of frequencies	1,805	295	1,510
Financial impact of acquisitions and/or disposals of investments	(1,232)	(5,405)	4,173
Dividend payment and Change in Equity	1	317	(316)
Equity Free Cash Flow	**(262)**	**549**	**(811)**

The reduction in net operating free cash flow in 2022 as compared with 2021 (1,957 million euros) is attributed to the reduction recorded by the EBITDA (-551 million euros) and the change in working capital (-1,518 million euros) mainly consequent to the change in amounts due to pay the last installment of the 5G license (-1,738 million euros), partly offset by the change in employee benefits (227 million euros) and the lesser need for investments (550 million euros).

In addition to what has already been described with reference to EBITDA, the change in net financial debt was particularly impacted by the following:

Capex flow

Capex totaled 1,744 million euros (2,294 million euros in 2021), down 550 million euros, mainly determined by lesser investments in intangible assets (279 million euros), in tangible assets (268 million euros) and rights of use assets (3 million euros).

Sale of investments and other disposals flow

This item was positive for 1,283 million euros and mainly referred to the sale of 41% of Daphne 3, which holds a 30.2% share in Infrastrutture Wireless Italiane ("INWIT"), to a consortium of investors led by Ardian. In 2021, this was positive for 1,812 million euros and mainly referred to on the sale of 37.5% of FiberCop to the indirect subsidiary of KKR Global Infrastructure Investors III L.P.

Financial investments flow

This came to 46 million euros and mainly refers to the acquisition of the investment in the associate Italtel (10 million euros), in the associate Polo Strategico Nazionale (3 million euros) and the payment on investment account to subscribe the share capital increase in the favor of the subsidiaries Telecom Italia Ventures (11 million euros) and Tim Servizi Digitali (19 million euros), as well as in the associate Polo Strategico Nazionale (3 million euros). In 2021, this amounted to 130 million euros and referred primarily to investment account payments to cover subscriptions of new share capital issued by the subsidiaries Olivetti (10 million euros), Telecom Italia Ventures (33 million euros), FiberCop (63 million euros) and in the associate TIMFin (24 million euros).

Increases in lease contracts

This item amounted to 321 million euros (253 million euros in 2021). Increases in finance leasing contracts include the higher value of user rights entered following new lease contracts payables, increase of lease payments and renegotiations of existing contracts.

Share capital increases/reimbursements, including incidental costs

There were none in 2022 (none in 2021 either).

Finance expenses, income taxes and other net non-operating requirements flow

Finance expenses, income taxes and other net non-operating requirements flow mainly includes the payment of income taxes, net finance expenses, and the change in non-operating receivables and payables.

Sales of receivables to factoring companies

Sales of trade receivables to factoring companies completed during 2022 resulted in a positive effect on the net financial debt at December 31, 2022 amounting to 1,147 million euros (1,513 million euros at December 31, 2021).

Net financial debt

Net financial debt is composed as follows:

(million euros)	12/31/2022 (a)	12/31/2021 (b)	Change (a-b)
Non-current financial liabilities			
Bonds	10,118	12,506	(2,388)
Amounts due to banks, other financial payables and liabilities	8,661	9,371	(710)
Finance lease liabilities	2,600	2,743	(143)
	21,379	**24,620**	**(3,241)**
Current financial liabilities (1)			
Bonds	2,668	3,384	(716)
Amounts due to banks, other financial payables and liabilities	3,022	1,661	1,361
Finance lease liabilities	459	434	25
	6,149	**5,479**	**670**
Total Gross financial debt	**27,528**	**30,099**	**(2,571)**
Non-current financial assets			
Non-current financial receivables arising from lease contracts	(8)	(11)	3
Financial receivables and other non-current financial assets	(3,494)	(4,438)	944
	(3,502)	**(4,449)**	**947**
Current financial assets			
Securities other than investments	—	—	—
Current financial receivables arising from lease contracts	(45)	(39)	(6)
Financial receivables and other current financial assets	(467)	(116)	(351)
Cash and cash equivalents	(1,375)	(3,558)	2,183
	(1,887)	**(3,713)**	**1,826**
Total financial assets	**(5,389)**	**(8,162)**	**2,773**
Net financial debt carrying amount	**22,139**	**21,937**	**202**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	(430)	(1,325)	895
Adjusted Net Financial Debt	**21,709**	**20,612**	**1,097**
Breakdown as follows:			
Total adjusted gross financial debt	**26,769**	**27,753**	**(984)**
Total adjusted financial assets	**(5,060)**	**(7,141)**	**2,081**
(1) of which current portion of medium/long-term debt:			
Bonds	*2,668*	*3,384*	*(716)*
Amounts due to banks, other financial payables and liabilities	*1,537*	*1,045*	*492*
Finance lease liabilities	*435*	*432*	*3*

The non-current portion of gross financial debt amounted to 21,379 million euros (24,620 million euros at the end of 2021) and represented 78% of total gross financial debt.

In line with the Group's objectives in terms of debt composition and in accordance with the Guidelines adopted for the "Management and control of financial risk", TIM S.p.A., in securing both third-party and intercompany loans, uses IRS and CCIRS derivative financial instruments to hedge its liabilities.

Derivative financial instruments are designated as fair value hedges for managing exchange rate risk on financial instruments denominated in currencies other than euro and for managing interest rate risk on fixed-rate loans. Derivative financial instruments are designated as cash flow hedges when the objective is to fix the exchange rate and interest rate of future variable contractual flows.

Adjusted Net Financial Debt amounted to 21,709 million euros at December 31, 2022, **an increase of 1,097 million euros compared to December 31, 2021** (20,612 million euros). The positive impacts resulting from the sale of 41% of Daphne3 for 1,278 million euros, a holding company that holds the investment in INWIT, have been absorbed by the payment of telecommunications frequencies for a total of 1,805 million euros and by the trend of the operative-financial dynamics.
For a better understanding of the information, the table below shows the various ways by which the Net Financial Debt can be shown:

(million euros)	12/31/2022	12/31/2021	Change
Net financial debt carrying amount	**22,139**	**21,937**	**202**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(430)*	*(1,325)*	*895*
Adjusted Net Financial Debt	**21,709**	**20,612**	**1,097**
Leases	*(3,006)*	*(3,127)*	*121*
Adjusted Net Financial Debt - After Lease	**18,703**	**17,485**	**1,218**

Net financial debt carrying amount amounted to 22,139 million euros at December 31, 2022, an increase of 202 million euros compared to December 31, 2021 (21,937 million euros). Reversal of fair value measurement of derivatives and related financial liabilities/assets recorded an annual change of 895 million euros, the impact is attributable to the rise in Euro interest rates, the positive impact of which on the value of derivatives is only partly offset by the change in interest rates in American dollars. This valuation is adjusted in the Financial Debt carrying amount as it has no monetary effect.

Adjusted Net Financial Debt – After Lease (net of the impact of all leases), **a parameter adopted by main European peers**, was equal to 18,703 million euros at December 31, 2022, down by 1,218 million euros compared to December 31, 2021 (17,485 million euros).

Gross financial debt

Bonds

Bonds at December 31, 2022 totaled 12,786 million euros (15,890 million euros at December 31, 2021). Their nominal repayment amount was 12,499 million euros, a decrease of 3,039 million euros compared to December 31, 2021 (15,538 million euros).

The change in bonds during 2022 was as follows:

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A 2002-2022 reserved for subscription by employees	Euro	214	1/1/2022
Telecom Italia S.p.A. 1,250 million euros 5.25% [1]	Euro	884	2/10/2022
Telecom Italia S.p.A. 2,000 million euros 1.125% Convertible bond	Euro	2,000	3/26/2022

(1) Net of buy-backs totaling 366 million euros made by the company in 2015.

On January 20, 2023, TIM issued a 5-year Bond for an amount of 850 million euros, coupon 6.875%.

Revolving Credit Facility and Term Loan

The following table shows committed credit lines[*] available at December 31, 2022:

(billion euros)	12/31/2022		12/31/2021	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - May 2026	4.0	—	4.0	—
Total	**4.0**	**—**	**4.0**	**—**

(*) In accordance with the contract signed, the Banks have committed to make the funds available on demand (with at least 3 days' notice). As this is a "Committed" line, the banks have no mechanisms in place not to honor the request for funds made by the Company, without prejudice to the market standard early mandatory cancellation clauses (Natural contract expiry, Change in control, Borrower illegality, Events of default).

On July 6, 2022, TIM stipulated a new loan with a pool of leading international banks, which benefits from the "Italy Guarantee" (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020 as subsequently amended and supplemented) for an amount of 2 billion euros.

Maturities of financial liabilities

The average maturity of non-current financial liabilities (including the current portion of medium/long-term financial liabilities due within 12 months) was 6.04 years.

Details of the maturities of financial liabilities in terms of expected nominal repayment amounts, as contractually agreed, are provided in the Note "Non-current and current financial liabilities" of the Separate Financial Statements of TIM S.p.A. at December 31, 2022.

Financial assets and liquidity margin

Financial assets totaled 5,389 million euros (8,162 million euros at December 31, 2021), of which 2,974 million euros relating to financial receivables from Group companies.

Of that total, 1,887 million euros (3,713 million euros at December 31, 2021) was classified as current financial assets.

The available liquidity margin of TIM S.p.A. amounted to 5,375 million euros, equal to the sum of:

- "Cash and cash equivalents" and "Current securities other than investments" for a total of 1,375 million euros (3,558 million euros at December 31, 2021);
- Sustainability-linked Revolving Credit Facility amounting to 4,000 million euros, totally available.

This margin is amply sufficient to cover the financial liabilities due.

In particular:

Cash and cash equivalents amounted to (1,375) million euros (3,558 million euros at December 31, 2021). The different technical forms of investing available cash can be analyzed as follows:

- Maturities: investments have a maximum maturity of three months;
- Counterparty risk: investments are made with leading banking and financial institutions with high-credit-quality;
- Country risk: deposits have been made mainly in major European financial markets.

TABLES OF DETAIL – TIM S.p.A.

Separate Income Statements

(million euros)	2022 (a)	2021 (b)	Changes (a-b) absolute	 %
Revenues	**12,098**	**12,397**	**(299)**	**(2.4)**
Other income	245	322	(77)	(23.9)
Total operating revenues and other income	**12,343**	**12,719**	**(376)**	**(3.0)**
Acquisition of goods and services	(7,602)	(6,759)	(843)	(12.5)
Employee benefits expenses	(2,578)	(2,453)	(125)	(5.1)
Other operating expenses	(420)	(1,179)	759	64.4
Change in inventories	28	21	7	33.3
Internally generated assets	315	288	27	9.4
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**2,086**	**2,637**	**(551)**	**(20.9)**
Depreciation and amortization	(2,759)	(2,996)	237	7.9
Gains (losses) on disposals of non-current assets	24	(43)	67	—
Impairment reversals (losses) on non-current assets	—	(4,120)	4,120	—
Operating profit (loss) (EBIT)	**(649)**	**(4,522)**	**3,873**	**85.6**
Income (expenses) from investments	408	834	(426)	(51.1)
Finance income	1,415	1,076	339	31.5
Finance expenses	(2,408)	(1,984)	(424)	(21.4)
Profit (loss) before tax	**(1,234)**	**(4,596)**	**3,362**	**73.2**
Income tax expense	(1,843)	(3,718)	1,875	50.4
Profit (loss) for the year	**(3,077)**	**(8,314)**	**5,237**	**63.0**

Statements of Comprehensive Income

In accordance with IAS 1 (Presentation of Financial Statements), the following Statements of Comprehensive Income include the Profit (loss) for the year as shown in the Separate Income Statements and all non-owner changes in equity.

(million euros)		2022	2021
Profit (loss) for the year	**(a)**	**(3,077)**	**(8,314)**
Other components of the Statements of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(2)	7
Income tax effect		—	—
	(b)	**(2)**	**7**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		68	(14)
Income tax effect		(16)	3
	(c)	**52**	**(11)**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	**—**	**—**
Total other components that will not be reclassified subsequently to Separate Income Statements	**(e=b+c+d)**	**50**	**(4)**
Other components that will be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(17)	(5)
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		4	1
	(f)	**(13)**	**(4)**
Hedging instruments:			
Profit (loss) from fair value adjustments		1,019	538
Loss (profit) transferred to the Separate Income Statements		(69)	(185)
Income tax effect		(228)	(84)
	(g)	**722**	**269**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		—	—
	(h)	**—**	**—**
Total other components that will be reclassified subsequently to Separate Income Statements	**(i= f+g+h)**	**709**	**265**
Total other components of the Statements of Comprehensive Income	**(k= e+i)**	**759**	**261**
Total comprehensive income (loss) for the year	**(a+k)**	**(2,318)**	**(8,053)**

Statements of Financial Position

(million euros)		12/31/2022 (a)	12/31/2021 (b)	Changes (a-b)
Assets				
Non-current assets				
Intangible assets				
Goodwill		12,064	12,961	(897)
Intangible assets with a finite useful life		5,023	5,278	(255)
		17,087	**18,239**	**(1,152)**
Tangible assets				
Property, plant and equipment owned		**6,837**	**7,223**	**(386)**
Rights of use assets		**3,188**	**3,320**	**(132)**
Other non-current assets				
Investments		11,021	11,054	(33)
Non-current financial receivables arising from lease contracts		8	11	(3)
Other non-current financial assets		3,494	4,438	(944)
Miscellaneous receivables and other non-current assets		1,878	1,974	(96)
Deferred tax assets		461	3,364	(2,903)
		16,862	**20,841**	**(3,979)**
Total Non-current assets	**(a)**	**43,974**	**49,623**	**(5,649)**
Current assets				
Inventories		193	165	28
Trade and miscellaneous receivables and other current assets		4,293	3,931	362
Current income tax receivables		34	43	(9)
Current financial assets				
Current financial receivables arising from lease contracts		45	39	6
Securities other than investments, other financial receivables and other current financial assets		467	116	351
Cash and cash equivalents		1,375	3,558	(2,183)
		1,887	**3,713**	**(1,826)**
Total Current assets	**(b)**	**6,407**	**7,852**	**(1,445)**
Total Assets	**(a+b)**	**50,381**	**57,475**	**(7,094)**

(million euros)		12/31/2022 (a)	12/31/2021 (b)	Changes (a-b)
Equity and liabilities				
Equity				
Share capital issued		11,677	11,677	—
less: Treasury shares		(63)	(63)	—
Share capital		**11,614**	**11,614**	**—**
Additional paid-in capital		**2,133**	**2,133**	**—**
Other reserves and retained earnings (accumulated losses), including profit (loss) for the year		**505**	**2,817**	**(2,312)**
Total Equity	**(c)**	**14,252**	**16,564**	**(2,312)**
Non-current liabilities				
Non-current financial liabilities for financing contracts and others		18,779	21,877	(3,098)
Non-current financial liabilities for lease contracts		2,600	2,743	(143)
Employee benefits		631	641	(10)
Deferred tax liabilities		—	—	—
Provisions		517	633	(116)
Miscellaneous payables and other non-current liabilities		875	1,196	(321)
Total Non-current liabilities	**(d)**	**23,402**	**27,090**	**(3,688)**
Current liabilities				
Current financial liabilities for financing contracts and others		5,690	5,045	645
Current financial liabilities for lease contracts		459	434	25
Trade and miscellaneous payables and other current liabilities		6,578	8,111	(1,533)
Income tax payables		—	231	(231)
Total Current Liabilities	**(e)**	**12,727**	**13,821**	**(1,094)**
Total Liabilities	**(f=d+e)**	**36,129**	**40,911**	**(4,782)**
Total Equity and Liabilities	**(c+f)**	**50,381**	**57,475**	**(7,094)**

Statements of Cash Flows

(million euros)		2022	2021
Cash flows from operating activities:			
Profit (loss) for the year		(3,077)	(8,314)
Adjustments for:			
Depreciation and amortization		2,759	2,996
Impairment losses (reversals) on non-current assets (including investments)		21	4,125
Net change in deferred tax assets and liabilities		2,662	3,843
Losses (gains) realized on disposals of non-current assets (including investments)		(337)	35
Change in employee benefits		144	(83)
Change in inventories		(28)	(21)
Change in trade receivables and other net receivables		(204)	(261)
Change in trade payables		444	518
Net change in income tax receivables/payables		(452)	(236)
Net change in miscellaneous receivables/payables and other assets/liabilities		(589)	(227)
Cash flows from (used in) operating activities	**(a)**	**1,343**	**2,375**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(3,582)	(2,201)
Contributions for plants received		3	3
Change in cash arising from corporate actions		—	4
Acquisitions/disposals of other investments		(46)	(130)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		140	1,153
Proceeds received from the sale of investments in subsidiaries		—	—
Proceeds from sale/repayments of intangible, tangible, rights of use assets and other non-current assets		1,283	53
Cash flows from (used in) investing activities	**(b)**	**(2,202)**	**(1,118)**
Cash flows from financing activities:			
Change in current financial liabilities and other		48	(182)
Proceeds from non-current financial liabilities (including current portion)		2,000	2,100
Repayments of non-current financial liabilities (including current portion)		(4,193)	(2,600)
Changes in hedging and non-hedging derivatives		—	103
Share capital proceeds/reimbursements		—	—
Dividends paid		(1)	(318)
Changes in ownership interests in consolidated subsidiaries		—	1,759
Cash flows from (used in) financing activities	**(c)**	**(2,146)**	**862**
Aggregate cash flows	**(d=a+b+c)**	**(3,005)**	**2,119**
Net cash and cash equivalents at beginning of the year	**(e)**	**3,364**	**1,245**
Net cash and cash equivalents at end of the year	**(f=d+e)**	**359**	**3,364**

Purchase of intangible, tangible and rights of use assets

(million euros)	2022	2021
Purchase of intangible assets	(776)	(1,055)
Purchase of tangible assets	(899)	(1,167)
Purchase of rights of use assets	(390)	(325)
Total purchases of intangible, tangible and rights of use assets on an accrual basis	**(2,065)**	**(2,547)**
Change in payables arising from purchases of intangible, tangible and rights of use assets	(1,517)	346
Total purchases of intangible, tangible and rights of use assets on a cash basis	**(3,582)**	**(2,201)**

Additional Cash Flow Information

(million euros)	2022	2021
Income taxes (paid) received	233	(206)
Interest expense paid	(1,384)	(1,296)
Interest income received	(556)	504
Dividends received	113	780

Analysis of Net Cash and Cash Equivalents

(million euros)	2022	2021
Net cash and cash equivalents at beginning of the year:		
Cash and cash equivalents	3,558	1,765
Bank overdrafts repayable on demand	(194)	(520)
	3,364	**1,245**
Net cash and cash equivalents at end of the year:		
Cash and cash equivalents	1,375	3,558
Bank overdrafts repayable on demand	(1,016)	(194)
	359	**3,364**

The additional disclosures required by IAS 7 are provided in the Note “Net Financial Debt” in the Separate Financial Statements of TIM S.p.A. as at December 31, 2022.

AFTER LEASE INDICATORS - TIM S.p.A.

The Company, in addition to the conventional financial performance measures established by the IFRS, uses certain alternative performance measures in order to present a better understanding of the trend of operations and financial condition. In particular, following the adoption of IFRS 16, TIM presents the following additional alternative performance measures:

EBITDA ADJUSTED AFTER LEASE TIM S.p.A.

(million euros)	2022	2021	Changes	
			absolute	%
ORGANIC EBITDA - excluding Non-recurring items	2,706	**3,771**	**(1,065)**	**(28.2)**
Lease payments	(495)	(503)	8	(1.6)
EBITDA adjusted After Lease (EBITDA-AL)	2,211	**3,268**	**(1,057)**	**(32.3)**

ADJUSTED NET FINANCIAL DEBT AFTER LEASE TIM S.p.A.

(million euros)	12/31/2022	12/31/2021	Change
Adjusted Net Financial Debt	21,709	**20,612**	**1,097**
Leases	(3,006)	(3,127)	121
Adjusted Net Financial Debt - After Lease	18,703	**17,485**	**1,218**

EQUITY FREE CASH FLOW AFTER LEASE TIM S.p.A.

(million euros)	2022	2021	Change
EQUITY FREE CASH FLOW	(262)	**549**	**(811)**
Change in lease contracts (principal share)	(381)	(388)	7
EQUITY FREE CASH FLOW AFTER LEASE	(643)	**161**	**(804)**

RECONCILIATION OF CONSOLIDATED EQUITY

(million euros)	Profit (loss) for the year		Equity at 12/31	
	2022	2021	2022	2021
Equity and Profit (Loss) for the year of TIM S.p.A.	**(3,077)**	**(8,314)**	**14,252**	**16,564**
Equity and Profit (Loss) for the year of consolidated companies, net of the share attributable to Non-controlling interest	690	721	18,876	18,842
Consolidation adjustments on the Equity and Profit (Loss) for the year attributable to Owners of the Parent:				
elimination of carrying amount of consolidated investments	—	—	(33,113)	(31,760)
impairment losses of consolidated companies included in the results of parent companies	32	3	9,564	9,544
elimination of goodwill recognized in Parent financial statements	—	—	(12,064)	(12,961)
recognition of positive differences arising from purchase of investments, of which:				
- goodwill	—	—	16,941	16,562
- allocation of the purchase price to the net assets acquired and liabilities assumed in business combinations	(17)	(1)	379	(1)
measurement of hedging derivatives at Group level	16	(28)	231	766
effect of elimination of carrying amount of Parent's shares held by TIM (formerly Telecom Italia Finance)	—	—	56	(78)
intra-group dividends	(495)	(1,096)	(107)	(44)
change in share of losses (profits) from sale of investments	(141)	—	(22)	(23)
other adjustments	67	63	68	3
Equity and Profit (Loss) for the year attributable to Owners of the Parent	**(2,925)**	**(8,652)**	**15,061**	**17,414**
Equity and Profit (Loss) for the year attributable to Non-controlling interest	271	252	3,664	4,625
Equity and Profit (Loss) for the year in the Consolidated Financial Statements	**(2,654)**	**(8,400)**	**18,725**	**22,039**

CORPORATE BOARDS

Board of Directors

The Ordinary Shareholders' meeting of TIM, held on March 31, 2021, appointed a Board of 15 Directors and for a three-year term of office (up to the approval of the financial statements at December 31, 2023). At its meeting on April 1, 2021, the Board of Directors confirmed Salvatore Rossi as its Chairman, and Luigi Gubitosi as Chief Executive Officer of the Company.

During the meeting held on November 26, 2021, Luigi Gubitosi returned the delegations of Chief Executive Officer and the appointment of General Manager. The Board of Directors thus appointed Pietro Labriola as General Manager, attributing him all the powers necessary for performing actions pertinent to the activity of the company. During the same meeting, the Board of Directors appointed Paola Sapienza as Lead Independent Director.

Thereafter, on December 17, 2021, Luigi Gubitosi stood down from TIM's Board of Directors, which on January 21, 2022 then coopted Pietro Labriola, who maintained the office of General Manager and appointed him Chief Executive Officer.

The Shareholders' Meeting of April 7, 2022 confirmed Pietro Labriola as Company Director (until approval of the financial statements as at December 31, 2023) and the Board of Directors meeting held on that same date appointed him as CEO; Pietro Labriola also maintained the powers and attributions as General Manager of the Company. As CEO and General Manager, Pietro Labriola is classified as a (non-independent) Executive Director.

The current power structure of the Company provides the assignment:

- to the Chairman, of the powers contemplated by law, the bylaws and corporate governance arrangements;
- to the Chief Executive Officer, of all powers necessary to perform acts pertinent to the Company's business, except for the powers reserved to the Board of Directors.

Respectively on September 29 and November 16, 2022, directors Luca de Meo and Frank Cadoret stood down. On November 30 and December 15, 2022, Giulio Gallazzi and Massimo Sarmi were coopted to replace them until the next shareholders' meeting.

At December 31, 2022, the Board of Directors of TIM had the following members:

Chairman	Salvatore Rossi
Chief Executive Officer and General Manager	Pietro Labriola
Directors	Paolo Boccardelli (independent)
	Paola Bonomo (independent)
	Paola Camagni (independent)
	Maurizio Carli (independent)
	Cristiana Falcone (independent)
	Federico Ferro Luzzi (independent)
	Giulio Gallazzi (independent)
	Giovanni Gorno Tempini
	Marella Moretti (independent)
	Ilaria Romagnoli (independent)
	Arnaud Roy de Puyfontaine
	Paola Sapienza (Lead Independent Director)
	Massimo Sarmi
Secretary to the Board	Agostino Nuzzolo

On January 16, 2023, Arnaud Roy de Puyfontaine tendered his resignation from the office of Board director.

Today, the composition of the Company's Board of Directors is therefore:

Chairman	Salvatore Rossi
Chief Executive Officer and General Manager	Pietro Labriola
Directors	Paolo Boccardelli (independent)
	Paola Bonomo (independent)
	Paola Camagni (independent)
	Maurizio Carli (independent)
	Cristiana Falcone (independent)
	Federico Ferro Luzzi (independent)
	Giulio Gallazzi (independent)
	Giovanni Gorno Tempini
	Marella Moretti (independent)
	Ilaria Romagnoli (independent)
	Paola Sapienza (Lead Independent Director)
	Massimo Sarmi
Secretary to the Board	Agostino Nuzzolo

The following board committees were in place at December 31, 2022:

- **Control and Risk Committee**: composed of the Directors: Federico Ferro Luzzi (Chairman), Paolo Boccardelli, Paola Bonomo, Marella Moretti and Ilaria Romagnoli;
- **Nomination and Remuneration Committee**: composed of board members: Paola Bonomo (Chairman), Paola Camagni, Maurizio Carli and Paola Sapienza (on March 29, 2022 Luca de Meo stood down as Committee member and has not been replaced);
- **Related Parties Committee**: composed of the Directors: Paolo Boccardelli (Chairman), Maurizio Carli, Cristiana Falcone, Marella Moretti and Ilaria Romagnoli;
- **Sustainability Committee**: made up of the Chairman of the Board of Directors, Salvatore Rossi and Directors Paola Camagni, Cristiana Falcone, Federico Ferro Luzzi and Paola Sapienza.

Board of Statutory Auditors

The Ordinary Shareholders' Meeting of March 31, 2021 appointed the Company's Board of Statutory Auditors for a term of office that will end with the approval of the 2023 financial statements.

The Board of Statutory Auditors of the Company is now composed as follows:

Chairman	Francesco Fallacara
Standing Auditors	Angelo Rocco Bonissoni
	Francesca di Donato
	Anna Doro
	Massimo Gambini
Alternate Auditors	Ilaria Antonella Belluco
	Laura Fiordelisi
	Franco Maurizio Lagro
	Paolo Prandi

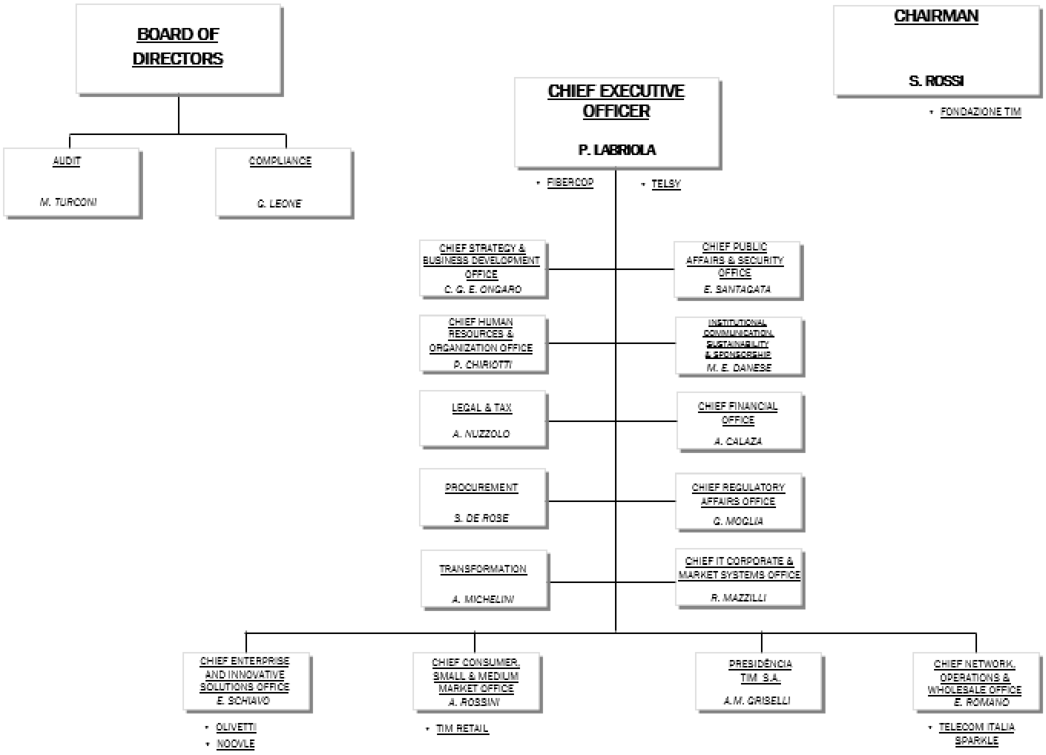
Independent Auditor

The engagement for the independent auditing of the financial statements of TIM S.p.A. for the nine-year period 2019-2027 was awarded to EY S.p.A. by the shareholders' meeting of March 29, 2019.

Executive responsible for preparing the corporate accounting documents

At the meeting of February 14, 2022, the Board of Directors appointed Adrian Calaza Noia (Head of the Group Chief Financial Office) as the manager responsible for preparing the financial reports of TIM S.p.A. starting from the approval of the Company's draft 2021 financial statements.

MACRO-ORGANIZATION CHART



LA FORZA DELLE CONNESSIONI

TIM Group Consolidated Financial Statements

CONTENTS

TIM GROUP CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Assets

(million euros)		Notes	12/31/2022	of which with related parties	12/31/2021	of which with related parties
Non-current assets						
Intangible assets						
Goodwill		5)	19,111	—	18,568	—
Intangible assets with a finite useful life		6)	7,656	—	7,147	—
			26,767	—	**25,715**	—
Tangible assets		7)				
Property, plant and equipment owned			**14,100**	—	**13,311**	—
Rights of use assets		8)	**5,488**	*38*	**4,847**	*301*
Other non-current assets						
Investments in associates and joint ventures accounted for using the equity method		9)	539	—	2,979	—
Other investments		9)	116	—	156	—
Non-current financial receivables arising from lease contracts		10)	49	*1*	45	*1*
Other non-current financial assets		10)	1,602	—	2,285	—
Miscellaneous receivables and other non-current assets		11)	2,365	*1*	2,266	—
Deferred tax assets		12)	769	—	3,513	—
			5,440	—	**11,244**	—
Total Non-current assets	**(a)**		**51,795**	—	**55,117**	—
Current assets						
Inventories		13)	322	—	282	—
Trade and miscellaneous receivables and other current assets		14)	4,539	*81*	4,358	*80*
Current income tax receivables		12)	147	—	79	—
Current financial assets		10)				
Current financial receivables arising from lease contracts			*69*	*11*	*56*	—
Securities other than investments, other financial receivables and other current financial assets			*1,600*	—	*2,391*	—
Cash and cash equivalents			*3,555*	—	*6,904*	—
			5,224	—	9,351	—
Current assets sub-total			**10,232**	—	**14,070**	—
Discontinued operations /Non-current assets held for sale						
of a financial nature			—	—	—	—
of a non-financial nature			—	—	—	—
			—	—	**—**	—
Total Current assets	**(b)**		**10,232**	—	**14,070**	—
Total Assets	**(b+a)**		**62,027**	—	**69,187**	—

Equity and liabilities

(million euros)		Notes	12/31/2022	of which with related parties	12/31/2021	of which with related parties
Equity		15)				
Share capital issued			11,677	—	11,677	—
less: Treasury shares			(63)	—	(63)	—
Share capital			11,614	—	11,614	—
Additional paid-in capital			2,133	—	2,133	—
Other reserves and retained earnings (accumulated losses), including profit (loss) for the year			1,314	—	3,667	—
Equity attributable to owners of the Parent			15,061	—	17,414	—
Non-controlling interests			3,664	—	4,625	—
Total Equity			18,725	—	22,039	—
Non-current liabilities						
Non-current financial liabilities for financing contracts and others		16)	21,739	—	23,437	—
Non-current financial liabilities for lease contracts		16)	4,597	*10*	4,064	*269*
Employee benefits		21)	684	—	699	—
Deferred tax liabilities		12)	84	—	245	—
Provisions		22)	910	—	926	—
Miscellaneous payables and other non-current liabilities		23)	1,146	*21*	1,413	*27*
Total Non-current liabilities	(d)		29,160		30,784	
Current liabilities						
Current financial liabilities for financing contracts and others		16)	5,039	—	5,945	*1*
Current financial liabilities for lease contracts		16)	870	*13*	651	*74*
Trade and miscellaneous payables and other current liabilities		24)	8,199	*149*	9,473	*265*
Income tax payables		12)	34	—	295	—
Current liabilities sub-total			14,142		16,364	
Liabilities directly associated with Discontinued operations/Non-current assets held for sale						
of a financial nature			—	—	—	—
of a non-financial nature			—	—	—	—
			—	—	—	—
Total Current Liabilities	(e)		14,142	—	16,364	—
Total Liabilities	(f=d+e)		43,302	—	47,148	—
Total Equity and Liabilities	(c+f)		62,027	—	69,187	—

SEPARATE CONSOLIDATED INCOME STATEMENT

(million euros)	Notes	Year 2022	of which with related parties	Year 2021	of which with related parties
Revenues	26)	**15,788**	*171*	**15,316**	*62*
Other income	27)	213	*3*	272	*12*
Total operating revenues and other income		**16,001**		**15,588**	
Acquisition of goods and services	28)	(7,239)	*(491)*	(6,550)	*(497)*
Employee benefits expenses	29)	(3,180)	*(100)*	(2,941)	*(108)*
Other operating expenses	30)	(816)	—	(1,502)	(3)
Change in inventories		22	—	10	—
Internally generated assets	31)	559	—	475	—
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)		**5,347**		**5,080**	
of which: impact of non-recurring items	42)	*(682)*		*(1,143)*	
Depreciation and amortization	32)	(4,777)	*(33)*	(4,490)	*(50)*
Gains (losses) on disposals of non-current assets	33)	36	—	*1*	—
Impairment reversals (losses) on non-current assets	34)	—	—	(4,120)	—
Operating profit (loss) (EBIT)		**606**		**(3,529)**	
of which: impact of non-recurring items	42)	*(682)*		*(5,263)*	
Share of losses (profits) of associates and joint ventures accounted for using the equity method	9)	23	—	38	—
Other income (expenses) from investments	35)	206	—	126	—
Finance income	36)	1,115	—	1,124	*1*
Finance expenses	36)	(2,538)	*(12)*	(2,274)	*(18)*
Profit (loss) before tax from continuing operations		**(588)**		**(4,515)**	
of which: impact of non-recurring items	42)	*(490)*		*(5,144)*	
Income tax expense		(2,066)	—	(3,885)	—
Profit (loss) from continuing operations		**(2,654)**		**(8,400)**	
Profit (loss) from Discontinued operations/Non-current assets held for sale		**—**		**—**	
Profit (Loss) for the year	37)	**(2,654)**		**(8,400)**	
of which: impact of non-recurring items	42)	*(2,437)*		*(8,653)*	
Attributable to:					
Owners of the Parent		**(2,925)**		**(8,652)**	
Non-controlling interests		271		252	

(euros)		Year 2022	Year 2021
Earnings per share:	38)		
Basic and Diluted Earnings Per Share (EPS)			
Ordinary Share		(0.14)	(0.40)
Savings Share		(0.14)	(0.40)
of which:			
from Continuing operations attributable to Owners of the Parent			
Ordinary Share		(0.14)	(0.40)
Savings Share		(0.14)	(0.40)

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Note 15

(million euros)		Year 2022	Year 2021
Profit (Loss) for the year	**(a)**	**(2,654)**	**(8,400)**
Other components of the Consolidated Statement of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(2)	7
Income tax effect		—	—
	(b)	**(2)**	**7**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		77	(8)
Income tax effect		(17)	(3)
	(c)	**60**	**(11)**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	—	—
Total other components that will not be reclassified subsequently to Separate Consolidated Income Statement	**(e=b+c+d)**	**58**	**(4)**
Other components that will be reclassified subsequently to Separate Consolidated Income Statement			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(130)	28
Loss (profit) transferred to Separate Consolidated Income Statement		21	(6)
Income tax effect		4	—
	(f)	**(105)**	**22**
Hedging instruments:			
Profit (loss) from fair value adjustments		488	658
Loss (profit) transferred to Separate Consolidated Income Statement		(235)	(365)
Income tax effect		(61)	(71)
	(g)	**192**	**222**
Exchange differences on translating foreign operations:			
Profit (loss) on translating foreign operations		597	50
Loss (profit) on translating foreign operations transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(h)	**597**	**50**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to Separate Consolidated Income Statement		—	—
Income tax effect		—	—
	(i)	—	**—**
Total other components that will be reclassified subsequently to Separate Consolidated Income Statement	**(k=f+g+h+i)**	**684**	**294**
Total other components of the Consolidated Statement of Comprehensive Income	**(m=e+k)**	**742**	**290**
Total comprehensive income (loss) for the year	**(a+m)**	**(1,912)**	**(8,110)**
Attributable to:			
Owners of the Parent		**(2,365)**	**(8,374)**
Non-controlling interests		453	264

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Changes from January 1, 2021 to December 31, 2021

	Equity attributable to owners of the Parent										
(million euros)	Share capital	Additional paid-in capital	Reserve for financial assets measured at fair value through other comprehensive income	Reserve for hedging instruments	Reserve for exchange differences on translating foreign operations	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total**	**Non-controlling interests**	**Total Equity**
Balance at December 31, 2020	**11,588**	**2,133**	**20**	**(350)**	**(2,538)**	**(119)**	**—**	**15,481**	**26,215**	**2,625**	**28,840**
Changes in equity during the year:											
Dividends approved	—	—	—	—	—	—	—	(318)	**(318)**	(55)	**(373)**
Total comprehensive income (loss) for the year	—	—	29	222	38	(11)	—	(8,652)	**(8,374)**	264	**(8,110)**
Issue of equity instruments	26	—	—	—	—	—	—	7	**33**	—	**33**
FiberCop - capital increase	—	—	—	—	—	—	—	(98)	**(98)**	1,848	**1,750**
Daphne 3 - distribution of additional paid-in capital	—	—	—	—	—	—	—	—	**—**	(42)	**(42)**
Other changes	—	—	—	—	—	—	—	(44)	**(44)**	(15)	**(59)**
Balance at December 31, 2021	**11,614**	**2,133**	**49**	**(128)**	**(2,500)**	**(130)**	**—**	**6,376**	**17,414**	**4,625**	**22,039**

Changes from January 1, 2022 to December 31, 2022 Note 15

	Equity attributable to owners of the Parent										
(million euros)	Share capital	Additional paid-in capital	Reserve for financial assets measured at fair value through other comprehensive income	Reserve for hedging instruments	Reserve for exchange differences on translating foreign operations	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total**	**Non-controlling interests**	**Total Equity**
Balance at December 31, 2021	**11,614**	**2,133**	**49**	**(128)**	**(2,500)**	**(130)**	**—**	**6,376**	**17,414**	**4,625**	**22,039**
Changes in equity during the year:											
Dividends approved	—	—	—	—	—	—	—	—	**—**	(86)	**(86)**
Total comprehensive income (loss) for the year	—	—	(107)	193	415	59	—	(2,925)	**(2,365)**	453	**(1,912)**
Equity instruments	—	—	—	—	—	—	—	6	**6**	—	**6**
Daphne 3 - deconsolidation	—	—	—	—	—	—	—	—	**—**	(1,332)	**(1,332)**
Other changes	—	—	—	—	—	—	—	6	**6**	4	**10**
Balance at December 31, 2022	**11,614**	**2,133**	**(58)**	**65**	**(2,085)**	**(71)**	**—**	**3,463**	**15,061**	**3,664**	**18,725**

CONSOLIDATED STATEMENTS OF CASH FLOWS

(million euros)	Notes	Year 2022	Year 2021
Cash flows from operating activities:			
Profit (loss) from continuing operations		(2,654)	(8,400)
Adjustments for:			
Depreciation and amortization		4,777	4,490
Impairment losses (reversals) on non-current assets (including investments)		9	4,118
Net change in deferred tax assets and liabilities		2,645	3,894
Losses (gains) realized on disposals of non-current assets (including investments)		(242)	(120)
Share of losses (profits) of associates and joint ventures accounted for using the equity method		(23)	(38)
Change in employee benefits		156	(83)
Change in inventories		(35)	(39)
Change in trade receivables and other net receivables		(81)	257
Change in trade payables		484	337
Net change in income tax receivables/payables		(478)	(313)
Net change in miscellaneous receivables/payables and other assets/liabilities		337	233
Cash flows from (used in) operating activities	**(a)**	**4,895**	**4,336**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(6,305)	(4,013)
Capital grants received		3	3
Acquisition of control of companies or other businesses, net of cash acquired		(1,316)	—
Acquisitions/disposals of other investments		(26)	(100)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		969	(1,183)
Proceeds from sale that result in a loss of control of subsidiaries or other businesses, net of cash disposed of		1,278	172
Proceeds from sale/repayments of intangible, tangible and other non-current assets		62	4
Cash flows from (used in) investing activities	**(b)**	**(5,335)**	**(5,117)**
Cash flows from financing activities:			
Change in current financial liabilities and other		(436)	704
Proceeds from non-current financial liabilities (including current portion)		2,288	4,082
Repayments of non-current financial liabilities (including current portion)		(4,615)	(3,072)
Change in hedging and non-hedging derivatives		(36)	103
Share capital proceeds/reimbursements (including subsidiaries)		2	(42)
Dividends paid(*)		(68)	(368)
Changes in ownership interests in consolidated subsidiaries		(4)	1,757
Cash flows from (used in) financing activities	**(c)**	**(2,869)**	**3,164**
Cash flows from (used in) Discontinued operations/Non-current assets held for sale	**(d)**	**—**	**—**
Aggregate cash flows	**(e=a+b+c+d**	**(3,309)**	**2,383**
Net cash and cash equivalents at beginning of the year	**(f)**	**6,904**	**4,508**
Net foreign exchange differences on net cash and cash equivalents	**(g)**	(40)	13
Net cash and cash equivalents at end of the year	**(h=e+f+g)**	**3,555**	**6,904**
(*) of which from related parties		—	51

Purchase of intangible, tangible and rights of use assets

(million euros)	Notes	Year 2022	Year 2021
Purchase of intangible assets	6)	(1,128)	(1,886)
Purchase of tangible assets	7)	(2,828)	(2,665)
Purchase of rights of use assets	8)	(953)	(746)
Total purchase of intangible, tangible and rights of use assets on an accrual basis(*)		(4,909)	(5,297)
Change in payables arising from purchase of intangible, tangible and rights of use assets		(1,396)	1,284
Total purchases of intangible, tangible and rights of use assets on a cash basis		(6,305)	(4,013)
(*) of which from related parties		71	23

Additional Cash Flow information

(million euros)	Year 2022	Year 2021
Income taxes (paid) received	164	(242)
Interest expense paid	(1,668)	(1,440)
Interest income received	562	437
Dividends received	155	90

Analysis of Net Cash and Cash Equivalents

(million euros)	Year 2022	Year 2021
Net cash and cash equivalents at beginning of the year:		
Cash and cash equivalents - from continuing operations	6,904	4,829
Bank overdrafts repayable on demand – from continuing operations	—	(321)
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	—
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	6,904	**4,508**
Net cash and cash equivalents at end of the year:		
Cash and cash equivalents - from continuing operations	3,555	6,904
Bank overdrafts repayable on demand – from continuing operations	—	—
Cash and cash equivalents - from Discontinued operations/Non-current assets held for sale	—	—
Bank overdrafts repayable on demand – from Discontinued operations/Non-current assets held for sale	—	—
	3,555	**6,904**

The additional disclosures required by IAS 7 are provided in the Note “Net financial debt” to these consolidated financial statements.

NOTE 1

FORM, CONTENT AND OTHER GENERAL INFORMATION

Form and content

Telecom Italia S.p.A. (the "**Parent Company**"), also known in short as "TIM S.p.A.", and its subsidiaries form the **"TIM Group" (the "Group")**.
TIM is a joint-stock company (S.p.A.) organized under the laws of the Republic of Italy.

The registered offices of the Parent, TIM, are located in Milan, Italy at Via Gaetano Negri 1.

The duration of TIM S.p.A., as stated in the company's bylaws, extends until December 31, 2100.

The TIM Group operates mainly in Europe, the Mediterranean Basin and South America.

The Group is engaged principally in the communications sector and, particularly, the fixed and mobile national and international telecommunications sector.

The TIM Group's Consolidated Financial Statements at December 31, 2022, have been prepared on a going concern basis (further details are provided in the Note "Accounting Policies") and in accordance with the recognition and measurement criteria of the International Financial Reporting Standards issued by the International Accounting Standards Board and endorsed by the European Union (designated as "**IFRS**"), as well as laws and regulations in force in Italy.

In 2022, the Group adopted accounting policies consistent with those of the previous year, except for the changes to the accounting standards issued by the IASB and in force as of January 1, 2022. See the Note "Accounting policies" for more details.

The consolidated financial statements have been prepared under the historical cost convention, except for financial assets measured at fair value through other comprehensive income, financial assets measured at fair value through profit and loss, and derivative financial instruments, which have been measured at fair value. The carrying amounts of hedged assets and liabilities have been adjusted to reflect fair value changes for hedged risks (fair value hedge).

In accordance with IAS 1 (Presentation of Financial Statements) comparative information included in the consolidated financial statements refers, unless otherwise indicated, to the previous year.

The TIM Group consolidated financial statements as at December 31, 2022 are expressed in euro (rounded to the nearest million unless otherwise indicated).

The publication of the consolidated financial statements for the year ended December 31, 2022 of the TIM Group was approved by resolution of the Board of Directors on March 15, 2023.

Financial statement formats

The financial statement formats adopted are consistent with those indicated in IAS 1. In particular:

- the **Consolidated statements of financial position** have been prepared by classifying assets and liabilities according to the "current and non-current" criterion;
- the **Separate Consolidated Income Statement** has been prepared by classifying operating costs by nature of expense as this form of presentation is considered more appropriate and representative of the specific business of the Group, conforms to internal reporting, and is in line with the TIM Group's industrial sector.
  In addition to EBIT or Operating profit (loss), the separate consolidated income statements include the alternative performance measure of EBITDA or Operating profit (loss) before depreciation and amortization, Capital gains (losses) and Impairment reversals (losses) on non-current assets.

  In particular, besides EBIT, EBITDA is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors), as a useful unit of measurement for the evaluation of the operating performance of the Group (as a whole and at the Business Unit level).

EBIT and EBITDA are calculated as follows:

Profit (loss) before tax from continuing operations	
+	Finance expenses
-	Finance income
+/-	Other expenses (income) from investments
+/-	Share of losses (profits) of associates and joint ventures accounted for using the equity method
EBIT – Operating profit (loss)	
+/-	Impairment losses (reversals) on non-current assets
+/-	Losses (gains) on disposals of non-current assets
+	Depreciation and amortization
EBITDA – Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets	

- the **Consolidated statements of comprehensive income** include the profit or loss for the year as shown in the Separate Consolidated Income Statement and all other non-owner changes in equity;

- the **Consolidated statements of cash flows** have been prepared by presenting cash flows from operating activities according to the "indirect method", as permitted by IAS 7 (Statement of Cash Flows).

Furthermore, as required by Consob Resolution 15519 of July 27, 2006, in the separate consolidated income statement, income and expenses relating to transactions which by nature do not occur during normal operation (non-recurring transactions) have been specifically identified and their impacts on the main intermediate levels have been shown separately, when they are significant. Specifically, non-recurring income/(expenses) include, for instance: income/expenses arising from the sale of property, plant and equipment, business segments and investments; expenses stemming from company reorganization and streamlining processes and projects, also in connection with corporate transactions (mergers, spin-offs, etc.); expenses resulting from litigation and regulatory sanctions and related liabilities; other provisions for risks and charges and related reversals; costs for the settlement of disputes other than regulatory disputes; adjustments, realignments and other non-recurring items, also relating to previous years; impairment losses on the goodwill and/or other intangible and tangible assets. Certain costs related to the COVID-19 pandemic are also identified as non-recurring charges.

Also in reference to the above Consob Resolution, the amounts relating to balances or transactions with related parties have been shown separately in the consolidated financial statements.

Segment reporting

An operating segment is a component of an entity:

- that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity);
- whose operating results are regularly reviewed by the entity’s chief operating decision maker to make decisions about resources (for the TIM Group, the Board of Directors of the Parent) to be allocated to the segment and assess its performance; and
- for which separate financial information is available.

The TIM Group operating segments are in line with and continuing on from the information given in the Consolidated Annual Financial Report at December 31, 2021, are represented for the part relating to the telecommunications business, on the basis of the related geographic location (Domestic and Brazil).

The TIM Group 2022-2024 Industrial Plan launched a Group transformation aiming to overcome the vertically integrated model, based on four separate entities with different industrial and economic focuses (NetCo, TIM Consumer, TIM Enterprise and TIM Brasil). These entities cannot today be considered an “operating segment” in accordance with IFRS 8 - Operating segments, insofar as on the one hand, the new entities are still in an analytical design phase and do not, therefore, have analytical economic-financial information available and, on the other, in 2022, the TIM Board of Directors is making decisions on the allocation of resources and assessing the economic-financial performance on both the basis of the historic representation of the Business Units and, insofar as available, the new entities being created.

The term “operating segment” is considered synonymous with “Business Unit”.

The operating segments of the TIM Group are as follows:

- **Domestic**: includes the activities in Italy relating to voice and data services on fixed and mobile networks for end users (retail) and other operators (wholesale), the activities of the Telecom Italia Sparkle group which, at international level (in Europe, the Mediterranean and South America), develops fiber optic networks for wholesale customers, the operations of the company FiberCop for the provision of passive access services on the secondary copper and fiber network, and the activities of Noovle S.p.A. (Cloud and Edge Computing solutions), the activities of Olivetti (products and services for Information Technology), and, Domestic sector support structures. See the section “Financial and Operating Highlights of the Business Units of the TIM Group – Domestic Business Unit” of the Report on Operations for more details;
- **Brazil**: includes mobile and fixed telecommunications operations in Brazil (TIM S.A. group);
- **Other Operations**: include the financial companies (Telecom Italia Capital S.A. and Telecom Italia Finance S.A.) and other minor companies not strictly related to the TIM Group's core business.

NOTE 2
ACCOUNTING POLICIES

Going concern

The consolidated financial statements for the business year 2022 have been prepared on a going concern basis, as there is the reasonable expectation that TIM will continue conducting its business in the foreseeable future (and, in any event, over a period of at least twelve months).
In particular, the following factors have been taken into consideration:

- the main risks and uncertainties (that are for the most part of an external nature) to which the Group and the various activities of the TIM Group are exposed:
  - variations in business conditions, also related to competition;
  - financial risks (interest rate and/or exchange rate trends, changes in the Group's credit rating by rating agencies);
  - changes in the general macroeconomic situation in the Italian, European and Brazilian markets, as well as the volatility of the financial markets deriving from the risks of recession and inflation linked to both the continuation of COVID-19 and its possible variants and the increase in the cost of commodities and energy, also following the Russian-Ukraine conflict;
  - changes in the legislative and regulatory context (changes in prices and tariffs or decisions that may influence technological choices) and the outcome of the legal and regulatory authority proceedings.
- the optimal mix between risk capital and debt capital, as well as the policy for the remuneration of risk capital, as described in the section "Share capital information" under the Note "Equity";
- the policy for financial risk management (market risk, credit risk and liquidity risk), as described in the Note "Financial risk management".

Based on these factors, the Management believes that, at the present time, there are no elements of uncertainty regarding the Group's ability to continue as a going concern.

Principles of consolidation

The consolidated financial statements include the financial statements of all subsidiaries from the date on which control over such subsidiaries commences until the date on which control ceases.

The date of all the subsidiaries' financial statements coincides with that of the Parent company, TIM.

Control exists when the Parent company TIM S.p.A. has all the following:

- decision-making power over the investee, which includes the ability to direct the relevant activities of the investee, i.e. the activities that significantly affect the investee's returns;
- entitlement to the variable profits or losses commensurate with its shareholding in the investee;
- the ability to use its decision-making to determine the amount of the returns relating to its shareholding in the entity.

TIM assesses whether it controls an investee if facts and circumstances indicate that there are changes in one or more of the three control elements.

In the preparation of the consolidated financial statements, the global amounts of the assets, liabilities, costs and revenues of the consolidated companies are recognized on a line-by-line basis, while the share of equity and the year's result of non-controlling interest is recognized is disclosed separately under appropriate items in the consolidated statements of financial position, in the separate consolidated income statement and in the consolidated statements of comprehensive income.

Under IFRS 10 (Consolidated financial statements), the comprehensive loss (including the profit or loss for the year) is attributed to the owners of the parent and to non-controlling interest even when the equity of non-controlling interest has a deficit balance.

All intragroup balances and transactions and any gains and losses arising from intragroup transactions are eliminated in consolidation.

The carrying amount of the investment in each subsidiary is eliminated against the corresponding share of equity in each subsidiary, after adjustment, if any, to fair value at the date of acquisition of control. At that date, goodwill is recorded as an intangible asset, as described below, whereas any profit from a bargain purchase (or negative goodwill) is recognized in the separate consolidated income statement.

All the assets and liabilities expressed in currencies other than euro of foreign consolidated entities that are included in the consolidation are translated using the exchange rates in effect at the reporting date (the current exchange rate method), while the related revenues and costs are translated at the average exchange rates for the year. Exchange differences resulting from the application of this method are classified as equity until the entire disposal of the investment or upon loss of control of the foreign subsidiary. Upon partial disposal, without losing control, the proportionate share of the cumulative amount of exchange differences related to the disposed interest is recognized as non-controlling interest equity. The cash flows of foreign consolidated subsidiaries expressed in currencies other than euro included in the consolidated statements of cash flows are translated into euro at the average exchange rates for the year.

Goodwill and fair value adjustments arising from the allocation of the purchase price of a foreign entity are recorded in the relevant foreign currency and are translated using the year-end exchange rate.

Under IFRS 10, changes in a parent's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. In such circumstances, the carrying amounts of controlling and non-controlling interests shall be adjusted to reflect the changes in their related interests in the subsidiary. Any difference between the amount by which the non-controlling interest is adjusted and the fair value of the consideration paid or received shall be recognized directly in equity and attributed to the owners of the parent.

Under IFRS 10, the parent company in case of loss of control of a subsidiary:

- derecognizes:
  - the assets (including any goodwill) and the liabilities;
  - the carrying amount of any non-controlling interest;
- recognizes:
  - the fair value of any consideration received;
  - the fair value of any residual investment retained in the former subsidiary;
  - any profit or loss resulting from the transaction, in the separate consolidated income statement;
  - the reclassification to the separate consolidated income statement of the amounts previously recognized in other comprehensive income in relation to the subsidiary.

In the consolidated financial statements, investments in associates and joint ventures are accounted for using the equity method, as provided, respectively, by IAS 28 (Investments in Associates and Joint Ventures) and IFRS 11 (Joint Arrangements).

Associates are enterprises in which the Group holds at least 20% of the voting rights or exercises significant influence, but no control or joint control over their financial and operating policies.

A joint venture is a joint control arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the entity.

Joint control is the contractually agreed sharing of control of a business that exists only when decisions about the relevant business require the unanimous consent of the parties sharing control.

Associates and joint ventures are included in the consolidated financial statements from the date on which significant influence or joint control commences until the date on which significant influence or joint control ceases.

Under the equity method, on initial recognition the investment in an associate or joint venture is recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss of the investee after the date of acquisition. The investor's share of the investee's profit or loss is recognized in the separate consolidated income statement. Dividends received from an investee reduce the carrying amount of the investment.

Adjustments to the carrying amount may also be necessary for changes in the investee's other comprehensive income (i.e. those arising from foreign exchange translation differences). The investor's share of those changes is recognized in the investor's other comprehensive income.

If an investor's share of losses of an associate or a joint venture equals or exceeds its interest in the associate or joint venture, the investor discontinues recognizing its share of further losses. After the investor's interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the investor has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture. If the associate or joint venture subsequently reports profits, the investor resumes recognizing its share of those profits only after its share of the profits equals the share of losses not recognized.

Any other long-term interests (some types of preference shares and long-term loans) in an associate or joint venture are measured in accordance with IFRS 9.

Gains and losses resulting from "upstream" and "downstream" transactions between an investor (including its consolidated subsidiaries) and its associate or joint venture are recognized in the investor's financial statements only to the extent of unrelated investors' interests in the associate or joint venture.

The investor's share of profits and losses of the associate or joint venture arising from said transactions is eliminated.

Intangible assets

Goodwill

In accordance with IFRS 3 (Business Combinations), goodwill is recognized in the financial statements at the date of acquisition of control of a business and is determined as the excess of (a) over (b), as follows:

a) the aggregate of:

- the consideration transferred (measured in accordance with IFRS 3; it is generally recognized on the basis of the fair value at the acquisition date);
- the amount of any non-controlling interest in the acquiree measured proportionally to the non-controlling interest share of the acquiree's identifiable net assets shown at the related fair value;
- in a business combination achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree;

b) the fair value of the identifiable assets acquired net of the identifiable liabilities assumed, measured at the date of acquisition of control.

IFRS 3 requires, inter alia, the following:

- incidental costs incurred in connection with a business combination to be charged to the separate income statements;
- in a business combination achieved in stages, the acquirer to remeasure its previously held equity interest in the acquiree at its fair value at the date of acquisition of control and recognize the resulting gain or loss, if any, in the separate income statements.

Goodwill is classified in the statement of financial position as an intangible asset with an indefinite useful life.

Goodwill initially recognized is subsequently reduced only by cumulative impairment losses (for more details, see the section "Impairment of intangible assets, tangible assets and rights of use assets - Goodwill", below). In case of loss of control of a subsidiary, the related amount of goodwill is taken into account in calculating the gain or loss on disposal.

Development costs

Costs incurred internally for the development of new products and services represent either intangible assets (mainly costs for software development) or tangible assets. These costs are capitalized only when all the following conditions are satisfied: i) the cost attributable to the development phase of the asset can be measured reliably, ii) there is the intention, the availability of financial resources and the technical ability to complete the asset and make it available for use or sale, and iii) it can be demonstrated that the asset will be able to generate future economic benefits. Capitalized development costs comprise only incurred expenditures that can be attributed directly to the development process for new products and services.

Capitalized development costs are depreciated/amortized systematically over the estimated product or service life, so that the depreciation/amortization method reflects the way in which the asset's future economic benefits are expected to be consumed by the entity.

Other intangible assets with a finite useful life

Other purchased or internally-generated intangible assets with a finite useful life are recognized as assets, in accordance with IAS 38 (Intangible Assets), when the use of the asset is likely to generate future economic benefits and when the cost of the asset can be reliably measured.

Such assets are recorded at purchase or production cost and amortized on a straight-line basis over their estimated useful lives; the amortization rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized prospectively in the separate consolidated income statement.

Tangible assets

Property, plant and equipment

Property, plant and equipment are recognized at purchase or production cost. Subsequent expenditures are capitalized only if they increase the future economic benefits embodied in the related item of property, plant and equipment. All other expenditures are recognized in the separate consolidated income statement as incurred.

The cost of these assets also includes the expected costs of dismantling the asset and restoring the site, if a legal or constructive obligation exists. The corresponding liability is recognized at its present value in a provision for risks and charges in the liabilities. The recognition in the separate consolidated income statement of the capitalized expenditure is done over the useful life of the related tangible assets through their depreciation.

The calculation of estimates for dismantling costs, discount rates and the dates in which such costs are expected to be incurred is reviewed annually at each financial year-end. Changes in the above liability must be recognized as an increase or decrease of the cost of the related asset; the amount deducted from the cost of the asset must not exceed its carrying amount. The excess, if any, is recorded immediately in the separate consolidated income statement, conventionally under the line item "Depreciation and Amortization".

Depreciation is calculated on a straight-line basis over the estimated useful life of the assets.

Depreciation rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized prospectively in the separate consolidated income statement.

Land, including land pertaining to buildings, is not depreciated.

Rights of use assets

In accordance with IFRS 16, lease liabilities are presented through the recognition of a financial liability in the statement of financial position consisting in the present value of future lease payments, against the recognition of the right of use of the leased asset.

On the commencement date of the lease, the right of use is recognized at cost including: the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date, initial direct costs incurred for the signature of the lease and the present value of the estimated restoration and dismantling costs set out in the lease, less any incentives.

Subsequently, the right of use is amortized over the term of the lease (or the useful life of the asset, if lower), subject to impairment and adjusted for any remeasurement of the lease liability.

It is specified that starting January 1, 2021, the TIM Group has attracted, under the scope of application of IFRS 16, if the criteria and the requirements laid down by the standard are met, the new contract types concerning cloud software resources and the spectrum of transmission frequencies on optic fiber carriers. This approach is functional to the very innovative specificity of these types of contract, concerning hardware infrastructure and optical transmission as well as technologically-advanced software services.

Capitalized borrowing costs

Under IAS 23 (*Borrowing Costs*), the Group capitalizes borrowing costs only if they are directly attributable to the acquisition, construction or production of an asset that takes a substantial period of time (conventionally more than 12 months) to get ready for its intended use or sale.

Capitalized borrowing costs are recorded in the separate consolidated income statement and deducted directly from the "finance expenses" line item to which they relate.

Impairment of intangible, tangible and rights of use assets

Goodwill

Goodwill is tested for impairment at least annually or more frequently whenever events or changes in circumstances indicate that goodwill may be impaired, as set forth in IAS 36 (Impairment of Assets); however, when the conditions that gave rise to an impairment loss no longer exist, the original amount of goodwill is not reinstated.

The test is generally conducted at the end of every year, so the date of testing is the year-end closing date of the financial statements. Goodwill acquired and allocated during the year is tested for impairment at the end of the year in which the acquisition and allocation took place.

For the purpose of verifying its recoverability, goodwill is allocated, from the acquisition date, to each of the cash-generating units, or groups of cash-generating units, that is expected to benefit from the combination.

If the carrying amount of the cash-generating unit (or group of cash-generating units) exceeds the recoverable amount, an impairment loss is recognized in the separate consolidated income statement. The impairment loss is first recognized as a deduction of the carrying amount of goodwill allocated to the cash-generating unit (or group of cash-generating units) and only subsequently applied to the other assets of the cash-generating unit in proportion to their carrying amount, up to the recoverable amount of the assets with a finite useful life. The recoverable amount of a cash-generating unit (or group of cash-generating units) to which goodwill is allocated is the higher between the fair value less costs to sell and its value in use.

The fair value net of disposal costs is estimated on the basis of the income approach, insofar as this allows for the reflection of the benefits deriving from a new, different business structure in the future. In particular, the fair value net of disposal costs is based on the current value of the forecast cash flow, applying a discounting rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value.

In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value. The long-term growth rate used to estimate the terminal value of the cash-generating unit (or group of cash-generating units) is assumed not to be higher than the average long-term growth rate of the segment, country or market in which the cash-generating unit (or group of cash-generating units) operates.

The value in use of cash-generating units denominated in foreign currency is estimated in the local currency by discounting cash flows to present value on the basis of an appropriate rate for that currency. The present value obtained is translated to euro at the spot rate on the date of the impairment test (in the case of the TIM Group, the closing date of the financial statements).

Future cash flows are estimated by referring to the current operating conditions of the cash-generating unit (or group of cash-generating units) and, therefore, do not include either benefits originating from future restructuring for which the entity is not yet committed, or future investments for the improvement or optimization of the cash-generating unit.

For the purpose of calculating impairment, the carrying amount of the cash-generating unit is established based on the same criteria used to determine the recoverable amount of the cash-generating unit, excluding surplus assets (that is, financial assets, deferred tax assets and net non-current assets held for sale) and includes the goodwill attributable to non-controlling interest (minority shareholders).

After conducting the goodwill impairment test for the cash-generating unit (or groups of cash-generating units), a second level of impairment testing is carried out which includes the corporate assets which do not generate positive cash flows and which cannot be allocated by a reasonable and consistent criterion to the single units. At this second level, the total recoverable amount of all cash-generating units (or groups of cash-generating units) is compared to the carrying amount of all cash-generating units (or groups of cash-generating units), including also those cash-generating units to which no goodwill was allocated, and the corporate assets.

Tangible and intangible assets with finite useful lives and rights of use assets

At the end of each reporting period, the Group assesses whether there is any indication that an asset – whether intangible or tangible with finite useful lives or a right of use – may be impaired. Both internal and external sources of information are used for this purpose. Internal sources include obsolescence or physical deterioration, and significant changes in the use of the asset and the operating performance of the asset compared to estimated performance. External sources include the market value of the asset, any changes in technology, markets or laws, trends in market interest rates and the cost of capital used to evaluate investments, and an excess of the carrying amount of the net assets of the Group over market capitalization.

If there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – has been impaired, then its carrying amount is reduced to its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell, and its value in use. In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or right. If it is not possible to estimate the recoverable amount, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Impairment losses are recognized in the separate consolidated income statement.

When the reasons for the impairment subsequently cease to exist, the carrying value of the asset/right-of-use or of the cash generating unit is increased up to the new estimate of the recoverable amount which, however, cannot exceed the amount that would have been determined had no impairment loss been recognized. The reversal of an impairment loss is recognized as income in the separate consolidated income statement.

Financial instruments

Business models for financial assets management

For the management of trade receivables, TIM Group Management has identified different business models based on the specific nature of the receivables, the type of counterparty and collection times, this was in order to optimize the management of working capital through the constant monitoring of the payment performance of customers, the steering of credit collection policies, and the management of programs for the disposal of receivables, and the activation of factoring consistent with financial planning requirements.

The business models adopted are:

- Hold to Collect: receivables usually held to maturity, such as trade receivables due from large customers and the OLOs for the Domestic Business Unit, and all receivables for the Brazil Business Unit; these instruments fall within the IFRS 9 category “Assets measured at amortized cost”. These receivables can be transferred, albeit not recurrently, if this is needed to optimize finances;
- Hold to Collect and Sell: receivables usually traded massively and on a recurring basis, such as, for the Domestic Business Unit, receivables due from active consumer, small and business customers held for sale; these instruments fall under the IFRS 9 category "Financial assets measured at fair value through other comprehensive income". As required by IFRS 9, the related reserve is reversed to the separate consolidated income statement when disposed of or impaired.

As part of managing financial assets other than trade receivables, the TIM Group's Management identified its business models on the basis of how the financial instruments are managed and how their cash flows are used. This is done to ensure an adequate level of financial flexibility and to best manage, in terms of risks and returns, the financial resources immediately available through the treasuries of Group companies and in accordance with the strategies set forth by the Parent TIM.

The business models adopted are:

- Hold to Collect: financial instruments used to absorb temporary cash surpluses; such instruments are low risk and mostly held to maturity; they are measured at amortized cost;
- Hold to Collect and Sell: monetary or debt instruments used to absorb short/medium-term cash surpluses; such instruments are low risk and generally held to maturity, or otherwise sold to cover specific cash requirements; they are measured at fair value through other consolidated comprehensive income;
- Hold to Sell: monetary, debt and equity trading instruments used to dynamically manage cash surpluses not managed under the business models identified above; such instruments are higher risk and traded repeatedly over time; they are measured at fair value through the separate consolidated income statement.

Other investments

Other investments (other than those in subsidiaries, associates and joint ventures) are classified as non-current or current assets if they will be kept in the Group's portfolio for a period of more or not more than 12 months, respectively.

Other investments are classified as “financial assets measured at fair value through consolidated profit or loss” (FVTPL), as current assets.

At the purchase time of each investment, IFRS 9 provides for the irrevocable option to recognize these investments in "financial assets measured at fair value through other consolidated comprehensive income" (FVTOCI) as non-current or current assets.

The other investments classified as “financial assets measured at fair value through other comprehensive income” are measured at fair value; changes in the fair value of these investments are recognized in a special equity reserve under the other components of the statements of comprehensive income (Reserve for financial assets measured at fair value through other comprehensive income), without reclassification to the separate income statements when the financial asset is disposed of or impaired. Dividends are recognized in the separate consolidated income statement.

Changes in the value of other investments classified as "financial assets at fair value through profit or loss" are recognized directly in the separate consolidated income statement.

Securities other than investments

Securities other than investments, included among non-current or current assets, depending on the business model adopted and the contractual flows envisaged, fall among financial assets measured at amortized cost, or measured at fair value through other comprehensive income or at fair value though profit or loss.

Securities other than investments classified as current assets are those that, by decision of the directors, are intended to be kept in the Group's portfolio for a period of not more than 12 months, and are classified:

- as "financial assets measured at amortized cost" (AC) when held to maturity (originally more than 3 months but less than 12 months, or, although they had an original maturity of more than 12 months, they have been bought in a period during which maturity was included between 3 and 12 months);
- as "financial assets measured at fair value through other consolidated comprehensive income" (FVTOCI) when held in the scope of a business model whose objective is to sell the financial asset and/or collect the contractual cash flows. The consolidated "Reserve for financial assets measured at fair value through other comprehensive income" is reversed to the separate consolidated income statement when the financial asset is disposed of or impaired;
- as “financial assets measured at fair value through consolidated profit or loss" (FVTPL) in the other cases.

Cash and cash equivalents

Cash and cash equivalents are recorded, according to their nature, at nominal value or amortized cost.

Cash equivalents are short-term and highly liquid investments that are readily convertible to known amounts of cash, subject to an insignificant risk of change in value and their original maturity or the remaining maturity at the date of purchase does not exceed 3 months.

Impairment of financial assets

At every closing date, assessments are made as to whether there is any objective evidence that a financial asset or a group of financial assets has been impaired.

The impairment of financial assets is based on the expected credit loss model.

In particular:

- impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions;
- the impairment of financial assets other than trade receivables is calculated on the basis of a general model which estimates expected credit losses over the following 12 months or over the residual life of the asset in the event of a substantial worsening of its credit risk.

Derivatives

As allowed by IFRS 9, the TIM Group decided to continue to apply the hedge accounting provisions contained in IAS 39 instead of those of IFRS 9.

Derivatives are used by the TIM Group to manage its exposure to exchange rate and interest rate risks and to diversify the parameters of debt, so that costs and volatility can be reduced within pre-established operational limits.

In accordance with IAS 39, derivative financial instruments qualify for hedge accounting only when:

- at the inception of the hedge, the hedging relationship is formally designated and documented;
- the hedge is expected to be highly effective;
- its effectiveness can be reliably measured;
- the hedge is highly effective throughout the financial reporting periods for which it is designated.

All derivative financial instruments are measured at fair value in accordance with IAS 39.

When derivative financial instruments qualify for hedge accounting, the following accounting treatment applies:

- Fair value hedge – Where a derivative financial instrument is designated as a hedge of the exposure to changes in fair value of an asset or liability due to a particular risk, the profit or loss from re-measuring the hedging instrument at fair value is recognized in the separate consolidated income statement. The profit or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is recognized in the separate consolidated income statement.
- Cash flow hedge – Where a derivative financial instrument is designated as a hedge of the exposure to variability in cash flows of an asset or liability or a highly probable expected transaction, the effective portion of any gain or loss arising from the fair value adjustment of the derivative financial instrument is recognized directly in a specific equity reserve (Reserve for hedging instruments). The cumulative profit or loss is removed from equity and recognized in the separate consolidated income statement during the same business years in which the hedged transaction is recognized in the separate consolidated income statement. The profit or loss associated with the ineffective portion of a hedge is recognized in the separate consolidated income statement immediately. If the hedged transaction is no longer considered to be probable, the gains or losses not yet realized included in the equity reserve are immediately recognized in the separate consolidated income statement.

For derivatives for which a hedging relationship has not been designated, changes in value compared to initial recognition are recognized directly in the separate consolidated income statement.

Financial liabilities

Financial liabilities include financial payables, including payables for advances on assignments of receivables where the assignment does not transfer substantially all the risks and rewards, as well as other financial liabilities, including derivative financial instruments and liabilities in respect of assets recognized under finance leases recognized in accordance with IFRS 16.

In accordance with IFRS 9, they also include trade and other payables.

Reverse factoring transactions are also classified under trade payables. The TIM Group has reverse factoring agreements in place through which TIM gives its bank partners a mandate to pay its suppliers as invoices become due. Suppliers participating in these programs have the rights to sell (without any cost for the TIM Group) receivables due from the Group. They can exercise this right at their total discretion and incurring all the costs to benefit from collection before the contractual due date.

Financial liabilities other than derivatives are initially recognized at fair value and subsequently measured at amortized cost.

Financial liabilities hedged by derivative instruments designed to manage exposure to changes in the value of liabilities (fair value hedge derivatives) are measured at fair value in accordance with the hedge accounting principles of IAS 39: the profits and losses deriving from subsequent fair value adjustments, only as regards the covered component, are recognized in the separate consolidated income statement and counterbalanced by the effective portion of the profit or loss deriving from the corresponding fair value measurements of the hedge instrument.

Financial liabilities hedged by derivative instruments designed to manage exposure to variability in cash flows (cash flow hedge derivatives) are measured at amortized cost in accordance with the hedge accounting principles of IAS 39.

Transfer of receivables

The TIM Group transfers receivables through factoring and securitization agreements. These transfers, in the majority of cases, are characterized by the transfer of substantially all the risks and rewards of ownership of the receivables to third parties, therefore meeting the requirements of IFRS 9 for derecognition. Special service agreements, under which the purchasers grant TIM S.p.A. a mandate to oversee the collection and management of receivables, have been entered into to maintain the relationship between the Company and its customers.

Inventories

Inventories are measured at the lower of purchase or production cost and estimated realizable value; the cost is determined using the weighted average cost formula for each movement, while the estimated realizable value is determined by observing general prices at the end of the year. Provision is made for obsolete and slow-moving inventories based on their expected future use and estimated realizable value.

Non-current assets held for sale/Discontinued operations

Non-current assets held for sale or discontinued groups whose carrying amount will mainly be recovered through sale, rather than through ongoing use, are classified as held for sale and shown separately from other assets and liabilities in the consolidated statements of financial position. The corresponding amounts for the previous year are not reclassified in the consolidated statements of financial position, but are instead shown separately in a specific column for changes in assets and liabilities in the year in which non-current assets held for sale or discontinued groups are classified as such.

Discontinued operations are a component of an entity that has been terminated or classified as held for sale and that:

- represents a major business line or geographical area of operation; or
- is part of a single coordinated plan to discontinue a separate major line of business or geographical area of operation; or
- is a subsidiary acquired exclusively with a view to resale.

The results arising from Discontinued Operations – whether discontinued or classified as held for sale – are shown separately in the separate consolidated income statement, net of tax effects. The corresponding values for the previous periods, where present, are reclassified and reported separately in the separate consolidated income statement, net of tax effects, for comparative purposes.

Non-current assets held for sale or discontinued groups classified as held for sale are first recognized in compliance with the appropriate IFRS applicable to each specific asset and liability, and subsequently measured at the lower of the carrying amount and fair value, less cost to sell.

Any subsequent impairment losses are recognized as a direct adjustment to non-current assets (or discontinued groups) classified as held for sale, with a contra-entry in the separate consolidated income statement.

An upward revision of value is, instead, recognized for each subsequent increase in the fair value of an asset less cost to sell, but not in excess of the previously recognized cumulative impairment loss.

As required by IFRS 5 (Non-current assets held for sale and discontinued operations), an entity shall not depreciate (or amortize) non-current assets classified as held for sale or being part of a discontinued group.

Finance expenses and other expenses attributable to the liabilities of a discontinued group classified as held for sale must continue to be recognized.

Employee benefits

Provision for employee severance indemnity

Employee severance indemnity, mandatory for Italian companies pursuant to Article 2120 of the Italian Civil Code, is deferred compensation based on the employee's years of service and on the compensation earned by the employee during the service period.

Under IAS 19 (Employee Benefits), the employee severance indemnity as calculated is considered a "Defined benefit plan" and the related liability recognized in the statement of financial position (Provision for employee severance indemnities) is determined by actuarial calculations.

The remeasurements of actuarial gains and losses are recognized in other components of the Consolidated Statements of Comprehensive income. Service cost of Italian companies that employ less than 50 employees, as well as interest expenses related to the "time value" component of the actuarial calculations (the latter classified as Finance expenses), are recognized in the separate consolidated income statement.

Starting from January 1, 2007, the Italian Law gave employees the choice to either allocate their accruing indemnity to supplementary pension funds or it as an obligation of the Company. Companies that employ at least 50 employees must transfer the employee severance indemnity to the "Treasury fund" managed by INPS, the Italian Social Security Institute. Consequently, the Group's obligation to INPS and the contributions to supplementary pension funds take the form, under IAS 19, of "Defined contribution plans".

Equity compensation plans

The companies of the Group provide additional benefits to certain managers of the Group through equity compensation plans (for example stock options and long-term incentive plans). The above plans are recognized in accordance with IFRS 2 (Share-Based Payment).

In accordance with IFRS 2, such plans represent a component of the beneficiaries' compensation. Therefore, for the plans that provide for compensation in equity instruments, the cost is represented by the fair value of such instruments at the grant date, and is recognized in the separate consolidated income statement in "Employee benefits expenses" over the period between the grant date and vesting date with a contra-entry to an equity reserve denominated "Other equity instruments". Changes in the fair value subsequent to the grant date do not affect the initial measurement. At the end of each year, adjustments are made to the estimate of the number of rights that will vest up to maturity. The impact of the change in estimate is recorded as an adjustment to "Other equity instruments" with a contra-entry to "Employee benefits expenses".

The portion of the plans that specifies the payment of compensation in cash is recognized in liabilities as a contra-entry to "Employee benefits expenses"; at the end of each year said liability is measured at fair value.

Provisions

The Group records provisions for risks and charges when, having a current legal or constructive obligation to a third party, as a result of a past event, an outflow of Group resources is likely to be required to meet that obligation, and when the amount of the obligation can be estimated reliably. Provisions for risks and charges also include those established in the event that the company should stipulate contracts that thereafter became onerous, the non-discretionary costs of which necessary to fulfill the commitments made, exceeding the economic benefits expected from such contracts.

When the effect of the time value is material and the payment date of the obligations can be reasonably estimated, the provision is determined by discounting the given expected cash flows by taking into account the risks associated with the obligation. The increase in the provision due to the passage of time is recognized in the separate consolidated income statement as "Finance expenses".

Government grants

Government grants are recognized when there is a reasonable certainty that they will be received and that the Group will satisfy all the conditions established for their granting by the government, government agencies and equivalent local, national or international entities.

Government grants are systematically recognized in the separate income statements over the periods in which the Group recognizes the expenses that the grants are intended to offset as costs.

Government grants related to assets received for the acquisition and/or construction of non-current tangible assets are recorded as deferred income in the statement of financial position and systematically credited to the separate income statements over the useful life of the systems the grants relate to.

Treasury shares

Treasury shares are recognized as a deduction from equity. In particular, the treasury shares are reported as a deduction from the share capital issued in the amount corresponding to the "accounting par value", that is the ratio of total share capital and the number of issued shares, while the excess cost of acquisition over the accounting par value is presented as a deduction from "Other reserves and retained earnings (accumulated losses), including profit (loss) for the year".

Foreign currency transactions

Transactions in foreign currencies are recorded at the foreign exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rate prevailing at the statement of financial position date. Exchange differences arising from the settlement of monetary items or from their conversion at rates different from those at which they were initially recorded during the year or at the end of the prior year are recognized in the separate consolidated income statement.

Revenues

Revenues are the gross inflows of economic benefits during the period arising in the course of the ordinary activities of an entity. Amounts collected on behalf of third parties, such as sales taxes, goods and services taxes and value added taxes, are not economic benefits which flow to the entity and do not result in increases in equity. Therefore, they are excluded from revenues.

The process underlying the recognition of revenues follows the steps set out in IFRS 15:

- **identification of the contract:** this takes place when the parties approve the contract (with commercial substance) and identify the respective rights and obligations: in other terms, the contract must be legally binding, the rights to receive goods and/or services and the terms of payment can be clearly identified, and the Group considers receipt of payment as probable;
- **identification of the performance obligations**: the main performance obligations identified, i.e. promises to transfer goods and services that are distinct, are services rendered (including voice and data traffic and ICT solutions) to retail customers, services rendered to wholesale customers, and sale of products;
- **determination of the transaction price**: this is the total amount contracted with the other party regarding the entire contractual term; the Group has determined that the contractual term is the one arising from the contractual obligations between the parties or, in lack of these obligations, it is by convention one month;
- **allocation of the transaction price to the performance obligations**: the allocation is made proportionately to the respective stand-alone selling prices calculated based on the list prices (if present) or estimated by applying an appropriate margin to the cost of purchase/production of the good/service.

  Revenues from activating the connectivity service are not a performance obligation; they are therefore allocated to the contractual performance obligations (typically to services).
  For offerings which include the sale of devices and service contracts (bundle offerings), the Group allocates the contractual transaction price to the performance obligations of the contract, proportionately to the stand-alone selling prices of the single performance obligations;
- **recognition of revenues**: revenues are stated net of discounts, allowances, and returns in connection with the characteristics of the type of revenue:
  - **Revenues from services rendered**

    Revenues from services rendered are recognized in the separate income statements according to the stage of completion of the service, that is based on actual consumption.
    Traffic revenues from interconnection and roaming are reported gross of the amounts due to other TLC operators.
    Revenues for delivering information or other content are recognized on the basis of the amount invoiced to the customer, when the service is rendered directly by the Group. In the event that the Group is acting as agent (for example, for non-geographic numbers) only the commission received from the content provider is recognized as revenue.
    Revenues from prepaid traffic are recorded on the basis of effective consumption. Deferred revenues for traffic already collected but not yet consumed are recorded in “Trade and miscellaneous payables and other current liabilities” in the consolidated statements of financial position.
    Revenues for services rendered are generally invoiced and collected bimonthly/monthly for retail customers while for wholesale customers, they are invoiced on a monthly basis and due 40 or 60 days

after the date of issue, depending on whether they relate to the mobile component (40 days) or fixed component (60 days).

- **Revenues from sales**

  Revenues from sales (telephone products and others) are recognized upon delivery when control of the assets is transferred to the customers.
  The devices sold separately from the services are invoiced at the time of delivery; collection takes place on demand or based on installment plans (up to 48 monthly installments). The devices sold as part of bundle offerings are invoiced at the time of delivery and usually collected in 24, 30 or 48 monthly installments, depending on the type of offer and customer cluster. With specific reference to the mobile products sold to consumer customers, collection is made at the time of sale through the financial company TIMFin, which disburses the loan to the customer.

The recognition of revenues can generate the recognition of an asset or liability deriving from contracts. In particular:

- **Contract assets** are the right to a consideration in exchange for goods or services that have been transferred to the customer, when the right is conditioned on something other than the passage of time;
- **Contract liabilities** are the obligation to transfer goods or services to the customer for which the Group has received (or for which it is due) a consideration from the customer.

Contract costs (incremental costs of obtaining a contract and costs to fulfill a contract; mainly technical activation costs and costs for sales network commissions) are deferred and recognized through separate consolidated income statement depending on the expected term of the contractual relationship with the customers. The TIM Group avails of the practical expedient, permitted under IFRS 15, of recognizing the incremental costs of obtaining a contract in the consolidated income statement if the amortization period is one year or less.

The recoverability of contract assets and deferred costs is periodically assessed.

Research and advertising costs

Research and advertising costs are directly expensed to the separate consolidated income statement in the year in which they are incurred.

Finance income and expenses

Finance income and expenses are recognized on an accrual basis and include: interest accrued on the related financial assets and liabilities using the effective interest rate method; changes in the fair value of derivatives and other financial instruments measured at fair value through the income statement; gains and losses on foreign exchange and financial instruments (including derivatives).

Dividends

Dividends received from companies other than subsidiaries, associates and joint ventures are recognized in the separate consolidated income statement on an accrual basis, i.e. in the year in which they become receivable following the resolution by the shareholders' meeting for the distribution of dividends of the investee companies.

Dividends payable to third parties are reported as a change in equity in the year in which they are approved by the shareholders' meeting.

Income tax expense (current and deferred)

Income tax expense includes all taxes calculated on the basis of the taxable income of the companies of the Group.

Current and deferred income tax expense is calculated using all the elements and information available at the reporting date, taking into account current laws and considering all the elements that could give rise to uncertainties in the determination of the amounts due to the tax authorities, as provided for in IFRIC 23.

Income tax expense is recognized in the separate consolidated income statement, except to the extent that they relate to items directly charged or credited to equity, in which case the related tax effect is recognized in the relevant equity reserves. The amount of the income tax expense relating to each item included as "Other components of the Consolidated Statements of Comprehensive income" is indicated in the Consolidated Statement of comprehensive income.

The provisions for taxes that could arise from the remittance of the undistributed earnings of subsidiaries are made only where there is the actual intention to remit such earnings.

Deferred tax liabilities/assets are recognized using the "Balance sheet liability method". They are calculated on all the temporary differences that arise between the taxable base of assets and liabilities and the related carrying amounts in the consolidated financial statements, except for differences arising from investments in subsidiaries that are not expected to reverse in the foreseeable future. Deferred tax assets relating to unused tax loss carryforwards are recognized to the extent that it is probable that future taxable income will be available against which they can be utilized. Tax assets and liabilities are offset, separately for current and deferred taxes, when income tax expense is levied by the same tax authority and when there is a legally enforceable offsetting right. Tax assets and deferred tax liabilities are determined by adopting the tax rates expected to be applicable in the respective jurisdictions of the countries in which the Group companies operate, in the years in which those temporary differences are expected to be recovered or settled.

The other taxes not related to income are included in "Other operating expenses".

Earnings per share

Basic earnings per ordinary share is calculated by dividing the Group's profit attributable to ordinary shares by the weighted average number of ordinary shares outstanding during the year, and excluding treasury shares. Similarly, basic earnings per savings share is calculated by dividing the Group's profit attributable to savings shares by the weighted average number of savings shares outstanding during the year.

For diluted earnings per ordinary share, the weighted average number of shares outstanding during the year is adjusted by assuming the subscription of all the potential deriving shares - for example, by exercising rights on shares with dilutive effects. The Group profit is also adjusted to reflect the impact of these transactions net of the related tax effects.

Use of accounting estimates

The preparation of consolidated financial statements and related notes in conformity with IFRS requires management to make estimates and assumptions based also on subjective judgments, past experience and assumptions considered reasonable and realistic in relation to the information known at the time of the estimate. Such estimates have an effect on the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as on the amount of revenues and costs during the year. Actual results could differ, even significantly, from those estimates owing to possible changes in the factors considered in the determination of such estimates. Estimates are reviewed periodically.

The most significant accounting estimates that involve a high level of subjective assumptions and judgments by directors are set out below.

Financial statements area	**Accounting estimates**
Goodwill impairment	The impairment test on goodwill is carried out by comparing the carrying amount of cash-generating units and their recoverable amount. The recoverable amount of a cash-generating unit is the higher of fair value, less costs to sell, and its value in use. This complex valuation process entails the use of methods such as the discounted cash flow method, which uses assumptions to estimate cash flows. The fair value net of disposal costs is based on the current value of forecast cash flow, calculated using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The recoverable amount depends significantly on the discount rate used in the discounted cash flow model, as well as the expected future cash flows and the growth rate used for the extrapolation. The key assumptions used to determine the recoverable amount for the different cash-generating units, including a sensitivity analysis, are detailed in the Note "Goodwill".
Impairment of tangible and intangible assets with finite useful lives and rights of use assets	At the end of each reporting period, the Group assesses whether there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – has been impaired. Both internal and external sources of information are used for this purpose. Identifying the impairment indicators, estimating future cash flows and calculating the fair value of each asset requires the Management to make significant estimates and assumptions in calculating the discount rate to be used, and the useful life and residual value of the assets. These estimates can have a significant impact on the fair value of the assets and on the amount of any impairment write-down.
Business combinations	The recognition of business combinations requires that assets and liabilities of the acquiree be recorded at their fair value at the control acquisition date, as well as the possible recognition of goodwill. These values are determined through a complex estimation process.
Lease liabilities and rights of use assets	The value of lease liabilities and corresponding rights of use is determined by calculating the present value of the lease payments, also bearing in mind whether the renewal of the lease is reasonably certain.
Capitalization/deferment of costs	The capitalization/deferment of internal and external costs is a process that entails elements of estimation and valuation. Specifically, it involves the valuation of: i) the likelihood that capitalized costs will be recovered through correlated future revenues; and ii) the effective increase in the future economic benefits embodied in the related asset.

Provision for bad debts	Impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions.
Depreciation and amortization	Changes in the economic conditions of the markets, technology and competitive forces could significantly affect the estimated useful lives of tangible and intangible non-current assets and may lead to a difference in the timing, and thus on the amount of depreciation and amortization expense.
Provisions, contingent liabilities and employee benefits	As regards the provisions for restoration costs, the estimate of future costs to dismantle tangible assets and restore the site is a complex process that requires the valuation of the liabilities arising from such dismantling and restoration obligations, which seldom are entirely defined by laws, administrative regulations or contract clauses, and which normally are to be complied with after an interval of several years. The provisions related to legal, arbitration and fiscal disputes, as well as regulatory proceedings, are the result of a complex estimation process based upon the probability of an unfavorable outcome. Provisions for employee benefits, especially the provision for employee severance indemnities, are calculated using actuarial assumptions; changes in such assumptions could have a material impact on such liabilities. Provisions made for contractual risks are also related to any contracts that may have become onerous and are based on an articulated estimation process that envisages the valuation of the comprehensive negative margins of the entire contract; they therefore include the non-discretionary costs necessary to fulfill the commitments made that exceed the economic benefits expected from such contracts.
Revenues	The recognition of revenues is influenced by estimates of the amount of discounts, rebates and returns to be reported as a direct adjustment to revenues, as well as the methods for defining individual product or service stand-alone selling prices and for determining the duration of the contract when there are renewal options.
Contract costs (IFRS 15)	The recognition of the costs of obtaining and fulfilling contracts is influenced by the estimated expected duration of the relationship with the customer, calculated on the basis of the historical turnover indexes and future estimates. However, this estimate is subject to fluctuations and could only represent customers' future behavior in a limited way, especially if there are new commercial offers or changes in the competitive environment.
Income tax expense (current and deferred)	Income tax expense (current and deferred) are calculated in each country in which the Group operates according to a prudent interpretation of the applicable tax laws. This process sometimes involves complex estimates to determine taxable income and deductible and taxable temporary differences between the carrying amounts and the taxable amounts. In particular, deferred tax assets are recognized to the extent that future taxable income will be available against which they can be recovered. The measurement of the recoverability of deferred tax assets, recognized based on both unused tax loss carry-forwards to future years and deductible temporary differences, takes into account the estimate of future taxable income and is based on conservative tax planning.
Derivative instruments and equity instruments	The fair value of derivative instruments and equity instruments is determined both using valuation models which also take into account subjective measurements such as, for example, cash flow estimates, expected volatility of prices, etc., and on the basis of prices existing in regulated markets or quotations provided by financial counterparties. For further details refer to the Note "Supplementary disclosures on financial instruments".

As per IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors) paragraph 10, in the absence of a standard or interpretation that specifically applies to a transaction, the Management shall use its judgment in developing and applying an accounting policy that results in consolidated financial statements that represent faithfully the financial position, financial performance and cash flows of the Group, reflect the economic substance of transactions, and are neutral, prudential and complete in all material aspects.

New standards and interpretations endorsed by the EU and in force from January 1, 2022

As required by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), the following is a brief description of the IFRS in force commencing as of January 1, 2022.

Collection of changes of limited scope to the IFRSs

On June 28, 2021, Commission Regulation (EU) 2021/1080 was issued, implementing various amendments of limited scope to the IFRSs. The collection includes changes to three IFRSs as well as annual improvements to the IFRSs that regard minor, non-urgent changes (but which are necessary). These changes must be applied for all years starting after January 1, 2022. The following amendments have been issued:

- **IAS 16: "Property, plant and equipment" - Proceeds before intended use**

  The amendment prohibits a company from deducting from the cost of Property, plant and equipment amounts received from selling items produced while the company is preparing the asset for the intended use (e.g. proceeds from the sale of samples produced when testing a machine to see if it is functioning properly).

  The proceeds form the sale of any such samples, together with the costs for their production, must be noted on the income statement.

- **IAS 37: "Onerous contracts - Costs of fulfilling a contract"**
  The amendment clarifies the meaning of "costs of fulfilling a contract". The amendment clarifies that the direct costs for the execution of a contract include:

  a. incremental costs for fulfilling the contract (e.g. labor and direct materials); and

  b. an allocation of other costs directly related to the fulfillment of contracts (e.g. allocation of the depreciation share for an item of Property, plant and equipment used to fulfill a contract).

  The change may entail the recording of more onerous provision as previously some entities only included the incremental costs in the costs for fulfilling a contract.

- **IFRS 3: "Reference to the conceptual framework"**
  The Board has updated IFRS 3 "Business combinations" to refer to the 2018 conceptual framework for financial reporting, in order to determine what exactly is an asset or a liability in a business combination. Before the amendment, IFRS 3 referred to the 2001 conceptual framework for the financial disclosure.

  These changes do not alter the accounting procedure envisaged for business combinations.

The adoption of these amendments had no effect on the consolidated financial statements at December 31, 2022.

Annual improvements to the IFRSs (2018–2020 cycle)

- **Amendment to IFRS 9 - Fees included in the 10 per cent test for derecognition of financial liabilities**

  This change establishes the commission to be included in the 10 per cent test for derecognition of financial liabilities (in the event of a change or exchange of a financial liability, IFRS 9 Financial instruments specifies a quantitative "10 per cent" test. This test assesses if the new contractual conditions between the borrower and creditor are substantively different from the original contractual conditions in determining whether or not the original financial liability should be derecognized.

  Costs or commissions may be paid to third parties or to the creditor. In accordance with the change, the costs or commissions paid to third parties will not be included in the 10 per cent test.

- **Amendment to the illustrative examples accompanying IFRS 16 "Leases"**
  The Board has amended Illustrative Example 13 that accompanies IFRS 16 to remove the illustration of the reimbursement of leasehold improvements by the lessor. The reason for the amendment is to remove any potential confusion regarding how lease incentives should be processed.

- **Amendment to IFRS 1 "First-time adoption of the International Financial Reporting Standards"**
  The amendment simplifies the adoption of IFRS 1 by a subsidiary that becomes a first-time adopter after its parent. IFRS 1 grants an exemption if a subsidiary adopts the IFRSs later than its parent. The subsidiary can measure its assets and liabilities at the carrying amounts that would be included in the consolidated financial statements of the parent, on the basis of the date of transfer of the parent company to the IFRSs, if no adjustments are made for the consolidation procedures and as a result of the corporate aggregation in which the parent acquired the subsidiary.

  The Board has amended IFRS 1 to allow entities that adopted this exemption from IFRS 1 to also measure the cumulative conversion differences using the amounts reported by the parent, on the basis of the transition date of the parent company to the IFRSs. The change to IFRS 1 extends this exemption to the cumulative conversion differences in order to reduce the costs for first-time adopters. This change will also apply to associates and joint ventures that have obtained the same exemption from IFRS 1.

All these changes are in force starting January 1, 2022 with early application permitted.

The adoption of these amendments had no effect on the consolidated financial statements at December 31, 2022.

New Standards and Interpretations issued by IASB but not yet applicable

At the date of preparation of these consolidated financial statements, the IASB had issued the following new Standards and Interpretations which have not yet come into force and have not yet been endorsed by the EU:

	Mandatory application starting from
New Standards and Interpretations not yet endorsed by the EU	
Amendments to IAS 1 Presentation of Financial Statements: classification of liabilities as current or non-current	1/1/2024
Amendments to IFRS 16: Lease liabilities in a sale and lease-back	1/1/2024
Amendments to IAS 1 Presentation of Financial Statements: non-current liabilities with covenants	1/1/2024
New Standards and Interpretations endorsed by the EU	
Amendments to IAS 8 - Accounting Policies, Changes in Accounting Estimates and Errors	1/1/2023
Amendments to IAS 12 Income taxes: deferred tax related to assets and liabilities arising from a single transaction	1/1/2023
Amendments to IAS 1 - Presentation of Financial Statements	1/1/2023
Amendments to IFRS 17 - Insurance contracts: initial application of IFRS 17 and IFRS 19 - Comparative information	1/1/2023

The potential impacts on the Group consolidated financial statements from the application of these standards and interpretations are currently being assessed.

NOTE 3
SCOPE OF CONSOLIDATION

Investments in consolidated subsidiaries

Composition of the Group

TIM holds a majority of the voting rights in all the subsidiaries included in the scope of consolidation.
A complete list of consolidated subsidiaries is provided in the Note "List of companies of the TIM Group".

Scope of consolidation

The changes in the scope of consolidation at December 31, 2022 compared to December 31, 2021 are listed below.

Entry/exit/merger of subsidiaries into/out of the scope of consolidation:

Company		Business Unit	Month
Entry:			
COZANI RJ INFRAESTRUTURA E REDE DE TELECOMUNICAÇÕES S.A.	New acquisition	Brazil	April 2022
MINDICITY S.r.l. Società Benefit	New acquisition	Domestic	May 2022
MOVENDA S.p.A.	Increase in share held	Domestic	July 2022
Exit:			
DAPHNE 3 S.p.A.	Dilution	Domestic	August 2022
Mergers:			
MOVENDA S.p.A.	Merged into TIM S.p.A.	Domestic	December 2022

The breakdown by number of subsidiaries, associates and joint ventures of the TIM Group is as follows:

Companies:		12/31/2022	
	Italy	Outside Italy	Total
subsidiaries consolidated line-by-line	20	46	66
joint ventures accounted for using the equity method	2	—	2
associates accounted for using the equity method	12	1	13
Total companies	**34**	**47**	**81**

Companies:		12/31/2021	
	Italy	Outside Italy	Total
subsidiaries consolidated line-by-line	20	45	65
joint ventures accounted for using the equity method	2	—	2
associates accounted for using the equity method	12	1	13
Total companies	**34**	**46**	**80**

Further details are provided in the Note "List of companies of the TIM Group".

Subsidiaries with a significant non-controlling interest

At December 31, 2022, the TIM Group held investments in subsidiaries, with significant non-controlling interest, in relation to the companies FiberCop S.p.A. and the TIM Brazil group.

The figures provided below, stated before the netting and elimination of intragroup accounts, comply with IFRS and reflect adjustments made at the acquisition date to align the assets and liabilities acquired to their fair value.

FiberCop S.p.A. - Domestic Business Unit

Non-controlling interest accounted at December 31, 2022 for 42.0% of the capital of FiberCop S.p.A., coinciding with the corresponding voting rights.

FiberCop S.p.A. - financial position data

(million euros)	12/31/2022	12/31/2021
Non-current assets	9,187	8,441
Current assets	515	471
Total Assets	**9,702**	**8,912**
Non-current liabilities	3,376	3,293
Current liabilities	800	551
Total Liabilities	**4,176**	**3,844**
Equity	**5,526**	**5,068**
of which Non-Controlling Interests	*2,321*	*2,129*

FiberCop S.p.A. - income data

(million euros)	2022	2021
Revenues	1,344	978
Profit (loss) for the year	**458**	**321**
of which Non-Controlling Interests	*192*	*135*

FiberCop S.p.A. - financial data

Aggregate cash flows generated in 2022 amounted to -37 million euros (in 2021: +75 million euros).

TIM Brasil group – Brazil Business Unit

Non-controlling interest accounted at December 31, 2022 for 33.4% of the capital of TIM S.A., coinciding with the corresponding voting rights.

Financial position data TIM Brasil group

(million euros)	12/31/2022	12/31/2021
Non-current assets	8,649	5,787
Current assets	1,925	2,476
Total Assets	**10,574**	**8,263**
Non-current liabilities	3,157	2,159
Current liabilities	2,420	1,751
Total Liabilities	**5,577**	**3,910**
Equity	**4,997**	**4,353**
of which Non-Controlling Interests	*1,545*	*1,345*

Income statement data TIM Brasil group

(million euros)	2022	2021
Revenues	3,963	2,840
Profit (loss) for the year	**289**	**455**
of which Non-Controlling Interests	*102*	*155*

Financial data of the TIM Brasil group

Aggregate cash flows generated in 2022 amounted to -369 million euros, with a negative exchange rate effect of 45 million euros.

In 2021, this was positive for 416 million euros, with a positive exchange rate difference of 6 million euros.

Finally, with regard to the subsidiaries with significant minority interests, in line with the information provided in the Report on Operations - “Main risks and uncertainties” section, the main risk factors that could lead, even significantly, to restrictions on the operations of the TIM Brasil group are listed below:

- Strategic risks (risks related to macroeconomic and political factors, as well as risks associated with foreign exchange restrictions and competition);
- Operational risks (risks related to business continuity and development of the fixed and mobile networks, as well as risks related to disputes and litigation);
- Financial risks;
- Regulatory and Compliance risks.

NOTE 4
BUSINESS COMBINATIONS

Acquisition of the mobile telephone assets of Oi Móvel S.A.

On April 20, 2022, TIM S.A. (Brazilian subsidiary of the TIM Group), Telefônica Brasil S.A. and Claro S.A., after having fulfilled the conditions established by the Conselho Administrativo de Defesa Econômica (CADE) and the Agência Nacional de Telecomunicações (ANATEL), concluded the acquisition of the mobile telephone assets of Oi Móvel S.A. - Em Recuperação Judicial.

With the conclusion of the transaction, TIM S.A. now holds 100% of the share capital of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A., a company that corresponds to part of the assets, rights and obligations of Oi Móvel acquired by the company.

The business combination was recognized in the accounts as follows:

- a consideration of 1,373 million euros;
- all Assets acquired and Liabilities undertaken of the acquired companies were measured for recognition at fair value;

- in addition to the value of the Assets acquired and Liabilities undertaken, Goodwill equal to 502 million euros was recognized, determined as shown in the next table:

		Values at fair value (million euros) (*)	Values at fair value (million Brazilian reais)
Valuation of the consideration	**(a)**	**1,373**	**7,212**
Value of assets acquired	**(b)**	1,629	8,559
Value of liabilities undertaken	**(c)**	(758)	(3,983)
Goodwill	**(a–b-c)**	**502**	**2,636**

(*) real/euro exchange rate 5.25403

Cozani RJ Infraestrutura e Rede de Telecomunicações S.A.– values at the acquisition date

		Present values at fair value (million euros)(*)	Carrying amounts	Present values at fair value (million Brazilian reais)	Carrying amounts
Goodwill		502	—	2,636	—
Other non-current assets		1,489	862	7,825	4,532
Current assets		140	140	734	734
of which Cash and cash equivalents		*37*	*37*	*193*	*193*
Total assets	**(a)**	**2,131**	**1,002**	**11,195**	**5,266**
Total non-current liabilities		549	549	2,886	2,886
Of which Non-current financial liabilities		*459*	*459*	*2,413*	*2,413*
Total current liabilities		209	209	1,097	1,097
Of which Current financial liabilities		*98*	*98*	*517*	*517*
Total liabilities	**(b)**	**758**	**758**	**3,983**	**3,983**
Net assets	**(a-b)**	**1,373**	**244**	**7,212**	**1,283**

(*) real/euro exchange rate 5.25403

It should be noted that in September 2022, TIM S.A. and the other buyers of the Oi Móvel S.A. mobile telephone assets had identified differences in the assumptions and calculation criteria that, under the terms of the Share Purchase Agreement and Other Covenants ("SPA"), justify a proposal to change the Adjusted Closing Price ("ACP") by TIM S.A. of approximately 1.4 billion reais. In addition to differences relating to the Adjusted Closing Price, others have also been identified relating to the contracts of Cozani with companies supplying mobile infrastructure services (site/tower rental), which, under the terms of the "SPA", give rise to indemnity by the Seller in TIM S.A.'s favor, of approximately 231 million reais. As a result of the differences found, TIM S.A. retained an amount of 634 million reais (671 million reais at December 31, 2022).

In October 2022, considering the Seller's express violation of the dispute resolution mechanisms provided for in the SPA, TIM S.A. communicated that the Buyers had no other alternative but to file an arbitration procedure with the Market Arbitration Chamber (Câmara de Arbitragem do Mercado) of B3 S.A. - Brasil, Bolsa, Balcão against the Seller to determine the effective amount of the adjustment to the Adjusted Closing Price, in accordance with the SPA.

Additionally, in October 2022, the 7th Business Court of the Judicial District of Rio de Janeiro handed down a preliminary decision, determining the deposit in court by the Buyers of approximately 1.53 billion reais – of which approximately 670 million reais by TIM S.A. – in an account linked to the court-ordered reorganization process of Oi, where it will be safeguarded until a later decision by the arbitration court.

Further details are provided in the Note "Disputes and Pending Legal Actions, other information, commitments and guarantees".

It should also be noted that:

- if the acquisition of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A. had been completed on January 1, 2022, the consolidated financial statements of the TIM Group as at December 31, 2022 would have recorded revenues approximately 120 million euros higher, with an impact of approximately -170 million euros on the net result for the period attributable to the Owners of the Parent Company;

- on February 27, 2023, the TIM S.A. Board of Directors approved the terms and conditions of the merger, by the company, of Cozani RJ Infraestrutura e Redes de Telecomunicações S.A..

NOTE 5
GOODWILL

Goodwill shows the following breakdown and changes for 2021 and 2022:

(million euros)	12/31/2020	Increase	Decrease	Impairments	Exchange differences	12/31/2021
Domestic	**22,242**	2		(4,120)		**18,124**
Brazil	**605**		(165)		4	**444**
Other Operations	—					—
Total	**22,847**	**2**	**(165)**	**(4,120)**	**4**	**18,568**

(million euros)	12/31/2021	Increase	Decrease	Impairments	Exchange differences	12/31/2022
Domestic	**18,124**	10				**18,134**
Brazil	**444**	502			31	**977**
Other Operations	—					—
Total	**18,568**	**512**	**—**	**—**	**31**	**19,111**

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's consolidated financial statements.

In 2022, Goodwill increased by 543 million euros, from 18,568 million euros at the end of 2021 to 19,111 million euros at December 31, 2022.

With reference to the Brazil Cash Generating Unit (Brazil CGU), Goodwill recorded:

- an increase of 502 million euros (2,636 million reais) relating to the recognition of goodwill connected with the acquisition of some of the mobile telephone assets of Oi Móvel S.A. For more details, see the note "Business combinations";
- net exchange gains for 31 million euros. In particular, the exchange rate used to convert Brazilian reais into euros (expressed in terms of local currency units per 1 euro) went from 6.32047 as of December 31, 2021 to 5.56520 as of December 31, 2022.

The Goodwill of the Domestic Cash Generating Unit (Domestic CGU) increased by a total of 10 million euros in connection with the acquisition of control over the companies Staer Sistemi S.r.l., Mindicity S.r.l. and Movenda S.p.A.

The gross carrying amounts of Goodwill and the related accumulated impairment losses from January 1, 2004 (date of allocation to the Cash-Generating Units – CGUs) to December 31, 2022 and 2021 can be summarized as follows:

	12/31/2022			12/31/2021		
(million euros)	Gross carrying amount	Accumulated impairment losses	Net carrying amount	Gross carrying amount	Accumulated impairment losses	Net carrying amount
Domestic	38,699	(20,565)	**18,134**	38,689	(20,565)	**18,124**
Brazil	1,143	(166)	**977**	591	(147)	**444**
Other Operations	—	—	—	—	—	—
Total	**39,842**	**(20,731)**	**19,111**	**39,280**	**(20,712)**	**18,568**

The figures for the Brazil CGU are stated in euros, converted at the spot exchange rate at the closing date of the financial statements; the carrying amount of goodwill for the CGU corresponds to 5,439 million reais at December 31, 2022 (2,803 million reais at December 31, 2021). The increase of 2,636 million reais relates to the specified posting of goodwill connected with the acquisition of part of the Oi Móvel S.A. mobile assets.

The impairment test was carried out on two levels. At a first level, the recoverable amount of the assets attributed to the individual CGUs to which goodwill is allocated was estimated; at a second level, considering the Group's activities as a whole.

The cash generating units (or groups of units) to which goodwill is allocated are as follows:

Segment	**Cash-Generating Units (or groups of units)**
Domestic	Domestic
Brazil	Brazil

According to the applicable accounting rules, the “recoverable value” of the CGUs was equal to the higher of “fair value net of disposal costs” and “value in use”.

At December 31, 2022, the value configuration used to determine the recoverable amount of the Domestic CGU - continuing on with the configuration used for the financial statements closed at December 31, 2021 - was the Fair Value estimated on the basis of the income approach, insofar as this is considered able to best maximize the value of the Group’s activities (the “market participant perspective”), also reflecting interventions on costs in view of a potential future new, different business structure.

For the Brazil CGU, the value configuration used is the fair value on the basis of market capitalization at the end of the period.

The values are expressed in local currency, and hence in EUR for the Domestic CGUs and BRL for the Brazil CGU. For the Brazil CGU, the recoverable amount of the assets was denominated in the functional currency and subsequently translated at the spot exchange rate at the reporting date.

For the Domestic CGU, the estimate of fair value on the basis of the income approach was made in compliance with IAS 36, with valuation principles and best practices, with reference to the flows of the 2023-2025 Industrial Plan, which is based on the final results of 2022: (i) it reflects realistic expectations regarding future evolutions; (ii) it brings into play careful cost cutting actions as preparation for the future business structure; (iii) it maintains the perspective of use of assets of the domestic market continuing on with the same conditions as at 12/31/2022. The expected cash flows reported in the 2023-2025 Industrial Plan approved by the Board of Directors have been critically analyzed and, with the support of expert appraisers and industry experts, the average representativity has been assessed. Expected average cash flows for the 2023-2025 Industrial Plan were extrapolated for an additional two years, thus bringing the explicit forecast period for future cash flows to a total of five years (2023-2027). The extrapolation of data for 2026-2027 was necessary, in line with that carried out by the main European incumbents, in order to intercept market, competition and industrial trends that will become manifest beyond the forecast horizon of the Industrial Plan. It is specified that where inputs are present that cannot be observed, the fair value thus determined is assigned as level 3 of the fair value hierarchy, as envisaged by IFRS 13 - Fair value measurement.

The estimation of the fair value according to the income approach requires the determination of the current value of income beyond the explicit forecast period (“terminal value”). To this end, the sustainable long-term cash flow was assumed to be the extrapolation of the estimated cash flow at 2027, adjusted as necessary to take into consideration a suitable level of long-term capital expenditure, normalized by the effects tied to the development of innovative technology projects in place during the plan years. Furthermore, with specific reference to the incremental share of the value deriving from 5G license use and therefore from the development of new and innovative business areas, a measurement model has been adopted that takes into account the net incremental flows for a defined period of time which is based on the duration of the license. This approach is consistent with the need to include in the configuration of value, on one hand the outflows deriving from the capex to support its development (as per the Industrial Plan), and on the other the positive net flows from the incremental business component of the license acquisition that will develop over a broad period of time and over the five years of explicit forecast.

The cost of capital used to discount the future cash flows in the estimates of fair value for the Domestic CGU:

- was estimated using the Capital Asset Pricing Model (CAPM), which is one of the generally accepted application criteria referred to in IAS 36;
- reflects current market estimates of the time value of money and the specific risks associated with the asset groups; includes appropriate yield premiums for country risk;
- was calculated using comparative market parameters to estimate the “Beta coefficient” and the weighting coefficient of the equity and debt capital components;

For the Domestic CGU it was as follows:

- the weighted average cost of capital (WACC rate) used to discount the future cash flows and the equivalent rate before tax;
- details are also provided of the growth rate used to estimate the residual value after the explicit forecast period (the G-Rate), expressed in nominal terms and related to the cash flows in their functional currency;
- details are provided of the implicit capitalization rates resulting from the difference between the cost of capital, after tax, and the G-Rate.

Principal parameters for the estimates of fair value

	Domestic
WACC	6.20%
WACC before tax	7.89%
Growth rate beyond the explicit period (g)	1.09%
Capitalization rate after tax (WACC-g)	5.11%
Capitalization rate before tax (WACC-g)	6.80%
Capex/Revenues, perpetual	15.50%

The growth rate in the terminal value "g" of the Domestic CGU was estimated taking into account the expected evolution of demand for the various business areas, overseen in terms of investments and competences also by the subsidiaries Noovle and FiberCop. The growth rate thus estimated falls within the range of growth rates applied by analysts who monitor TIM shares.

The phase of capital expenditure, competitive positioning and the technological infrastructure operated was taken into account in estimating the level of investment needed to sustain the perpetual development of cash flows after the explicit forecast period.

The recoverable amount of the Domestic cash generating unit, determined on the basis of the Fair Value estimated on the basis of the income approach, highlighted headroom of 1,187 million euros.

The difference between the recoverable amounts and the net carrying amounts of the CGUs considered totaled:

(million euros)	Domestic	Brazil
Difference between recoverable and net carrying amounts	+1,187	+217

Therefore, in light of all the foregoing, in FY 2022, the Goodwill values recognized in the financial statements relating to the Domestic CGU (positive difference of +1,187 million euros) and the Brazil CGU (positive difference of +217 million euros) are confirmed.

In relation to the Domestic CGU, a structural deterioration of the relevant parameters and, notably, the WACC, may call for the application of impairment. In detail, in accordance with IAS 36, the sensitivity analysis has been performed aiming to identify the change in key variables (WACC, margins as seen by the ratio of gross operating margin and revenues, growth rate of income in terminal value), which makes the recoverable amount equal to the carrying amount. This analysis shows that:

- an increase in costs such as to lower the margins (= gross operating margin/revenues) of 0.67%; or
- a 0.15% rise in the WACC (at the value of 6.35%); or
- a growth rate of income in terminal value of 0.92%;

would align the recoverable amount with the carrying amount.

With regard to the Brazilian CGU, the change in the price per share, compared to the reference quotation considered for the purposes of the financial statements, which would make the recoverable value equal to the carrying amount is equal to -4.07%.

The second level impairment test revealed a recoverable amount that exceeded the book value of the Group's business as a whole, thereby not showing any need for impairment.

NOTE 6

INTANGIBLE ASSETS WITH A FINITE USEFUL LIFE

This item increased by 509 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Investments	Amortization	Impairment (losses) / reversals	Disposals	Exchange differences	Other changes	12/31/2021
Industrial patents and intellectual property rights	**1,789**	731	(1,043)			4	452	**1,933**
Concessions, licenses, trademarks and similar rights	**3,645**	191	(466)			6		**3,376**
Other intangible assets	**4**	1	(2)					**3**
Work in progress and advance payments	**1,302**	963			(3)	3	(430)	**1,835**
Total	**6,740**	**1,886**	**(1,511)**	**—**	**(3)**	**13**	**22**	**7,147**

(million euros)	12/31/2021	Investments	Amortization	Impairment (losses)/reversals	Disposals	Exchange differences	Capitalized borrowing costs	Other changes	12/31/2022
Industrial patents and intellectual property rights	**1,933**	731	(1,069)		(1)	53		338	**1,985**
Concessions, licenses, trademarks and similar rights	**3,376**	85	(442)		(1)	70		1,555	**4,643**
Other intangible assets	**3**	2	(6)			(2)		48	**45**
Work in progress and advance payments	**1,835**	310				54	48	(1,264)	**983**
Total	**7,147**	**1,128**	**(1,517)**	**—**	**(2)**	**175**	**48**	**677**	**7,656**

Investments in 2022 amounted to 1,128 million euros (1,886 million euros in 2021) and included 244 million euros in internally generated assets (216 million euros in 2021). Further details are provided in the Note "Internally generated assets".

Industrial patents and intellectual property rights at December 31, 2022, essentially consist of the plant operation and application software purchased outright and user license, amortized over a period between 2 and 6 years and relating mainly to TIM S.p.A. (1,301 million euros), the Brazil Business Unit (438 million euros) and Noovle S.p.A. (142 million euros).

Concessions, licenses, trademarks and similar rights at December 31, 2022 mainly refer to the residual cost of telephone licenses and similar rights (3,316 million euros for TIM S.p.A. and 1,268 million euros for the Brazil Business Unit). Compared with December 31, 2021, the item increased by 1,267 million euros, mainly due to:

- entry into the consolidation scope of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A. (633 million euros);
- entry into force of the rights to use the 2100 MHz bandwidth of TIM S.p.A., which in 2021 was extended until December 31, 2029 (240 million euros);
- entry into force of the 5G user rights to the 694-790 MHz bandwidths of TIM S.p.A. (680 million euros);
- acquisition by TIM S.p.A. of the licenses for the 34-36 MHz OpNet bandwidth, acquired with an agreement with the OpNet (former Linkem) operator covering the reciprocal transfer of frequencies and enabled TIM S.p.A. to use an additional 20MHz nationally, reaching the maximum availability of 100MHz permitted in the frequency bandwidth 3.4-3.8 GHz usable by TIM, as 5G frequencies.

The residual amount of telephone licenses and similar rights in operation at December 31, 2022 (4,584 million euros) and their useful lives are detailed below:

Type	Residual value at 12/31/2022 (million euros)	Useful life (years)	Maturity	Amortization expense for the year 2022 (million euros)
TIM S.p.A.:				
UMTS 2100 MHz (extension)	210	8	12/31/2029	30
WiMax (extension)	5	7	12/31/2029	1
34-36 MHz band Linkem	61	7	12/31/2029	4
LTE 1800 MHz	60	18	12/31/2029	9
LTE 800 MHz	420	17	12/31/2029	60
LTE 2600 MHz	46	17	12/31/2029	7
1452-1492 MHz band	116	14	12/31/2029	16
900 and 1800 MHz band	383	11	12/31/2029	55
3600-3800 MHz band (5G)	1,331	19	12/31/2037	89
26.5-27.5 GHz band (5G)	26	19	12/31/2037	2
694-790 MHz band (5G)	658	15 years and 6 months	12/31/2037	22
TIM Brasil group:				
GSM and 3G (UMTS) - TIM S.A.	21	15	From 2023 to 2031	24
4G (LTE - 700 MHz) -TIM S.A.	496	15	2029	74
5G (2.3 GHz and 26 GHz) - TIM S.A.	200	20	2041	14
900 - 1800 -1900 - 2100 - 2500 MHz - Cozani	551	15-18	From 2027 to 2038	28

Work in progress and advance payments mainly relate to:

- the Brazil Business Unit (530 million euros) connected with the rights to use 3.5 GHz frequencies (5G). For the latter, as the time period required for the assets to be ready for use is more than 12 months, in 2022 the related finance expenses of 48 million euros were capitalized. The capitalized finance expenses have been deducted directly from "finance expense";
- the Domestic Business Unit (453 million euros), essentially related to software developments and investments for the digital evolution of Network Infrastructures.

The item also includes work in progress mainly related to software developments and investments for the digital evolution of Network Infrastructures.

Amortization and impairment losses have been recorded in the income statement as components of EBIT.

The gross carrying amount, accumulated impairment losses and accumulated amortization at December 31, 2022 and December 31, 2021 can be summarized as follows:

(million euros)	12/31/2021			
	Gross carrying amount	Accumulated impairment losses	Accumulated amortization	Net carrying amount
Industrial patents and intellectual property rights	11,605	—	(9,672)	1,933
Concessions, licenses, trademarks and similar rights	8,304	—	(4,928)	3,376
Other intangible assets	464	—	(461)	3
Work in progress and advance payments	1,835	—	—	1,835
Total intangible assets with a finite useful life	**22,208**	**—**	**(15,061)**	**7,147**

(million euros)	12/31/2022			
	Gross carrying amount	Accumulated impairment losses	Accumulated amortization	Net carrying amount
Industrial patents and intellectual property rights	12,847	—	(10,862)	1,985
Concessions, licenses, trademarks and similar rights	7,784	—	(3,141)	4,643
Other intangible assets	563	—	(518)	45
Work in progress and advance payments	983	—	—	983
Total intangible assets with a finite useful life	**22,177**	**—**	**(14,521)**	**7,656**

With reference to the gross values, in 2022 the parent company TIM S.p.A. made disposals of 3,125 million euros in connection with licenses (UMTS licenses for 2,506 million euros and GSM licenses for 117 million euros expired and sale of WiMax licenses to OpNet for 6 million euros) and rights to use intellectual works, almost entirely amortized, including BSS and OSS software application developments for 471 million euros, television rights expired for 16 million euros and the Sandvine platform for 6 million euros.

NOTE 7
TANGIBLE ASSETS

Property, plant and equipment owned

This item increased by 789 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Investments	Depreciation	Impairment (losses) / reversals	Disposals	Exchange differences	Other changes	12/31/2021
Land	**229**	2					1	**232**
Buildings (civil and industrial)	**577**	23	(35)				32	**597**
Plant and equipment	**11,206**	1,885	(2,095)		(30)	21	267	**11,254**
Manufacturing and distribution equipment	**22**	4	(9)				2	**19**
Other	**309**	121	(145)			1	81	**367**
Construction in progress and advance payments	**798**	630				2	(588)	**842**
Total	**13,141**	**2,665**	**(2,284)**	**—**	**(30)**	**24**	**(205)**	**13,311**

(million euros)	12/31/2021	Investments	Depreciation	Impairment (losses)/ Reversals	Disposals	Exchange differences	Other changes	12/31/2022
Land	**232**				(1)	1		**232**
Buildings (civil and industrial)	**597**	34	(37)			1	56	**651**
Plant and equipment	**11,254**	2,198	(2,145)		(28)	202	521	**12,002**
Manufacturing and distribution equipment	**19**	7	(8)				2	**20**
Other	**367**	105	(158)		(1)	13	36	**362**
Construction in progress and advance payments	**842**	484			(3)	11	(501)	**833**
Total	**13,311**	**2,828**	**(2,348)**	**—**	**(33)**	**228**	**114**	**14,100**

Land comprises both built-up land and available land and is not subject to depreciation. The figure at December 31, 2022 refers primarily to TIM S.p.A. (187 million euros) and Noovle (33 million euros).

Buildings (civil and industrial) mainly includes buildings for industrial use hosting telephone exchanges, or for office use and light constructions. The balance at December 31, 2022 is mainly attributable to TIM S.p.A. (425 million euros) and Noovle S.p.A. (199 million euros).

Plant and machinery includes the technological infrastructure used for the provision of telecommunications services (transport and distribution of voice/data traffic). The figure at December 31, 2022 is mainly attributable to TIM S.p.A. (5,552 million euros), to FiberCop S.p.A. (4,114 million euros) and to the Brazil Business Unit (1,927 million euros).

Manufacturing and distribution equipment consists of instruments and equipment used for the operation and maintenance of plant and equipment and refers mainly to TIM S.p.A..

Other mainly consists of hardware for the functioning of the network and for work stations, furniture and fixtures and, to a minimal extent, transport vehicles and office machines.

Construction in progress and advance payments refer to the internal and external costs incurred for the acquisition and internal production of tangible assets, which are not yet in use.

2022 investments include 315 million euros of internally generated assets (259 million euros in 2021); further details are provided in the Note “Internally generated assets”.

Depreciation, impairment losses and reversals have been recorded in the income statement as components of EBIT.

Depreciation for the years 2022 and 2021 was calculated on a straight-line basis over the estimated useful lives of the assets according to the following minimum and maximum rates:

Buildings (civil and industrial)	2% - 6.66%
Plant and equipment	3% - 50%
Manufacturing and distribution equipment	15% - 20%
Other	10% - 50%

Other changes include 112 million euros related to the entrance into the consolidation scope of the mobile telephone assets of Oi Móvel S.A. acquired by the TIM Group in April 2022. For further details, see the note "Business combinations".

The gross carrying amount, accumulated impairment losses and accumulated depreciation at December 31, 2022 and December 31, 2021 can be summarized as follows:

(million euros)	12/31/2021			
	Gross carrying amount	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Land	235	(3)		232
Buildings (civil and industrial)	1,960	—	(1,363)	597
Plant and equipment	70,535	(12)	(59,269)	11,254
Manufacturing and distribution equipment	330	(1)	(310)	19
Other	3,305	(2)	(2,936)	367
Construction in progress and advance payments	844	(2)		842
Total	**77,209**	**(20)**	**(63,878)**	**13,311**

(million euros)	12/31/2022			
	Gross carrying amount	**Accumulated impairment losses**	**Accumulated depreciation**	**Net carrying amount**
Land	235	(3)		232
Buildings (civil and industrial)	2,051	—	(1,400)	651
Plant and equipment	73,824	(12)	(61,810)	12,002
Manufacturing and distribution equipment	338	(1)	(317)	20
Other	3,725	(2)	(3,361)	362
Construction in progress and advance payments	834	(1)		833
Total	**81,007**	**(19)**	**(66,888)**	**14,100**

With regard to the gross amounts, in 2022 the parent company TIM S.p.A. made disposals for a total value of 1,294 million euros, mainly in relation to fully depreciated assets, including: UMTS transmission plants and network transmission devices (1,081 million euros), infrastructures and GSM base transceiver stations (63 million euros), switching systems (52 million euros), rented terminals (32 million euros), access network (29 million euros), power supply and conditioning systems (13 million euros), underground fiber optic (9 million euros), aerials and cable laying (7 million euros), civil buildings (2 million euros).

NOTE 8
RIGHTS OF USE ASSETS

This item increased by 641 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Investments	Increases in lease contracts	Depreciation and amortization	Disposals	Exchange differences	Other changes	12/31/2021
Property	**2,911**	35	298	(343)	(14)	4	(43)	**2,848**
Plant and equipment	**1,909**	25	328	(314)	(5)	11	(107)	**1,847**
Other tangible assets	**121**		35	(37)	(2)		2	**119**
Construction in progress and advance payments	**51**	19	2				(42)	**30**
Intangible assets			4	(1)				**3**
Total	**4,992**	**79**	**667**	**(695)**	**(21)**	**15**	**(190)**	**4,847**

(million euros)	12/31/2021	Investments	Increases in lease contracts	Depreciation and amortization	Disposals	Exchange differences	Other changes	12/31/2022
Property	**2,848**	35	347	(398)	(4)	35	104	**2,967**
Plant and equipment	**1,847**	53	462	(474)	(2)	108	376	**2,370**
Other tangible assets	**119**		23	(38)	(3)		1	**102**
Construction in progress and advance payments	**30**	25					(20)	**35**
Intangible assets	**3**	8		(2)			5	**14**
Total	**4,847**	**121**	**832**	**(912)**	**(9)**	**143**	**466**	**5,488**

2022 capital expenditures mainly refer to the Domestic Business Unit and are essentially related to the acquisition of IRU transmission capacity and improvements and incremental expenses incurred on leased property and non-property assets.

The increases in finance leasing contracts in 2022, equal to 832 million euros, refer to the Brazil Business Unit (484 million euros) and the Domestic Business Unit (348 million euros).

These increases include the higher value of the rights of use recorded as a result of new leases, increases of lease payments and renegotiations of agreements existing both land and buildings for office use and industrial relationship over time, to infrastructure sites for the mobile telephone network infrastructure and network.

Amortization and impairment losses have been recorded in the income statement as components of EBIT.

The disposals are representative of the carrying amount of the assets from lease agreements that terminated early.

Other changes refer mainly to the entrance into the consolidation scope of the mobile telephone assets of Oi Móvel S.A. (558 million euros) and also include the start-up and changes connected with the lesser value of the rights of use recorded as a result of contractual changes during the period.

Property includes buildings and land under passive leases and the related building adaptations, attributable to the Domestic Business Unit (2,422 million euros) and the Brazil Business Unit (545 million euros).

Plant and equipment mainly includes rights of use on infrastructures for telecommunications services. These refer to the Brazil Business Unit (1,436 million euros), the Parent Company TIM S.p.A. (637 million euros), the Telecom Italia Sparkle group (156 million euros) and FiberCop S.p.A. (140 million euros). This includes, inter alia, the recognition of the value of the telecommunications towers sold by the TIM Brasil group to American Tower do Brasil and subsequently repurchased in the form of a finance lease.

Other tangible assets mainly comprises the leases on motor vehicles. In addition, the right of use for the lease of the business unit relating to all the assets organized for the full performance of the "construction", "delivery" and "assurance" activities for telecommunications networks and equipment, deriving from the contract entered into between TIM Servizi Digitali S.p.A. and Sittel S.p.A., is recorded herein (15 million euros). The corresponding finance lease liability for the obligation to comply with the contractual payments is recorded against the right of use.

Intangible assets mainly includes Telecom Italia Sparkle rights of use of transmission frequencies on optic fiber carriers not illuminated by the undersea cable Monet and the recording as a lease of a Software as a Service (SaaS) contract, in respect of which the Parent Company TIM S.p.A. has acquired the right to make exclusive use of software licenses residing on partitions of third party hardware platforms dedicated exclusively to the Company.

The gross carrying amount, accumulated impairment losses and accumulated amortization at December 31, 2022 and December 31, 2021 can be summarized as follows:

(million euros)	12/31/2021			
	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Property	5,327	(13)	(2,466)	2,848
Plant and equipment	3,304	(277)	(1,180)	1,847
Other	291		(172)	119
Construction in progress and advance payments	30			30
Intangible assets	4	—	(1)	3
Total	**8,956**	**(290)**	**(3,819)**	**4,847**

(million euros)	12/31/2022			
	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Property	5,811	(13)	(2,831)	2,967
Plant and equipment	4,340	(278)	(1,692)	2,370
Other	272		(170)	102
Construction in progress and advance payments	35			35
Intangible assets	17	—	(3)	14
Total	**10,475**	**(291)**	**(4,696)**	**5,488**

Impairment losses on "Plant and equipment", mainly relating to prior years, refers to the Indefeasible Rights of Use (IRU) for the transmission capacity and cables for international connections acquired by the Telecom Italia Sparkle group.

With reference to the gross values, in 2022 the Parent Company TIM S.p.A. carried out disposals for a total value of 85 million euros, essentially relating to leased properties (34 million euros), leased vehicles (25 million euros), base transceiver stations (16 million euros) and leasehold improvements (9 million euros).

NOTE 9
INVESTMENTS

Investments in associates and joint ventures accounted for using the equity method

Investments in associates and joint ventures accounted for using the equity method are reported below in detail:

(million euros)		12/31/2022	12/31/2021
I-Systems S.A.		277	253
Daphne 3 S.p.A.		212	—
Italtel S.p.A.		9	—
NordCom S.p.A.		6	6
W.A.Y. S.r.l.		4	4
QTI S.r.l		3	2
Satispay S.p.A.		—	20
Other		2	3
Total Associates	**(a)**	**513**	**288**
INWIT S.p.A.		—	2,669
TIMFin S.p.A.		21	22
Polo Strategico Nazionale S.p.A.		5	
Total Joint Ventures	**(b)**	**26**	**2,691**
Total investments accounted for using the equity method	**(a+b)**	**539**	**2,979**

The changes in this item are broken down as follows:

(million euros)	12/31/2020	Investments	Disposals and reimbursements of capital	Valuation using equity method	Other changes	12/31/2021
I-Systems S.A.				(2)	255	253
Satispay S.p.A.		20				20
NordCom S.p.A.	5			1		6
W.A.Y. S.r.l.	4					4
QTI S.r.l		2				2
Tiglio I S.r.l.	1		(1)			—
Other	3	1			(1)	3
Total Associates	**13**	**23**	**(1)**	**(1)**	**254**	**288**
INWIT S.p.A.	2,713			(44)		2,669
TIMFin S.p.A.	2	24		(4)		22
Total Joint Ventures	**2,715**	**24**	**—**	**(48)**	**—**	**2,691**
Total investments accounted for using the equity method	**2,728**	**47**	**(1)**	**(49)**	**254**	**2,979**

(million euros)	12/31/2021	Investments	Disposals and reimbursements of capital	Valuation using equity method	Other changes	12/31/2022
I-Systems S.A.	253			(11)	35	277
Daphne 3 S.p.A.				(57)	269	212
Italtel S.p.A.		10		(1)		9
NordCom S.p.A.	6					6
W.A.Y. S.r.l.	4					4
QTI S.r.l	2	1				3
Satispay S.p.A.	20		(20)			—
Other	3	—			(1)	2
Total Associates	**288**	**11**	**(20)**	**(69)**	**303**	**513**
INWIT S.p.A.	2,669			(59)	(2,610)	—
TIMFin S.p.A.	22			(1)		21
Polo Strategico Nazionale S.p.A.		5				5
Total Joint Ventures	**2,691**	**5**	**—**	**(60)**	**(2,610)**	**26**
Total investments accounted for using the equity method	**2,979**	**16**	**(20)**	**(129)**	**(2,307)**	**539**

Investments for 2022 include mainly:

- 10 million euros for the subscription, in April 2022, of a part of the capital increase of Italtel S.p.A., consequent to the reorganization process and company composition procedure approved by the Court of Milan in December 2021. At December 31, 2022, TIM Group's investment held in Italtel S.p.A. was 17.72% of the share capital.

  Italtel S.p.A. is also subject to the considerable influence of TIM S.p.A. in accordance with IAS 28 (Investments in Associates and Joint Ventures);
- 5 million euros for the assigned share (45%) under the scope of the establishment and subsequent recapitalization of Polo Strategico Nazionale S.p.A. The company deals with the design, preparation, fitting out and management of infrastructure for the supply of cloud services and solutions for the public administration.

"Valuation using the equity method" for 2022 mainly includes:

- for the equity investment in INWIT S.p.A., the portion, pertaining to the positive economic result of INWIT, including the greater amortization charge, at consolidated level, of the assets to which part of the greater value deriving from the corporate integration transaction of Vodafone Towers S.r.l. in INWIT (35 million euros) has been allocated and the reduction in the carrying amount of the equity investment for dividends received in the year (94 million euros);
- for the equity investment in Daphne 3 S.p.A., the reduction in the carrying amount of the equity investment for dividends received in the year (57 million euros).

Other changes for 2022 mainly include:

- the deconsolidation of the investment in INWIT - Infrastrutture Wireless Italiane consequent to the August 2022 sale of 41% of the share capital of the holding company Daphne 3 S.p.A and the consequent loss of control in the company. In turn, Daphne 3 S.p.A. holds a 30.2% share in INWIT;

- the entry of the residual equity investment in Daphne 3 S.p.A.(10% of the share capital). Daphne 3 S.p.A. is subject to the considerable influence of TIM S.p.A. in accordance with IAS 28 (Investments in Associates and Joint Ventures);
- the exchange differences connected with the investment in the related Brazilian company I-Systems S.A.

The list of **investments accounted for using the equity method** is presented in the Note "List of companies of the TIM Group".

Other investments in associates accounted for using the equity method of the TIM Group are not material either individually or in aggregate form.

Investments in structured entities

The TIM Group does not hold investments in structured entities.

Other investments

Other investments refer to the following:

(million euros)	12/31/2020	Investments	Disposals and reimbursements of capital	Valuation at fair value	Other changes	12/31/2021
Fin.Priv. S.r.l.	**16**			6		**22**
Northgate Telecom Innovations Partners L.P.	**25**	1		(9)		**17**
UV T-Growth		12				**12**
SECO S.p.A.		38		54		**92**
Other	**13**					**13**
Total	**54**	**51**	**—**	**51**	**—**	**156**

(million euros)	12/31/2021	Investments	Disposals and reimbursements of capital	Valuation at fair value	Other changes	12/31/2022
Fin.Priv. S.r.l.	**22**			(2)		**20**
Northgate Telecom Innovations Partners L.P.	**17**	3		(4)		**16**
UV T-Growth	**12**	8	(7)	(2)		**11**
SECO S.p.A.	**92**			(36)		**56**
Other	**13**					**13**
Total	**156**	**11**	**(7)**	**(44)**	**—**	**116**

More specifically, note that at December 31, 2022, the TIM Group had a subscription commitment for units:

- in the Northgate CommsTech Innovations Partners L.P. fund for 4.6 million USD, equal to approximately 4.3 million euros at the exchange rate as at December 31, 2022;
- of the UV T-Growth fund in the amount of 47.4 million euros.

As permitted by IFRS 9, TIM now measures Other Investments at “fair value through other comprehensive income (FVTOCI)”.

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

NOTE 10

NON-CURRENT AND CURRENT FINANCIAL ASSETS

Non-current and current financial assets were broken down as follows:

(million euros)		12/31/2022	12/31/2021
Other non-current financial assets			
Securities other than investments		—	—
Receivables from employees		39	39
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		1,435	1,935
Non-hedging derivatives		119	100
Other financial receivables		9	211
		1,602	**2,285**
Financial receivables for lease contracts		**49**	**45**
Total non-current financial assets	**(a)**	**1,651**	**2,330**
Securities other than investments, other financial receivables and other current financial assets			
Securities other than investments			
Measured at amortized cost (AC)		—	—
Measured at fair value through other comprehensive income (FVTOCI)		1,040	1,515
Measured at fair value through profit or loss (FVTPL)		406	734
		1,446	**2,249**
Financial receivables and other current financial assets			
Liquid assets with banks, financial institutions and post offices (with maturity over 3 months)		—	—
Receivables from employees		21	12
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		84	80
Non-hedging derivatives		47	41
Other short-term financial receivables		2	9
		154	**142**
	(b)	**1,600**	**2,391**
Financial receivables for lease contracts	**(c)**	**69**	**56**
Cash and cash equivalents	**(d)**	**3,555**	**6,904**
Total current financial assets	**e=(b+c+d)**	**5,224**	**9,351**
Financial assets relating to Discontinued operations/Non-current assets held for sale	**(f)**	**—**	**—**
Total non-current and current financial assets	**g=(a+e+f)**	**6,875**	**11,681**

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Financial receivables for lease contracts refer to:

- finance leases on user rights and equipment;
- agreements for the sale of network infrastructure in IRU with deferred collection over time recognized using the financial method envisaged by IFRS 16 given the contractual term substantially close to the economic life of the asset;
- lease contracts for commercial products with customers. The financial receivables for lease assets are offset by the financial debt for the corresponding leases payable.

Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature mainly refer to the mark-to-market spot valuation component of the hedging derivatives, whereas **hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature** refer to accrued income on such derivative contracts.

Non-hedging derivatives consist mainly of the mark-to-market component of the non-hedging derivatives of the Brazil Business Unit. More specifically, they include 112 million euros in relation to the option to subscribe shares of C6 Bank with which TIM S.A. entertains commercial relations.

Further details are provided in the Note “Derivatives”.

Securities other than investments included in current financial assets relate to:

- 1,040 million euros of listed securities, of which 368 million euros of treasury bonds purchased by Telecom Italia Finance S.A. as well as 672 million euros of bonds purchased by Telecom Italia Finance S.A. with different maturities, all with an active market and consequently readily convertible into cash. Under IFRS 9 and consistently with the Business model, such securities are classified as financial assets measured at fair value through other comprehensive income (FVTOCI). The purchases of the above government bonds, which, pursuant to Consob Communication no. DEM/11070007 of August 5, 2011, represent investments in “Sovereign debt securities”, have been made in accordance with the Guidelines for the “Management and control of financial risk” adopted by the TIM Group;
- 406 million euros of investments in monetary funds by the Brazil Business Unit, which, under IFRS 9, are classified as financial assets measured at fair value through profit or loss (FVTPL).

On the basis of two securities lending agreements signed with Telecom Italia Finance S.A. on November 27, 2019 and thereafter renewed on April 28, 2020, TIM S.p.A. received on loan until February 2, 2021 (renewable term) 98 million euros (nominal) of BTP 3/1/2023 and 150 million euros of BTP 4/15/2021; starting December 1, 2019, TIM S.p.A loans these securities to the counterparty NatWest.

On January 27, 2021, TIM S.p.A. renewed the securities lending agreement in place with Telecom Italia Finance S.A., which envisages the lending until February 15, 2023 of 98 million euros (nominal) of BTP 3/1/2023.

On January 29, 2021, TIM S.p.A. borrowed until October 5, 2023 (subject to renewal) 24 million euros (nominal) in BTP 10/15/2023 and 67.5 million euros (nominal) in BTP 2/1/2026; furthermore TIM S.p.A. lent the counterparty NatWest said securities in compliance with the agreement stipulated on December 21, 2020.

From an accounting standpoint, in compliance with IAS/IFRS, the assets are shown exclusively in the financial statements of Telecom Italia Finance S.A., which retains the risks and benefits associated with the position.

Further details are provided in the Note “Accounting policies”.

Cash and cash equivalents amounted to 3,555 million euros, a decrease of 3,349 million euros compared to December 31, 2021 and were broken down as follows:

(million euros)	12/31/2022	12/31/2021
Liquid assets with banks, financial institutions and post offices	2,622	6,092
Checks, cash and other receivables and deposits for cash flexibility	—	—
Securities other than investments (due within 3 months)	933	812
Total	**3,555**	**6,904**

The different technical forms of investing available cash at December 31, 2022 had the following characteristics:

- maturities: investments have a maximum maturity of three months;
- counterparty risk: deposits have been made with leading high-credit-quality banks and financial institutions with a rating of at least BBB according to Standard & Poor’s with regard to Europe, and with leading local counterparts with regard to investments in South America;
- country risk: deposits have been made mainly in major European financial markets.

Securities other than investments (due within 3 months) included 447 million euros (812 million euros at December 31, 2021) of Brazilian bank certificates of deposit (*Certificado de Depósito Bancário*) held by the Brazil Business Unit with premier local banking and financial institutions, 350 million euros of monetary portfolio securities and 135 million euros of Euro Commercial Papers, subscribed by Telecom Italia Finance S.A.

NOTE 11
MISCELLANEOUS RECEIVABLES AND OTHER NON-CURRENT ASSETS

This item rose by 99 million euros compared to December 31, 2021. The figure breaks down as follows:

(million euros)		12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial Instruments*
Miscellaneous receivables (non-current)	**(a)**	**560**	**275**	**433**	**144**
Other non-current assets					
Deferred contract costs		1,702		1,755	
Other deferred costs		103		78	
	(b)	**1,805**		**1,833**	
Total	**(a+b)**	**2,365**	**275**	**2,266**	**144**

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Miscellaneous receivables (non-current) totaled 560 million euros (433 million euros at December 31, 2021) and included Non-current income tax receivables of 124 million euros (147 million euros at December 31, 2021).

This item was mainly due to the Brazil Business Unit (516 million euros; 379 million euros at December 31, 2021).

More specifically, at December 31, 2022, the Brazil Business Unit showed non-current receivables relating to indirect tax for 153 million euros (137 million euros at December 31, 2021), to direct tax for 93 million euros (116 million euros at December 31, 2021) and to court deposits for 248 million euros (116 million euros at December 31, 2021).

More specifically, the legal deposits included the deposit, at December 31, 2022 equal to 120 million euros, requested in October 2022 by the 7th Business Court of the Legal District of Rio de Janeiro (Brazil) of TIM S.A., as buyer of part of the mobile assets of the Oi Group. Further details are provided in the Note "Disputes and Pending Legal Actions, other information, commitments and guarantees".

Other non-current assets amounted to 1,804 million euros (1,833 million euros at December 31, 2021). They mainly break down as follows:

- **Deferred contract costs** of 1,702 million euros (1,755 million euros at December 31, 2021), mainly related to the deferral of costs related to the activation and acquisitions of new contracts with customers. Contractual costs (mainly technical activation costs and commissions for the sales network) were deferred and charged to the separate income statements according to the expected duration of the contractual relationship with customers (on average around 4 years for the mobile business and around 8 years for the fixed-line business).

  Total (non-current and current) deferred contract costs amounted to 2,271 million euros (2,297 million euros at December 31, 2021) and break down as follows:

(million euros)	12/31/2022	12/31/2021
Deferred contract costs		
Non-current deferred contract costs	1,702	1,755
Current deferred contract costs	569	542
Total	**2,271**	**2,297**

(million euros)	12/31/2022	12/31/2021
Deferred contract costs		
Contract acquisition costs	1,262	1,246
Contract execution costs	1,009	1,051
Total	**2,271**	**2,297**

Changes to comprehensive deferred contract costs in 2022 are as follows:

(million euros)	12/31/2021	Increase	Release to income statement	Exchange differences and other changes	12/31/2022
Contract acquisition costs	1,246	369	(345)	(8)	1,262
Contract execution costs	1,051	199	(241)	—	1,009
Total	**2,297**	**568**	**(586)**	**(8)**	**2,271**

The deferred contract costs will be recognized in the income statement for future years and, in particular, of around 599 million euros in 2023, based on the amount at December 31, 2022 without taking into account the new deferred portions.

(million euros)	12/31/2022	Year of recognition in the income statement					
		2023	2024	2025	2026	2027	After 2027
Contract acquisition costs	1,262	356	283	217	153	106	147
Contract execution costs	1,009	243	218	182	138	103	125
Total	**2,271**	**599**	**501**	**399**	**291**	**209**	**272**

- **Other deferred costs** of 103 million euros, mainly attributable to the Parent Company TIM S.p.A. and the companies of the Telecom Italia Sparkle group.

NOTE 12

INCOME TAX EXPENSE (CURRENT AND DEFERRED)

Current income tax receivables

Non-current and current income tax receivables at December 31, 2022 amounted to 271 million euros (226 million euros at December 31, 2021).

Specifically, they consisted of:

- non-current income tax receivables of 124 million euros (147 million euros at December 31, 2021), relating to the companies of the Brazil Business Unit (93 million euros) and the Parent TIM S.p.A. (31 million euros). They include receivables of TIM S.A. relating to the decision of the Brazilian Supreme Federal Court on the non-collection of corporate income tax and social contributions on the monetary recalculation that uses the SELIC rate in cases of undue payment and receivables not transferred by the Parent Company related to tax and interest deriving from the recognized deductibility from IRES tax of the IRAP tax calculated on labor costs, relating to years prior to 2012, following the entry into force of Italian Decree Law 16/2012;
- current income tax receivables of 147 million euros (79 million euros at December 31, 2021), relating to the companies of the Brazil Business Unit (105 million euros) and the Domestic Business Unit (42 million euros). They include the current portion of these TIM S.A. receivables as well as receivables for tax paid abroad for 10 million euros, the IRAP residual surplus from previous years for 14 million euros, the tax consolidation receivable for 6 million euros and the receivables for the supplementary declarations submitted in 2022 for 2 million euros and other tax receivables of the Parent Company TIM S.p.A.

Tax assets and deferred tax liabilities

The net balance of 685 million euros at December 31, 2022 (3,268 million euros at December 31, 2021) breaks down as follows:

(million euros)	12/31/2022	12/31/2021
Deferred tax assets	769	3,513
Deferred tax liabilities	(84)	(245)
Total	**685**	**3,268**

Deferred tax assets at December 31, 2022 referred to the Domestic Business Unit for 523 million euros and to the Brazil Business Unit for 246 million euros. At December 31, 2021, deferred tax assets mainly referred to the Domestic Business Unit, at 3,427 million euros.

In the 2020 financial statements, the Parent Company TIM S.p.A. had benefited from the possibility of realigning the tax values to the greater value of the assets booked, specifically the value of goodwill of 23,051 million euros, as envisaged by Decree Law 104/2020, Art. 110, subsections 8 and 8 bis. Accordingly, this resulted in exchange for payment of substitute tax in the amount of 3% of the realigned value (692 million euros), in the possibility to deduct the tax amortization of the realigned value of 23,051 million euros over 18 years, starting 2021. These deductions, which would have generated benefits in terms of IRES and IRAP, have been fully noted at December 31, 2020 amongst deferred tax assets in the amount of 6,569 million euros, in view of the possibility of absorption through the Company's future taxable income, also taking into account the fact that IRES losses can be carried forward without time limits, where such may arise due to temporary incapacity of taxable income.

During 2022, the Parent Company TIM S.p.A. revoked the realignment of goodwill in accordance with Article 1, subsections 624 and 624-bis of Italian Law no. 234 of December 30, 2021, by means of the submission of the supplementary declaration for the 2020 tax period; this has, amongst others, entailed a write-off of the residual IRES deferred tax assets on the value of goodwill for 2,656 million euros. The 2021 financial statements, in addition to the use of 131 million for annual amortization, also included the write-off of 50% of the IRES deferred tax assets on the value of goodwill for 2,766 million euros and all IRAP deferred tax for 1,059 million euros as a consequence of the changes introduced by the 2022 Budget Law (Law 234/2021, Art. 160) to the duration of the period during which amortization of tax-recognized goodwill could be deducted (taking it from 18 to 50 years) and the assessment of the recoverability for IRAP purposes.

The 2022 financial statements do not include IRES deferred tax for period tax losses (as had been done in the previous financial statements) and those of previous years, in consideration of the changed assessment of the time frame for recoverability of deferred tax assets of the Parent Company TIM S.p.A., also determined on the basis of the 2023-2025 Industrial Plan.

Deferred tax liabilities mainly refer to Telecom Italia Capital for 52 million euros (214 million euros at December 31, 2021) and the Domestic Business Unit for 24 million euros (20 million euros at December 31, 2021).

Since the presentation of prepaid and deferred taxes in the financial statements takes into account the offsets by legal entity when applicable, the composition of the gross amounts before offsets is presented below:

(million euros)	12/31/2022	12/31/2021
Deferred tax assets	1,285	3,999
Deferred tax liabilities	(600)	(731)
Total	**685**	**3,268**

The temporary differences which made up this line item at December 31, 2022 and 2021, as well as the movements during 2022, were as follows:

(million euros)	12/31/2021	Recognized in profit or loss	Recognized in equity	Change in scope of consolidation and other changes	12/31/2022
Deferred tax assets					
Tax loss carryforwards (*)	46	(30)		9	25
Derivatives	517	(2)	(226)		289
Provision for bad debts	128	(14)		6	120
Provisions	368	33		14	415
Taxed depreciation and amortization	104	9		(1)	112
Tax realignment pursuant to Decree Law 104/2020 Art. 110	2,656	(2,656)			—
Other deferred tax assets	180	29	(25)	140	324
Total	**3,999**	**(2,631)**	**(251)**	**168**	**1,285**
Deferred tax liabilities					
Derivatives	(492)	(3)	164	1	(330)
Business combinations - for step-up of net assets in excess of tax basis	(52)	2	—	(7)	(57)
Accelerated depreciation	(83)	(44)		(9)	(136)
Convertible bonds	(45)	45	—		—
Other deferred taxes	(59)	(15)		(3)	(77)
Total	**(731)**	**(15)**	**164**	**(18)**	**(600)**
Total Deferred tax assets net of Deferred tax liabilities	**3,268**	**(2,646)**	**(87)**	**150**	**685**

(*) For the new flow of tax losses in 2022, the Parent Company TIM S.p.A. has not entered deferred tax assets.

The expirations of deferred tax assets and deferred tax liabilities at December 31, 2022 were the following:

(million euros)	Within next year	Beyond 1 year	Total at 12/31/2022
Deferred tax assets	590	695	1,285
Deferred tax liabilities	(180)	(420)	(600)
Total Deferred tax assets net of Deferred tax liabilities	**410**	**275**	**685**

At December 31, 2022, the TIM Group had unused tax loss carryforwards of 2,862 million euros, mainly relating to the Parent Company TIM S.p.A. and the company Telecom Italia Finance, with the following expiration dates:

Year of expiration	(million euros)
2023	—
2024	1
2025	1
2026	1
2027	—
Expiration after 2027	31
Without expiration	2,828
Total unused tax loss carryforwards	**2,862**

Unused tax loss carryforwards considered in the calculation of deferred tax assets amounted to 73 million euros at December 31, 2022 (150 million euros at December 31, 2021) and mainly referred to the Brazil

Business Unit. Deferred tax assets were recognized as it was considered probable that taxable income will be available in the future against which the tax losses can be utilized.

On the other hand, deferred tax assets of 685 million euros (333 million euros at December 31, 2021) were not recognized on 2,788 million euros of tax loss carry-forwards since, at the reporting date, their recoverability was not considered probable.

At December 31, 2022, deferred tax liabilities were not recognized on approximately 1.7 billion euros of tax-suspended reserves and undistributed earnings of subsidiaries, because the TIM Group is in a position to control the timing of the distribution of those reserves and it is probable that those accumulated earnings will not be distributed in the foreseeable future. The contingent liabilities relating to taxes that should be recognized, if these reserves are distributed, are in any case not significant.

Income tax payables

Current income tax payables amounted to 34 million euros (526 million euros at December 31, 2021). They break down as follows:

(million euros)	12/31/2022	12/31/2021
Income tax payables:		
non-current	—	231
current	34	295
Total	**34**	**526**

The current portion, equal to 34 million euros, refers to the Domestic Business Unit (20 million euros) and to the Brazil Business Unit (14 million euros). Following the specified revocation of the realignment of goodwill in accordance with Article 1, subsections 624 and 624-bis of Italian Law no. 234 of December 30, 2021, current tax payables of the Parent Company TIM S.p.A. at December 31, 2022 have been zeroed (231 million euros at December 31, 2021) for the reversal of the second installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, subsections 8 and 8 bis. Non-current tax payables, entirely referring to the Parent Company TIM S.p.A., have also been zeroed (231 million euros at December 31, 2021) for the reversal of the third installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, subsections 8 and 8 bis.

Income tax expense

The income tax expense for the years 2022 and 2021 breaks down as follows:

(million euros)		2022	2021
Current taxes for the year		95	15
Net difference in prior year estimates		(675)	(4)
Total current taxes		**(580)**	**11**
Deferred taxes		2,646	3,874
Total income tax expense on continuing operations	**(a)**	**2,066**	**3,885**
Income tax expense on Discontinued operations/Non-current assets held for sale	**(b)**	**—**	**—**
Total income tax expense for the year	**(a+b)**	**2,066**	**3,885**

Current tax from previous years includes the income of 692 million euros of the Parent Company TIM S.p.A. deriving from the writing off of substitute tax on the realignment of goodwill (Art. 110, subsection 8 and 8 bis of Decree Law 104/2020) deriving from the revocation of the latter, in accordance with Article 1, subsections 624 and 624-bis, of Law no. 234 of December 30, 2021.

Deferred tax for 2022 includes 2,656 million euros related to the writing off of the residual deferred IRES tax recorded by the Parent Company TIM S.p.A. in 2020 following the tax recognition of higher goodwill values booked in accordance with Decree Law 104/2020, Art. 110, subsections 8 and 8 bis.

The reconciliation between the theoretical tax expense, using the IRES tax rate in force in Italy (24%), and the effective tax expense for the years ended December 31, 2022 and 2021 is as follows:

(million euros)		2022	2021
Profit (loss) before tax from continuing operations		**(588)**	**(4,515)**
Theoretical income tax expense from continuing operations		**(141)**	**(1,084)**
Income tax effect on increases (decreases) in variations			
Tax losses of the year not considered recoverable		280	197
Tax losses from prior years not recoverable (recoverable) in future years		(8)	(20)
Non-deductible write-down of goodwill		—	989
IRES taxes for previous years		—	(8)
Prepaid IRES tax (benefit)/write-off pursuant to Decree Law 104/2020, Art. 110 and others		2,656	2,766
Brazil: different tax rate compared to the theoretical rate in force in Italy		30	48
Brazil: investment incentives		(29)	(28)
Other net differences		(82)	(59)
Effective taxes recognized in the Income Statement, excluding IRAP and substitute tax		**2,706**	**2,801**
Prepaid IRAP including tax (benefit)/write-off pursuant to Decree Law 104/2020, Art. 110		—	1,084
IRAP including write-off of substitute tax pursuant to Decree Law 104/2020, Art. 110		(640)	—
Total effective taxes recognized in the Income Statement from continuing operations	**(a)**	**2,066**	**3,885**
Effective taxes recognized in the Income Statement from Discontinued operations/Non-current assets held for sale	**(b)**	**—**	**—**
Total of actual taxes to income statement	**(a)+(b)**	**2,066**	**3,885**

For the analysis of the tax burden related to the Profit (loss) before tax from continuing operations, the impact of IRAP and substitute tax pursuant to Decree Law 104/2020, Art. 110, has been kept separate to avoid any distorting effect, since these taxes only apply to Italian companies and are calculated on a tax base other than pre-tax profit.

NOTE 13
INVENTORIES

The item increased compared to December 31, 2021, by 40 million euros and is broken down as follows:

(million euros)	12/31/2022	12/31/2021
Raw materials and supplies	2	2
Work in progress and semifinished products	8	5
Finished goods	274	246
Deposits on stocks	38	29
Total	**322**	**282**

Inventories essentially consist of fixed and mobile telecommunications equipment and handsets and related accessories, as well as office products and specialist printers.

Inventories consist of 280 million euros for the Domestic Business Unit (250 million euros at December 31, 2021) and 42 million euros for the Brazil Business Unit (32 million euros at December 31, 2021). The increase in inventories of the Domestic Business Unit is mainly due to a trend of lesser consumption seen on the Mobile segment of the Parent Company TIM S.p.A..

The item "Deposits on stocks" refers to deposits paid by Telecom Italia Sparkle to construct transmission systems, limited to the component for resale also through finance lease transfer contracts.

Inventories are stated net of a provision for bad debts amounting to 18 million euros at December 31, 2022 (21 million euros at December 31, 2021).

NOTE 14

TRADE AND MISCELLANEOUS RECEIVABLES AND OTHER CURRENT ASSETS

This item rose by 181 million euros compared to December 31, 2021. The figure breaks down as follows:

(million euros)		12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial Instruments*
Trade receivables					
Receivables from customers		1,586	*1,586*	1,545	*1,545*
Receivables from other telecommunications operators		1,288	*1,288*	1,130	*1,130*
	(a)	2,874	*2,874*	**2,675**	*2,675*
Miscellaneous receivables (current)					
Other receivables	(b)	689	*96*	**780**	*101*
Other current assets					
Contract assets		17	*17*	20	*20*
Deferred contract costs		569		542	
Other deferred costs		337		273	
Other		53		68	
	(c)	976	*17*	903	*20*
Total	(a+b+c)	4,539	***2,987***	**4,358**	***2,796***

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

The analyses of the aging of the financial instruments included in Trade and miscellaneous receivables and other current assets at December 31, 2022 and December 31, 2021 are provided below:

(million euros)	12/31/2022	of which non-overdue	of which overdue	of which overdue from: 0-90 days	91-180 days	181-365 days	More than 365 days
Trade and miscellaneous receivables and other current assets	2,987	2,371	616	167	84	137	228

(million euros)	12/31/2021	of which non-overdue	of which overdue	of which overdue from: 0-90 days	91-180 days	181-365 days	More than 365 days
Trade and miscellaneous receivables and other current assets	**2,796**	2,270	526	151	68	77	230

Overdue receivables increased by 101 million euros compared to December 31, 2021. This performance is a result of, for 2022: the Brazil Business Unit (79 million euros, including a positive exchange effect of approximately 61 million euros) and the Domestic Business Unit (22 million euros).

Overdue receivables increased by 90 million euros compared to December 31, 2021. This performance is a result of, for 2022: the Brazil Business Unit (66 million euros, including a positive exchange effect of approximately 9 million euros) and the Domestic Business Unit (24 million euros).

Trade receivables amounted to 2,874 million euros (2,675 million euros at December 31, 2021) and are stated net of the provision for bad debts of 499 million euros (565 million euros at December 31, 2021). They included 12 million euros (9 million euros at December 31, 2021) of medium/long-term receivables mainly relating to agreements for the sale of transmission capacity under Indefeasible Rights of Use (IRU).

Trade receivables mainly related to TIM S.p.A. (1,917 million euros) and to the Brazil Business Unit (653 million euros).

Movements in the provision for bad debts were as follows:

(million euros)	12/31/2022	12/31/2021
At January 1	**565**	**627**
Provision charges to the income statement	178	212
Utilization and decreases	(275)	(287)
Change in scope	7	1
Exchange rate differences and other changes	24	12
At December 31	**499**	**565**

Miscellaneous receivables (current) refer to other receivables amounting to 689 million euros (780 million euros at December 31, 2021) and are net of a provision for bad debts of 41 million euros (46 million euros at December 31, 2021). Details are as follows:

(million euros)	12/31/2022	12/31/2021
Advances to suppliers	282	270
Receivables from employees	10	10
Tax receivables	152	268
Receivables for grants from the government and public entities	11	14
Sundry receivables	234	218
Total	**689**	**780**

“Tax receivables” related to the Brazil Business Unit (120 million euros) and the Domestic Business (32 million euros).

“Receivables for grants from the government and public entities” referred mainly to the Ultrabroadband-UBB and Broadband-BB projects. The grants are recognized to the income statement when the related plants become ready for use.

“Sundry receivables” mainly included:

- TIM S.p.A. receivables for Universal Service (52 million euros);
- miscellaneous receivables of TIM S.p.A. from other TLC operators (28 million euros);
- TIM S.p.A. receivables for with-recourse assignments to factoring companies (26 million euros);
- TIM S.p.A. receivables from social security and pension institutions (17 million euros).

Other current assets included:

- **Contract assets with customers**: this item includes the effect of the early recognition of revenues for those bundle contracts (such as bundles of products and services) with individual performance obligations with a different recognition timing, in which the goods recognized “at a point in time” are sold at a discounted price, or for those contracts which, by providing for a discount for a period of time shorter than the minimum contract term, require, pursuant to IFRS 15, a reallocation of the discount over the minimum contractual term. Contract Assets at December 31, 2022 amounted to 17 million euros (20 million euros at December 31, 2021) and are net of the related write-down provision of 1 million euros and drop by 3 million euros, since the reversal to the income statement of the previously accumulated balance was substantially offset by the need to distribute discounts granted to customers temporally over the minimum contractual term, with particular reference to those connected with the impact of COVID-19;
- **Deferred contract costs** (569 million euros; 542 million euros at December 31, 2021) are contract costs (mainly technical activation costs and commissions for the sales network) deferred and recognized in the separate income statements according to the expected duration of the contractual relationship with customers (around 4 years for the mobile business and around 8 years for the fixed-line business). Further details on Deferred contract costs are provided in the Note “Miscellaneous receivables and other non-current assets”.
- **Other deferred costs** mainly concern:
  - the Parent Company essentially for: a) costs related to rental charges and other lease and rental costs (209 million euros); b) costs for the purchase of products and services (25 million euros); c) after-sales expenses on application offers (12 million euros); d) maintenance fees (12 million euros); e) insurance premiums (7 million euros);
  - to the Telecom Italia Sparkle group mainly related to the deferral of costs connected to payments for line lease and maintenance payments (22 million euros);
  - the Brazil Business Unit (23 million euros), essentially related to the deferral of service costs.

NOTE 15
EQUITY

This item consisted of:

(million euros)	12/31/2022	12/31/2021
Equity attributable to owners of the Parent	15,061	17,414
Non-controlling interests	3,664	4,625
Total	**18,725**	**22,039**

The composition of **Equity attributable to owners of the Parent** is the following:

(million euros)	12/31/2022		12/31/2021	
Share capital		11,614		11,614
Additional paid-in capital		2,133		2,133
Other reserves and retained earnings (accumulated losses), including profit (loss) for the year		1,314		3,667
Reserve for financial assets measured at fair value through other comprehensive income	(58)		49	
Reserve for hedging instruments	65		(128)	
Reserve for exchange differences on translating foreign operations	(2,085)		(2,500)	
Reserve for remeasurements of employee defined benefit plans (IAS 19)	(71)		(130)	
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method	—		—	
Sundry reserves and retained earnings (accumulated losses), including profit (loss) for the year	3,463		6,376	
Total		**15,061**		**17,414**

At December 31, 2022, **capital** came to 11,614 million euros net of treasury shares for 63 million euros.

It should be noted that the Parent Company's share capital carries a restriction on tax suspension for fiscal purposes for an amount of 1,191 million euros (11,104 million euros at December 31, 2021), down 9,913 million euros following revocation of the realignment of goodwill in accordance with art. 1, subsections 624 and 624-bis of Law no. 234 of December 30, 2021 and the cessation of the corresponding restriction previously applied to the capital.

In 2022, the capital did not change, as shown in the following table:

Reconciliation between the number of shares outstanding at December 31, 2021 and December 31, 2022

(number of shares)		as at 12/31/2021	Share assignment/issue	as at 12/31/2022	% on Capital
Ordinary shares issued	(a)	15,329,466,496	—	15,329,466,496	71.78%
less: treasury shares	(b)	(115,942,196)	—	(115,942,196)	
Ordinary shares outstanding	(c)	15,213,524,300	—	15,213,524,300	
Savings shares issued and outstanding	(d)	6,027,791,699	—	6,027,791,699	28.22%
Total TIM S.p.A. shares issued	**(a+d)**	**21,357,258,195**	**—**	**21,357,258,195**	**100.00%**
Total TIM S.p.A. shares outstanding	**(c+d)**	**21,241,315,999**	**—**	**21,241,315,999**	

Reconciliation between the value of shares outstanding at December 31, 2021 and December 31, 2022

(million euros)		Share Capital at 12/31/2021	Change in share capital	Share Capital at 12/31/2022
Ordinary shares issued	(a)	8,381	—	**8,381**
less: treasury shares	(b)	(63)	—	**(63)**
Ordinary shares outstanding	(c)	8,318	—	**8,318**
Savings shares issued and outstanding	(d)	3,296	—	**3,296**
Total TIM S.p.A. share capital issued	**(a+d)**	**11,677**	**—**	**11,677**
Total TIM S.p.A. share capital outstanding	**(c+d)**	**11,614**	**—**	**11,614**

The total value of ordinary treasury shares at December 31, 2022, amounting to 364 million euros, was recorded as follows: the part relating to accounting par value (63 million euros) recognized as a deduction from the share capital issued and the remaining part as a deduction from Other reserves and retained earnings (accumulated losses), including profit (loss) for the year.

Disclosure on share capital

The ordinary and savings shares of TIM S.p.A. are listed in Italy (FTSE index).

In the shareholder resolutions passed to increase share capital against cash payments, the pre-emption right can be excluded to the maximum extent of ten percent of the pre-existing share capital, on condition that the issue price corresponds to the market price of the shares and that this is confirmed in a specific report issued by the firm charged with the audit of the Company.

The Group sources itself with the capital necessary to fund its business development and operation requirements; the sources of funds are found in a balanced mix of equity, permanently invested by the shareholders, and debt capital, to guarantee a balanced financial structure and minimize the total cost of capital, with a resulting advantage to all the stakeholders.

Debt capital is structured according to different maturities and currencies to ensure an adequate diversification of the sources of funding and an efficient access to external sources of financing (taking advantage of the best opportunities offered in the financial markets of the euro, U.S. dollar and Pound sterling areas to minimize costs), taking care to reduce the refinancing risk.

The remuneration of equity is proposed by the board of directors to the shareholders' meeting, during which the annual financial statements are approved, based upon market trends and business performance, once all the other obligations are met, including debt servicing. Therefore, to ensure an adequate remuneration of capital, safeguard company continuity and business development, the Group constantly monitors the change in debt levels in relation to equity, the level of net debt and the operating margin of industrial operations.

Privileges of savings shares

The privileges of TIM S.p.A. savings shares are indicated below:

- the profit shown in the duly approved financial statements, after deducting the amount to be allocated to the legal reserve, must be distributed to the holders of savings shares in an amount up to 5% of the 0.55 euros per share;
- after assigning preferred dividends to the savings shares, the distribution of which is approved by the shareholders' meeting, the remaining profit shall be allocated among all the shares, so that savings shares are entitled to higher overall dividends than ordinary shares would be entitled to, to the extent of 2% of 0.55 euros per share;
- when, in any one year, dividends of below 5% of the 0.55 euros per share are paid to the savings shares, the difference is determined as an increase of the privileged dividend in the next two subsequent years;
- in the event of a distribution of reserves, the savings shares have the same rights as the other shares. Moreover, when there is no profit or insufficient profit is reported in the financial statements for a given year to satisfy the aforesaid savings shares privileges, the Shareholders' Meeting called to approve those financial statements may choose to satisfy the dividend right and/or the higher dividend right by distributing available reserves. The distribution of available reserves for such payments excludes the application of the mechanism extending the right to the preferred dividend not paid through the distribution of profits for the following two years;
- the reduction of share capital as a result of losses does not affect the savings shares except for the amount of the loss which is not covered by the portion of the share capital represented by the other shares;
- upon the wind-up of TIM S.p.A., the savings shares have a pre-emption right in the reimbursement of capital up to the amount of 0.55 euros per share;
- in the event of the cessation of trading in the Company's ordinary or savings shares, the holder of savings shares may ask TIM S.p.A. to convert his/her shares into ordinary shares, using the method selected during a special session of the shareholders' meeting called for that purpose within two months of being excluded from trading.

Additional paid-in capital, amounting to 2,133 million euros, was unchanged with respect to December 31, 2021.

Other reserves moved through the Statements of comprehensive income comprised:

- The **Reserve for financial assets measured at fair value through other comprehensive income**, negative for 58 million euros at December 31, 2022, decreased by 107 million euros compared to the figure at

December 31, 2021. In particular, the change in 2022 includes the losses from the securities portfolio of Telecom Italia Finance (50 million euros, of which 21 million euros were realized), the losses on the TI Ventures securities portfolio (6 million euros), the losses recorded by Olivetti for the valuation of SECO S.p.A. (36 million euros), the losses related to other current financial assets held by the Parent Company TIM (13 million euros) and the losses related to the equity investment in Fin.Priv. S.r.l. of the Parent Company TIM (2 million euros). This reserve is stated net of deferred tax assets of 3 million euros (at December 31, 2021, it was stated net of deferred tax liabilities of 1 million euros).

- The **Reserve for hedging instruments** had a positive balance of 65 million euros at December 31, 2022, (negative 128 million euros at December 31, 2021). This reserve is stated net of deferred tax liabilities of 22 million euros (at December 31, 2021, it was stated net of deferred tax assets of 39 million euros). In particular, this reserve includes the effective portion of gains or losses on the fair value adjustments of derivatives designated as hedges of the exposure to volatility in the cash flows of assets or liabilities recognized in the financial statements ("cash flow hedge").
- The **Reserve for exchange differences on translating foreign operations** showed a negative balance of 2,085 million euros at December 31, 2022 (negative 2,500 million euros at December 31, 2021) and mainly related to exchange differences resulting from the translation into euros of the financial statements of companies belonging to the Brazil Business Unit (negative for 2,114 million euros versus negative for 2,523 million euros at December 31, 2021).
- The **Reserve for the remeasurement of employee defined benefit plans**, negative for 71 million euros, increased by 59 million euros compared with December 31, 2021 following the recording of the changes in actuarial gains (losses), net of the related income tax effect.
- The **Share of other comprehensive income (losses) of associates and joint ventures accounted for using the equity method** is nil at both December 31, 2022 and December 31, 2021.

Other sundry reserves and retained earnings (accumulated losses), including profit (loss) for the year amounted to 3,463 million euros and decreased by 2,913 million euros, as detailed below:

(million euros)	2022	2021
Profit (loss) for the year attributable to owners of the Parent	(2,925)	(8,652)
Dividends approved - TIM S.p.A.	—	(318)
Equity instruments	6	7
FiberCop - capital increase	—	(98)
Other changes	6	(44)
Change for the year in Sundry reserves and retained earnings (accumulated losses), including profit (loss) for the year	**(2,913)**	**(9,105)**

Note that following the specified revocation of the realignment of goodwill, the corresponding restriction previously placed on the Parent Company's reserves under tax suspension for fiscal purposes in accordance with Decree Law 104/2020, Art. 110, subsection 8, was lifted.

In 2022, no dividends were deliberated.

In 2021, dividends approved by TIM S.p.A. are 318 million euros and refer to the distribution to Shareholders of a dividend of 0.0100 euro per ordinary share and 0.0275 euro per savings share, gross of statutory withholding taxes.

Equity attributable to non-controlling interests, amounting to 3,664 million euros, mainly refers to FiberCop S.p.A. (2,122 million euros) and the companies of the Brazil Business Unit (1,545 million euros) and shows a decrease of 961 million euros compared to December 31, 2021, as detailed below:

(million euros)	2022	2021
Profit (loss) for the year attributable to Non-controlling interests	271	252
Group Company dividends paid to minority shareholders	(86)	(55)
Changes in the Reserve for exchange differences on translating foreign operations	182	12
Daphne 3 - deconsolidation	(1,332)	—
FiberCop - capital increase	—	1,848
Daphne 3 - distribution of additional paid-in capital	—	(42)
Other changes	4	(15)
Change for the year in Equity attributable to Non-controlling interest	**(961)**	**2,000**

The Group company dividends paid to minority shareholders mainly referred to the Brazil Business Unit for 86 million euros. 2021 dividends mainly referred to the Brazil Business Unit for 55 million euros.

The Reserve for exchange differences on translating foreign operations attributable to non-controlling interest showed a negative balance of 973 million euros at December 31, 2022 (negative for 1,155 million euros at December 31, 2021), relating entirely to exchange differences arising from the translation into euros of the financial statements of the companies belonging to the Brazil Business Unit.

Future potential changes in share capital

Details of "Future potential changes in share capital" are presented in the Note "Earnings per share".

NOTE 16

NON-CURRENT AND CURRENT FINANCIAL LIABILITIES

Non-current and current financial liabilities (gross financial debt) are broken down as follows:

(million euros)		12/31/2022	12/31/2021
Non-current financial liabilities for financing contracts and others			
Financial payables (medium/long-term):			
Bonds		15,259	17,383
Convertible bonds		—	—
Amounts due to banks		5,898	4,394
Other financial payables		305	306
		21,462	**22,083**
Other medium/long-term financial liabilities:			
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		234	1,337
Non-hedging derivatives		43	17
Other liabilities		—	—
		277	**1,354**
	(a)	**21,739**	**23,437**
Non-current financial liabilities for lease contracts	**(b)**	**4,597**	**4,064**
Total non-current financial liabilities	**c=(a+b)**	**26,336**	**27,501**
Current financial liabilities for financing contracts and others			
Financial payables (short term):			
Bonds		2,799	1,514
Convertible bonds		—	1,998
Amounts due to banks		1,766	2,099
Other financial payables		195	236
		4,760	**5,847**
Other short-term financial liabilities:			
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		193	62
Non-hedging derivatives		86	36
Other liabilities		—	—
		279	**98**
	(d)	**5,039**	**5,945**
Current financial liabilities for lease contracts	**(e)**	**870**	**651**
Total current financial liabilities (*)	**f=(d+e)**	**5,909**	**6,596**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale	**(g)**	**—**	**—**
Total Financial liabilities (Gross financial debt)	**h=(c+f+g)**	**32,245**	**34,097**

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Gross financial debt according to the original currency of the transaction is as follows:

	12/31/2022		12/31/2021	
	(millions of foreign currency)	(million euros)	(millions of foreign currency)	(million euros)
USD	5,901	5,532	5,789	5,111
GBP	389	439	389	463
BRL	17,348	3,117	12,694	2,008
YEN	20,030	142	20,030	154
ILS	49	13	51	14
EUR		23,002		26,347
Total		**32,245**		**34,097**

For the exchange rates used for the conversion of amounts in foreign currency, see the Note "Other information".

The breakdown of gross financial debt by effective interest-rate bands applicable to the original currency is provided below, excluding the effect of any derivative hedging instruments:

(million euros)	12/31/2022	12/31/2021
Up to 2.5%	5,873	8,619
From 2.5% to 5%	13,469	12,872
From 5% to 7.5%	6,920	7,055
From 7.5% to 10%	2,024	1,971
Over 10%	2,748	1,437
Accruals/deferrals, MTM and derivatives	1,211	2,143
Total	**32,245**	**34,097**

Following the use of hedging instruments, on the other hand, gross financial debt by nominal interest rate level is:

(million euros)	12/31/2022	12/31/2021
Up to 2.5%	8,416	15,353
From 2.5% to 5%	13,168	9,936
From 5% to 7.5%	5,039	3,396
From 7.5% to 10%	1,192	1,334
Over 10%	3,219	1,935
Accruals/deferrals, MTM and derivatives	1,211	2,143
Total	**32,245**	**34,097**

The maturities of financial liabilities according to the expected nominal repayment amount, as defined by contract, are the following:

Details of the maturities of financial liabilities – at nominal repayment amount:

	maturing by 12/31 of the year:						
(million euros)	2023	2024	2025	2026	2027	After 2027	Total
Bonds	2,423	3,406	2,000	1,750	1,250	6,723	17,552
Loans and other financial liabilities	962	1,021	1,419	2,249	727	170	6,548
Finance lease liabilities	786	1,178	593	505	447	1,873	5,382
Total	**4,171**	**5,605**	**4,012**	**4,504**	**2,424**	**8,766**	**29,482**
Current financial liabilities	1,109	—	—	—	—	—	1,109
Total	**5,280**	**5,605**	**4,012**	**4,504**	**2,424**	**8,766**	**30,591**

The main components of financial liabilities are commented below.

Bonds are broken down as follows:

(million euros)	12/31/2022	12/31/2021
Non-current portion	15,259	17,383
Current portion	2,799	1,514
Total carrying amount	**18,058**	**18,897**
Fair value adjustment and measurements at amortized cost	(506)	(559)
Total nominal repayment amount	**17,552**	**18,338**

The nominal repayment amount of bonds totaled 17,552 million euros, down by 2,786 million euros compared to December 31, 2021 (20,338 million euros) as a result of repayments made in 2022.

The change in bonds during 2022 was as follows:

Repayments

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A 2002-2022 reserved for subscription by employees	Euro	214	1/1/2022
Telecom Italia S.p.A. 1,250 million euros 5.25% [1]	Euro	884	2/10/2022
Telecom Italia S.p.A. 2,000 million euros 1.125% Convertible bond	Euro	2,000	3/26/2022

(1) Net of buy-backs totaling 366 million euros made by the company in 2015.

The following table lists the bonds issued by companies of the TIM Group, by issuing company, expressed at the nominal repayment amount, net of bond buy-backs, and also at market value:

Currency	Total (millions)	Nominal repayment amount (million euros)	Coupon	Issue date	Maturity date	Issue price (%)	Market price at 12/31/2022 (%)	Market value at 12/31/2022 (million euros)
Bonds issued by TIM S.p.A.								
Euro	1,000	1,000	3.250%	1/16/2015	1/16/2023	99.446	99.915	999
GBP	375	423	5.875%	5/19/2006	5/19/2023	99.622	99.331	420
Euro	1,000	1,000	2.500%	1/19/2017	7/19/2023	99.288	98.668	987
Euro	750	750	3.625%	1/20/2016	1/19/2024	99.632	97.978	735
Euro	1,250	1,250	4.000%	1/11/2019	4/11/2024	99.436	97.690	1,221
USD	1,500	1,406	5.303%	5/30/2014	5/30/2024	100	94.785	1,333
Euro	1,000	1,000	2.750%	4/15/2019	4/15/2025	99.320	95.816	958
Euro	1,000	1,000	3.000%	9/30/2016	9/30/2025	99.806	93.064	931
Euro	750	750	2.875%	6/28/2018	1/28/2026	100	91.261	684
Euro	1,000	1,000	3.625%	5/25/2016	5/25/2026	100	93.595	936
Euro	1,250	1,250	2.375%	10/12/2017	10/12/2027	99.185	84.352	1,054
Euro	1,000	1,000	1.625%	1/18/2021	1/18/2029	99.074	76.481	765
Euro	670	670	5.250%	3/17/2005	3/17/2055	99.667	74.328	498
Subtotal		**12,499**						**11,521**
Bonds issued by Telecom Italia Finance S.A. and guaranteed by TIM S.p.A.								
Euro	1,015	1,015	7.750%	1/24/2003	1/24/2033	(a) 109.646	105.749	1,073
Subtotal		**1,015**						**1,073**
Bonds issued by Telecom Italia Capital S.A. and guaranteed by TIM S.p.A.								
USD	1,000	937.5	6.375%	10/29/2003	11/15/2033	99.558	81.924	768
USD	1,000	937.5	6.000%	10/06/2004	9/30/2034	99.081	76.235	715
USD	1,000	937.5	7.200%	7/18/2006	7/18/2036	99.440	81.424	763
USD	1,000	937.5	7.721%	6/04/2008	6/04/2038	100	83.681	785
Subtotal		**3,750**						**3,031**
Bonds issued by TIM S.A.								
BRL	1,600	288	IPCA+4.1682%	6/15/2021	6/15/2028	100	100	288
Subtotal		**288**						**288**
Total		**17,552**						**15,913**

(a) Weighted average issue price for bonds issued with more than one tranche.

The regulations and the Offering Circulars relating to the bonds of the TIM Group are available on the corporate website gruppotim.it.

On January 20, 2023, TIM issued a 5-year Bond for an amount of 850 million euros, coupon 6.875%.

Medium/long-term amounts **due to banks** totaled 5,898 million euros (4,394 million euros at December 31, 2021). On July 6, 2022, TIM stipulated a loan with a pool of leading international banks, which benefits from the "Italy Guarantee" (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020 as subsequently amended and supplemented) for an amount of 2 billion euros. Short-term amounts due to banks totaled 1,766 million euros (2,099 million euros at December 31, 2021) and included 845 million euros of the current portion of medium/long-term amounts due to banks and 495 million euros in repurchase agreements due by April 2023.

The other medium/long-term **financial payables** totaled 305 million euros (306 million euros at December 31, 2021), 140 million euros of which refer to the Telecom Italia Finance S.A. loan for JPY 20,000 million, maturing in 2029. Short-term other financial payables amounted to 195 million euros (236 million euros at December 31, 2021) and included 19 million euros of the current portion of medium/long-term other financial payables.

Medium/long-term **financial liabilities for lease contracts** amounted to 4,597 million euros (4,064 million euros at December 31, 2021), whilst short-term payables totaled 870 million euros (651 million euros at December 31, 2021) and included 856 million euros in the current portion of financial liabilities for medium/long-term lease contracts.

With reference to the finance lease liabilities recognized in 2022 and 2021, the following is noted:

(million euros)	2022	2021
Principal reimbursements	708	604
Cash out interest portion	315	263
Total	**1,023**	**867**

Hedging derivatives relating to items classified as non-current financial liabilities amount to 234 million euros (1,337 million euros at December 31, 2021). Hedging derivatives relating to items classified as current liabilities of a financial nature totaled 193 million euros (62 million euros at December 31, 2021).

Non-hedging derivatives classified as non-current financial liabilities came to 43 million euros (17 million euros at December 31, 2021), while non-hedging derivatives classified under current financial liabilities amounted to 86 million euros (36 million euros at December 31, 2021). These also include the measurement of derivatives which, although put into place for hedging purposes, do not possess the formal requisites to be considered as such under IFRS.

Covenants and negative pledges in place at December 31, 2022

Bonds issued by TIM S.p.A., Telecom Italia Finance S.A. and Telecom Italia Capital S.A. do not contain financial covenants (e.g. ratios such as Debt/EBITDA, EBITDA/Interest, etc.) or clauses that result in the automatic early redemption of the bonds in relation to events other than the insolvency of the TIM Group; furthermore, the repayment of the bonds and the payment of interest are not covered by specific guarantees nor are there commitments provided relating to the assumption of future guarantees, except for the full and unconditional guarantees provided by TIM S.p.A. for the bonds issued by Telecom Italia Finance S.A. and Telecom Italia Capital S.A..

Since these bonds have been placed principally with institutional investors in main world capital markets (Euromarket and USA), the terms which regulate the bonds are in line with the market practice for similar transactions effected on these same markets.

Regarding loans taken out by TIM from the European Investment Bank (EIB), on May 19, 2021, TIM entered into a new loan for an amount of 230 million euros, in support of projects to digitize the country. In addition, on that same date, it extended the loan signed in 2019 (for an initial amount of 350 million euros) for an additional amount of 120 million euros.

Therefore, at December 31, 2022 the nominal total of outstanding loans with the EIB was 700 million euros, all drawn down and not backed by bank guarantee.

The two EIB loans signed on November 25, 2019 and May 19, 2021 contain the following covenants:

- in the event the company becomes the target of a merger, demerger or conferral of a business segment outside the TIM Group, or sells, disposes of or transfers assets or business segments (except in certain cases, expressly provided for), it shall immediately inform the EIB which shall have the right to ask for guarantees to be provided or changes to be made to the loan contract, or, only for certain loan agreements, the EIB shall have the option to demand the immediate repayment of the loan (should the merger, demerger or contribution of a business segment outside the TIM Group compromise the Project execution or cause a prejudice to EIB in its capacity as creditor);
- TIM undertook to ensure that, for the entire duration of the loan, the total financial debt of the TIM Group companies other than TIM – except for the cases when that debt is fully and irrevocably secured by TIM – is lower than 35% (thirty-five percent) of the TIM Group's total financial debt;
- “Inclusion clause", under which, in the event TIM commits to uphold financial covenants in other loan contracts (and even more restrictive clauses, including, for instance, cross default clauses and commitments restricting the sale of goods) that are not present in or are stricter than those granted to the EIB, the EIB will have the right – if, in its reasonable opinion, it considers that such changes may have a negative impact on TIM's financial capacity – to request the provision of guarantees or an amendment of the loan contract in order to establish an equivalent provision in favor of the EIB;
- "Network Event", under which, in the event of the disposal of the entire fixed network or of a substantial part of it (in any case, more than half in quantitative terms) to third parties not controlled by the Company, or in the event of disposal of the controlling interest in the company in which the network or a substantial part of it has previously been transferred, TIM must immediately inform the EIB, which may then opt to demand collateral or an amendment of the loan agreement or choose an alternative solution.

The TIM loan agreements do not contain any financial covenants (e.g. Debt/EBITDA, EBITDA/interest ratios, etc.), failure to comply with which would entail an obligation to repay the loan in place, with the exception of the loan signed on July 6, 2022, which is backed by the “Italy Guarantee” (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020, as subsequently amended and supplemented).

The loan agreements contain the usual other types of covenants, including the commitment not to pledge the Company’s assets as collateral for loans (negative pledge) and the commitment not to change the business purpose or sell the assets of the Company unless specific conditions exist (e.g. the sale takes place at fair market value). Covenants with basically the same content can be found in the export credit loan agreement.

In the loan agreements and the bonds, TIM is required to provide notification of change of control. Identification of the occurrence of a change of control and the applicable consequences – including, at the discretion of the investors, the establishment of guarantees or the early repayment of the amount paid in cash or as shares and the cancellation of the commitment in the absence of agreements to the contrary – are specifically covered in the individual agreements.

In addition, the outstanding loans generally contain a commitment by TIM, whose breach is an Event of Default, not to implement mergers, demergers or transfers of business, involving entities outside the Group. Such an Event of Default may entail, upon request of the Lender, the early redemption of the drawn amounts and/or the annulment of the undrawn commitment.

The documentation of the loans granted to certain companies of the TIM Group generally contain obligations to comply with certain financial ratios, as well as the usual other covenants, under penalty of a request for the early repayment of the loan.

Finally, as at December 31, 2022, no covenant, negative pledge or other clause relating to the aforementioned debt position had in any way been breached or violated.

Revolving Credit Facility and Term Loan

The following table shows committed credit lines(*) available at December 31, 2022:

(billion euros)	12/31/2022		12/31/2021	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - May 2026	4.0	—	4.0	—
Total	**4.0**	—	**4.0**	**—**

(*) In accordance with the contract signed, the Banks have committed to make the funds available on demand (with at least 3 days' notice). As this is a "Committed" line, the banks have no mechanisms in place not to honor the request for funds made by the Company, without prejudice to the market standard early mandatory cancellation clauses (Natural contract expiry, Change in control, Borrower illegality, Events of default).

On July 6, 2022, TIM stipulated a new loan with a pool of leading international banks, which benefits from the "Italy Guarantee" (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020 as subsequently amended and supplemented) for an amount of 2 billion euros.

Rating at December 31, 2022

At December 31, 2022, the three rating agencies – Standard & Poor's, Moody's and Fitch Ratings – rated TIM as follows:

	Rating	Outlook
STANDARD & POOR'S	B+	Negative
MOODY'S	B1	Negative
FITCH RATINGS	BB-	Negative

NOTE 17
NET FINANCIAL DEBT

The table below shows the breakdown of net financial debt of the TIM Group at December 31, 2022 and December 31, 2021, determined in accordance with the provisions of the "*Guidelines on disclosure requirements under the Prospectus Regulation*" issued by the ESMA (European Securities & Markets Authority) on March 4, 2021 (ESMA32-382-1138) and incorporated by Consob with its Note of Attention no. 5/21 dated April 29, 2021.
This table also shows the reconciliation of the net financial debt determined according to the aforementioned criteria indicated by the ESMA and net financial debt calculated according to the criteria of the TIM Group.

(million euros)		12/31/2022	12/31/2021
Liquid assets with banks, financial institutions and post offices	(a)	2,622	6,092
Other cash and cash equivalents	(b)	933	812
Securities other than investments	(c)	1,446	2,249
Liquidity	**(d=a+b+c)**	**5,001**	**9,153**
Current financial debt (including debt instruments, but excluding the current portion of non-current financial debt)	(e)	1,115	1,538
Current portion of non-current financial debt	(f)	4,663	4,937
Current financial debt	**(g=e+f)**	**5,778**	**6,475**
Net current financial debt	**(h=g-d)**	**777**	**(2,678)**
Non-current financial debt (excluding the current part and debt instruments)	(i)	9,523	8,083
Debt instruments	(j)	15,259	17,383
Trade payables and other non-current debt (**)	(k)	117	81
Non-current financial debt	**(l=i+j+k)**	**24,899**	**25,547**
Total net financial debt as per ESMA guidelines 32-382-1138	**(m=h+l)**	**25,676**	**22,869**
Trade payables and other non-current debt (**)		(117)	(81)
Non-current financial receivables arising from lease contracts		(49)	(45)
Current financial receivables arising from lease contracts		(69)	(56)
Financial receivables and other current financial assets		(23)	(21)
Other financial receivables and other non-current financial assets		(48)	(250)
Financial assets/liabilities relating to discontinued operations/non-current assets held for sale		—	—
Subtotal	**(n)**	**(306)**	**(453)**
Net financial debt carrying amount (*)	**(p=m+n)**	**25,370**	**22,416**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	(q)	(6)	(229)
Adjusted Net Financial Debt	**(r=p+q)**	**25,364**	**22,187**

(*) As regards the effects of related-party transactions on net financial debt, reference should be made to the specific table included in the Note "Related-party transactions".

(**) Mainly include the payables of the Brazil Business Unit for the purchase and renewal of telecommunications licenses (55 million euros at December 31, 2022), also including the payable due to Entidade Administradora da Conectividade de Escolas (EACE) for the development of certain infrastructural projects in Brazil in connection with the assignment of the rights of use of frequencies for 5G services.

Additional cash flow information required by IAS 7

(million euros)		12/31/2021	Cash movements		Non-cash movements			12/31/2022
			Receipts and/or issues	Payments and/or reimbursements	Exchange differences	Fair value changes	Other changes and reclassifica-tions	
Financial payables (medium/long-term):								
Bonds		18,897		(1,098)	312	(46)	(7)	18,058
Convertible bonds		1,998		(2,000)			2	—
Amounts due to banks		5,180	2,288	(804)	40		39	6,743
Other financial payables		321		(5)	7		1	324
	(a)	**26,396**	**2,288**	**(3,907)**	**359**	**(46)**	**35**	**25,125**
of which short-term		*4,313*						*3,663*
Medium/long-term finance lease liabilities:		**4,712**	**254**	**(708)**	**161**		**1,034**	**5,453**
	(b)	**4,712**	**254**	**(708)**	**161**	**—**	**1,034**	**5,453**
of which short-term		*648*						*856*
Other medium/long-term financial liabilities:								
Hedging derivative liabilities relating to hedged items classified as non-current assets/liabilities of a financial nature		1,399				(972)		427
Non-hedging derivative liabilities		52			7	50	16	125
Other liabilities		—						—
	(c)	**1,451**	**—**	**—**	**7**	**(922)**	**16**	**552**
of which short-term		*97*						*275*
Financial payables (short term):								
Amounts due to banks		1,313					(392)	921
Other financial payables		225			4	(2)	(33)	194
	(d)	**1,538**	**—**	**—**	**4**	**(2)**	**(425)**	**1,115**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale:		**—**						**—**
	(e)	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Total Financial liabilities (Gross financial debt)								
	(f=a+b+c+d+e)	**34,097**	**2,542**	**(4,615)**	**531**	**(970)**	**660**	**32,245**
Hedging derivative receivables relating to hedged items classified as current and non-current assets/liabilities of a financial nature	(g)	2,015			267	(770)	7	1,519
Non-hedging derivative receivables	(h)	141			(1)	23	3	166
Total	(i=f-g-h)	**31,941**	**2,542**	**(4,615)**	**265**	**(223)**	**650**	**30,560**

The value of the paid and collected interest expense reported in the Report on Operations takes into account the movements relating to transactions in CCIRS derivatives to hedge underlying assets in both the assets component (collections) and the liabilities component (payments) without netting the positions.

(million euros)	2022	2021
Interest expense paid	(1,668)	(1,440)
Interest income received	562	437
Net total	**(1,106)**	**(1,003)**

To consider the components of CCIRS derivatives as a single transaction, a representation is given with interest flows in and out shown net. This approach gives the following results:

(million euros)	2022	2021
Interest expense paid	(1,297)	(1,104)
Interest income received	191	101
Net total	**(1,106)**	**(1,003)**

NOTE 18
FINANCIAL RISK MANAGEMENT

Financial risk management objectives and policies of the TIM Group

The TIM Group is exposed to the following financial risks in the ordinary course of its business operations:

- Market risk: stemming from changes in interest rates and exchange rates in connection with financial assets that have been originated and financial liabilities that have been assumed;
- Credit risk: representing the risk of non-fulfillment of obligations undertaken by the counterparty with regard to the liquidity investments of the Group;
- Liquidity risk: connected with the need to meet short-term financial commitments.

These financial risks are managed by:

- the establishment, at central level, of guidelines for directing operations;
- the work of an internal committee that monitors the level of exposure to market risks in accordance with pre-established general objectives;
- the identification of the most suitable financial instruments, including derivatives, to reach pre-established objectives;
- the monitoring of the results achieved;
- the exclusion of the use of financial instruments for speculative purposes.

The policies for the management and the sensitivity analyses of the above financial risks by the TIM Group are described below.

Identification of risks and analysis

The TIM Group is exposed to market risks, as a result of changes in interest rates and exchange rates, in the markets in which it operates or has bond issues, mainly in Europe, the United States, Great Britain and Latin America.

The financial risk management policies of the TIM Group are directed towards diversifying market risks, hedging exchange rate risk in full and minimizing interest rate exposure by an appropriate diversification of the portfolio, which is also achieved by using carefully selected derivative financial instruments.

The Group defines an optimum composition of its debt structure by balancing fixed and variable-rates and uses derivative financial instruments to achieve that debt composition. In consideration of the Group's operating activities, the optimum combination of medium/long-term non-current financial liabilities has been identified, on the basis of the nominal value, in the 65%-85% range for the fixed-rate component and in the 15%-35% range for the variable-rate component.

In managing market risk, the Group has adopted Guidelines on "Management and control of financial risk" and mainly uses the following financial derivatives:

- Interest Rate Swaps (IRS), to modify the profile of the original exposure to interest rate risks on loans and bonds, both fixed and variable;
- Cross Currency and Interest Rate Swaps (CCIRS) and Currency Forwards, to convert loans and bonds issued in currencies other than euro – principally in US dollars and British pounds – to the functional currencies of the operating companies.

Derivative financial instruments are designated as fair value hedges for managing exchange rate and interest rate risks on instruments denominated in currencies other than euro and for managing interest rate risk on fixed-rate loans in euros. Derivative financial instruments are designated as cash flow hedges when the objective is to pre-set the exchange rate of future transactions and the interest rate.

All derivative financial instruments are entered into with banking and financial counterparties with at least a “BBB-” rating from Standard & Poor’s or an equivalent rating and a non-negative outlook. The exposure to the various market risks can be measured by sensitivity analyses, as set forth in IFRS 7. This analysis illustrates the effects produced by a given and assumed change in the levels of the relevant variables in the various reference markets (exchange rates, interest rates and prices) on finance income and expenses and, at times, directly on equity. The sensitivity analysis was performed based on the suppositions and assumptions indicated below:

- sensitivity analyses were performed by applying reasonably likely changes in the relevant risk variables to the amounts in the consolidated financial statements at December 31, 2022;
- changes in value of fixed-rate financial instruments, other than derivatives, produced by changes in the reference interest rates, generate an impact on profit only when, in accordance with IAS 39 and IFRS 9, they are accounted for at their fair value through profit and loss. All fixed-rate instruments, which are accounted for at amortized cost, are not subject to interest rate risk as defined by IFRS 7;
- in the case of fair value hedge relationships, fair value changes of the underlying hedged item and of the derivative instrument, due to changes in the reference interest rates, offset each other almost entirely in the income statement for the year. As a result, these financial instruments are not exposed to the interest rate risk;

- changes in the value of designated financial instruments in a cash flow hedge relationship, produced by changes in interest rates, generate an impact on the debt level and on equity; accordingly, they are included in this analysis;
- the changes in value, produced by changes in the reference interest rates, of variable-rate financial instruments, other than derivatives, which are not part of a cash flow hedge relationship, generate an impact on the finance income and expenses for the year; accordingly they are included in this analysis.

Exchange rate risk – Sensitivity analysis

At December 31, 2022 (and also at December 31, 2021), the exchange rate risk of the Group's loans denominated in currencies other than the functional currency of the single companies' financial statements was hedged in full. Accordingly, a sensitivity analysis was not performed on the exchange rate risk.

Interest rate risk – Sensitivity analysis

The change in interest rates on the variable component of payables and liquidity may lead to higher or lower finance income and expenses, while changes in the level of the expected interest rate affect the fair value measurement of the Group's derivatives. In particular:

- with regard to derivatives that convert the liabilities contracted by the Group to fixed rates (cash flow hedging), in line with international accounting standards that regulate hedge accounting, the fair value (mark-to-market) measurement of such instruments is set aside in a specific unavailable Equity reserve. The combined change of the numerous market variables to which the mark-to-market calculation is subject between the transaction inception date and the measurement date renders any assumption about the trend of the variables of little significance. As the contract expiration date approaches, the accounting effects described will gradually be absorbed until they cease to exist;
- if at December 31, 2022 the interest rates in the various markets in which the TIM Group operates had been 100 basis points higher/lower compared to the actual rates, then higher/(lower) finance expenses, before the income tax effect, would have been recognized in the consolidated income statement of 53 million euros (-18 million euros at December 31, 2021).

Refer to Note "Accounting Policies" for the potential risk generated by the reform of benchmark interest rates.

Allocation of the financial structure between fixed rate and variable rate

As for the allocation of the financial structure between the fixed-rate component and the variable-rate component, for both financial assets and liabilities, reference should be made to the following tables. These tables have been prepared by taking into account the nominal repayment/investment amount (since that amount expresses the effective interest rate exposure of the Group) and, as far as financial assets are concerned, the intrinsic nature (financial characteristics and duration) of the transactions under consideration rather than the stated contractual terms alone. Bearing that in mind, a transaction whose characteristics (short or very short time frame and frequent renewal) are such that the interest rate is periodically reset on the basis of market parameters, even though the contract does not call for re-fixing the interest rate (as in the case of bank deposits), has been considered in the variable rate category.

Total Financial liabilities (at the nominal repayment amount)

(million euros)	12/31/2022			12/31/2021		
	Fixed rate	Variable rate	Total	Fixed rate	Variable rate	Total
Bonds	15,564	1,988	17,552	19,571	767	20,338
Loans and other financial liabilities	5,414	6,516	11,930	5,012	4,946	9,958
Total non-current financial liabilities (including the current portion of medium/long-term financial liabilities)	**20,978**	**8,504**	**29,482**	**24,583**	**5,713**	**30,296**
Total current financial liabilities (*)	**689**	**420**	**1,109**	**1,264**	**272**	**1,536**
Total	**21,667**	**8,924**	**30,591**	**25,847**	**5,985**	**31,832**

Total Financial assets (at the nominal investment amount)

(million euros)	12/31/2022			12/31/2021		
	Fixed rate	Variable rate	Total	Fixed rate	Variable rate	Total
Cash and cash equivalents	—	2,621	2,621	—	6,092	6,092
Securities	1,520	908	2,428	1,421	1,616	3,037
Other receivables	1,085	63	1,148	1,008	51	1,059
Total	**2,605**	**3,592**	**6,197**	**2,429**	**7,759**	**10,188**

With regard to variable-rate financial instruments, the contracts provide for revisions of the related parameters to take place within the subsequent 12 months.

Effective interest rate

As to the effective interest rate, for the categories where that parameter can be determined, such parameter refers to the original transaction net of the effect of any derivative hedging instruments.

The disclosure, which is provided by class of financial asset and liability, has been determined, for purposes of calculating the weighted average, using the carrying amount adjusted by accruals, prepayments, deferrals and fair value adjustments: this is therefore the amortized cost, net of accruals and any changes in fair value, as a consequence of hedge accounting.

Total Financial liabilities

(million euros)	12/31/2022		12/31/2021	
	Adjusted carrying amount	Effective interest rate (%)	Adjusted carrying amount	Effective interest rate (%)
Bonds	17,504	4.67	20,249	4.32
Loans and other financial liabilities	13,530	4.78	11,705	3.21
Total	**31,034**	**4.72**	**31,954**	**3.91**

Total Financial assets

(million euros)	12/31/2022		12/31/2021	
	Adjusted carrying amount	Effective interest rate (%)	Adjusted carrying amount	Effective interest rate (%)
Cash and cash equivalents	2,621	0.93	6,092	0.00
Securities	2,428	1.28	3,037	1.08
Other receivables	188	3.11	364	3.40
Total	**5,237**	**1.17**	**9,493**	**0.47**

As for financial assets, the weighted average effective interest rate is not essentially influenced by the existence of derivatives.

As for market risk management using derivatives, reference should be made to the Note "Derivatives".

Credit risk

Exposure to credit risk for the TIM Group consists of possible losses that could arise from the failure of either commercial or financial counterparties to fulfill their assumed obligations. To measure this risk over time for impairment of financial assets (trade receivables due from customers included), the introduction of IFRS 9 required switching from the incurred loss model pursuant to IAS 39 to the expected credit loss model.

Such exposure mainly stems from general economic and financial factors, the potential occurrence of specific insolvency situations of some borrowers and other more strictly technical-commercial or administrative factors.

TIM Group's maximum theoretical exposure to credit risk is represented by the carrying amount of the financial assets and trade receivables recorded in the financial statements, excluding guarantees received, described in the Note "Disputes and pending legal actions, other information, commitments and guarantees".

Risk related to trade receivables is managed using customer scoring and analysis systems. For specific categories of trade receivables, the Group also makes use of factoring, mainly on a "non-recourse" basis.

Provision charges for bad debts are recorded for specific credit positions that have an element of individual risk. On credit positions that do not have such characteristics, provision charges are recorded by customer segment according to the average uncollectibility estimated on the basis of statistics. Further details are provided in the Note "Trade and miscellaneous receivables and other current assets".

Financial assets other than trade receivables are written down for impairment on the basis of a general model which recognizes expected credit losses over the following 12 months, or over the residual life of the asset in the event of a substantial worsening of its credit risk. The expected credit loss is calculated based on the default probability and the percentage of credit that cannot be recovered in the event of a default (the loss given default).

The model adopted to calculate the expected credit loss is based on the Bloomberg Credit Risk Model, a model developed by Bloomberg which, starting from Merton's distance-to-default ("DD") concept, estimates the probability of default together with the recovery rate. At the same time, the loss given default is defined as the non-recoverable component of the post-default financial asset.

In particular, the DD - based on balance sheet data - is enriched with a series of additional information by country (macroeconomic, risk), business sector and individual company, as well as accounting adjustments aimed at ensuring uniformity of the model's outputs; finally, through a non-linear function of the DD, the default probability is obtained.

In order to improve credit risk management and relieve pressure on working capital, with specific reference to the offers for the Consumer market involving the option of paying for products by installments, starting February 1, 2021, the company TIMFin has been operating, the result of the corporate joint venture between Santander Consumer Bank (SCB) and TIM.

In 2022, TIMFin expanded the areas of operation, offering finance to also support sales made on the web store channel Tim.it, in addition to covering the physical stores as it had already been doing since the first year of operation.

Moreover, as regards credit risk relating to the asset components which contribute to the determination of "Net financial debt", it should be noted that the management of the Group's liquidity is guided by conservative criteria and is principally based on the following:

- Money market management: the investment of temporary excess cash resources;
- Bond portfolio management: the investment of medium-term liquidity, as well as the improvement of the average yield of the assets.

In order to mitigate the risk of the non-fulfillment of the obligations undertaken by the counterparty, deposits of the European companies are made with leading banking and financial institutions rated no lower than investment grade and with a non-negative outlook, and investments by the companies in South America are made with leading local counterparties. Moreover, deposits are made generally for periods of less than three months. With regard to other temporary investments of liquidity, there is a bond portfolio in which the investments have a low risk level. All investments have been carried out in compliance with the Group Guidelines on "Management and control of financial risk".

In order to minimize credit risk, the Group also pursues a diversification policy for its investments of liquidity and allocation of its credit positions among different banking counterparties. Consequently, there are no significant positions with any one single counterparty.

Liquidity risk

The Group pursues the objective of achieving an "adequate level of financial flexibility", which is expressed by maintaining a current treasury margin to cover the refinancing requirements at least for the next 12 months with irrevocable bank lines and liquidity.

At December 31, 2022, the liquidity margin available for the TIM Group is 9,001 million euros, with a decrease of 4,152 million euros with respect to end 2021 (13,153 million euros). Moreover, on January 20, 2023, TIM issued a 5-year Bond for an amount of 850 million euros and a coupon of 6.875%.
17% of gross financial debt at December 31, 2022 (nominal repayment amount) will become due in the next 12 months.

Current financial assets at December 31, 2022, together with unused committed bank lines, are sufficient to fully cover the Group's financial liabilities due for the next 18 months.

The following tables report the contractual cash flows, not discounted to present value, related to gross financial debt at nominal repayment amounts and the interest flows, determined using the terms and the interest and exchange rates in place at December 31, 2022. The portions of principal and interest of the hedged liabilities includes both the disbursements and the receipts of the related hedging instruments. Specifically, the interest portions of "Loans and other financial liabilities" also include those relating to derivatives hedging for both loans and bonds.

Financial liabilities – Maturities of contractually expected disbursements

		maturing by 12/31 of the year:						
(million euros)		**2023**	**2024**	**2025**	**2026**	**2027**	**After 2027**	**Total**
Bonds	Principal	2,423	3,406	2,000	1,750	1,250	6,723	17,552
	Interest portion	772	653	539	480	419	3,611	6,474
Loans and other financial liabilities (*)	Principal	962	1,021	1,419	2,249	727	170	6,548
	Interest portion	108	32	(12)	(70)	(82)	(854)	(878)
Finance lease liabilities	Principal	786	1,178	593	505	447	1,873	5,382
	Interest portion	405	345	286	231	199	753	2,219
Non-current financial liabilities	**Principal**	**4,171**	**5,605**	**4,012**	**4,504**	**2,424**	**8,766**	**29,482**
	Interest portion	**1,285**	**1,030**	**813**	**641**	**536**	**3,510**	**7,815**
Current financial liabilities	**Principal**	**1,109**	**—**	**—**	**—**	**—**	**—**	**1,109**
	Interest portion	**25**	**—**	**—**	**—**	**—**	**—**	**25**
Total	**Principal**	**5,280**	**5,605**	**4,012**	**4,504**	**2,424**	**8,766**	**30,591**
	Interest portion	**1,310**	**1,030**	**813**	**641**	**536**	**3,510**	**7,840**

(*) These include hedging and non-hedging derivatives.

Derivatives on financial liabilities – Contractually expected interest flows

(million euros)	maturing by 12/31 of the year: 2023	2024	2025	2026	2027	After 2027	Total
Disbursements	306	247	223	223	222	1,522	2,743
Receipts	(423)	(369)	(334)	(334)	(334)	(2,454)	(4,248)
Hedging derivatives – net (receipts) disbursements	**(117)**	**(122)**	**(111)**	**(111)**	**(112)**	**(932)**	**(1,505)**
Disbursements	334	193	70	154	139	143	1,033
Receipts	(237)	(145)	(41)	(141)	(135)	(148)	(847)
Non-Hedging derivatives – net (receipts) disbursements	**97**	**48**	**29**	**13**	**4**	**(5)**	**186**
Total net disbursements (receipts)	**(20)**	**(74)**	**(82)**	**(98)**	**(108)**	**(937)**	**(1,319)**

Market value of derivative instruments

In order to determine the fair value of derivatives, the TIM Group uses various valuation models.

The mark-to-market calculation is determined by the present value discounting of the interest and notional future contractual flows using market interest rates and exchange rates.

The notional amount of IRS does not represent the amount exchanged between the parties and, therefore, is not a measurement of credit risk exposure, which, instead, is limited to the amount of the difference between the interest rates paid/received.

The market value of CCIRSs, on the other hand, also depends on the differential between the reference exchange rate at the date of signing the contract and the exchange rate at the date of measurement, since CCIRSs involve the exchange of the reference interest and principal, in the respective denomination currencies.

Options are measured according to the Black & Scholes or Binomial models and involve the use of various measurements factors, such as: the lifetime horizon of the option, the risk-free rate of return, current price, volatility and any cash flows (e.g. dividend) of the underlying financial instrument, and the exercise price.

NOTE 19
DERIVATIVES

For hedge accounting we continued to apply the rules established by IAS 39.

Derivative financial instruments are used by the TIM Group to hedge its exposure to foreign exchange rate risk, to manage interest rate risk and to diversify the parameters of debt so that costs and volatility can be reduced to within predetermined operational limits.

Derivative financial instruments existing at December 31, 2022 are principally used to manage debt positions. They include interest rate swaps (IRSs) used to reduce the interest rate exposure of fixed-rate bank loans and bonds, as well as cross currency and interest rate swaps (CCIRSs), currency forwards and foreign exchange options to convert the loans/receivables secured in currencies different from the functional currencies of the various Group companies.

IRS transactions, provide for or may entail, at specified maturity dates, the exchange of flows of interest, calculated on the notional amount, at the agreed fixed or variable rates.

The same also applies to CCIRS transactions which, in addition to the settlement of periodic interest flows, may provide for the exchange of principal, in the respective currencies of denomination, at maturity and possibly spot.

Hedging: economic relationship between underlying instrument and derivatives

Hedging relationships recorded in hedge accounting at 12/31/2022 belong to two categories: i) hedging of the fair value of bond issues denominated in euros and ii) hedging of cash flows from income flows of bond issues and future trade items denominated in currencies other than the Euro.

In the first case, the hedged risk is represented by the fair value of the bond attributable to euro interest rates and is hedged by IRS. The current value of both the underlying and derivative instruments, depends on the structure of the Euro market interest rates at the basis of the calculation of discount factors and floating interest flows of the derivative. In particular, interest rate fluctuations translate as changes in the discount factors of the fixed-interest expense flow on the underlying instrument; on the derivative, changes in the discount factor of interest income will occur, as well as changes in the nominal flow of variable interest (only partially corrected by the discounting effect). The effects induced on the derivative are opposite, in accounting terms, to the effects on the underlying instrument.

In the second case, relating to the bond issues, the hedged risk is represented by the variability in cash flows (and the repayment of the nominal amount) generated by exchange rates; hedging comprises combinations of IRS and CCIRS that synthetically transform fixed rate foreign currency income flows into fixed rate euro flows. In this case, exchange rate fluctuations will usually produce physiologically opposite effects on the underlying instrument and on the derivative, as the receivable leg of the latter faithfully reflects the underlying instrument, while the payable leg is denominated in euros, and is therefore insensitive to the exchange rate. As regards the commercial forecast transactions, the risk hedged is always ascribed to the variability of the cash flow linked to exchange rates, but the hedge is assured through an active deposit denominated in the same currency as the items hedged; the write-backs/write-downs of the deposit in foreign currency generated by oscillations in the exchange rate are structurally the same and opposite to the impacts produced on the underlying items.

Hedges: determination of the hedge ratio

The types of hedging implemented by the Group require the adoption of a hedge ratio equal to 1:1, as the types of risk hedged (interest rate and exchange rate risks) are such as to generate economic effects in the underlying instruments that can only be offset by the same notional quantities of derivative instruments.

Hedges: potential sources of ineffectiveness

The contractualization of derivatives to hedge financial risks takes place at arm's length and aims to completely neutralize the effects produced by such instruments.

However, in practice, both fair value hedges and cash flows hedges, although financially perfect, may not guarantee an absolute accounting effectiveness due to the many counterparty banks involved, to the peculiar nature of certain derivatives in terms, for example, of fixing and/or indexing of variable parameters, and to the possible imperfect coincidence between critical terms.

The first table indicates total financial derivatives of the TIM Group at December 31, 2022 and 2021; in compliance with standard IFRS 7, notional amounts are shown with reference to all the derivative instruments involved in the hedges.

The following tables break down financial derivatives by type of risk for each kind of hedging, separating financial assets and liabilities. For CCIRS, the notional amount refers to the contractual value in euros, for IRS in a currency other than the euro, the value is indicated at the market exchange rate.

Type (million euros)	**Hedged risk**	**Notional amount at 12/31/2022**	**Notional amount at 12/31/2021**	**Mark to Market Spot* (Clean Price) at 12/31/2022**	**Spot Mark-to-Market* (Clean Price) at 12/31/2021**
Interest rate swaps	Interest rate risk	300	300	—	3
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	—	—	—	—
Total Fair Value Hedge Derivatives		**300**	**300**	**—**	**3**
Interest rate swaps	Interest rate risk	4,994	4,855	249	375
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	5,184	5,195	770	173
Total Cash Flow Hedge Derivatives		**10,178**	**10,050**	**1,019**	**548**
Total Non-Hedge Accounting Derivatives		**2,638**	**2,702**	**23**	**60**
Total TIM Group's Derivatives		**13,116**	**13,052**	**1,042**	**611**

* The Spot Mark-to-Market above represents the market valuation of the derivative, net of the accrued portion of the flow in progress.

The positions in non hedge accounting derivatives also include IRS Euros for a total notional amount of 1,400 million euros; specifically, these are fair value hedges of bond loans in euros, maturing in January 2024 and which were discontinued in 2021.

In the same item the following are also noted:

- the value - equal to a fair value of 15 million euros (liabilities) - of the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction;
- the value of the right held by TIM Brasil to subscribe shares of the Brazilian C6 Bank - of 112 million euros - on the basis of a commercial agreement signed by the two companies in March 2020.

Fair value hedges (million euros)	Accounting item		Notional value	Carrying amount	Change in fair value for the year
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	a)	**300**	**—**	**(3)**
Assets				—	
Liabilities				—	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	b)	—	—	—
Assets				—	
Liabilities				—	
Derivative instruments (spot value)		a)+b)	**300**	**—**	**(3)**
Accruals				1	
Derivative instruments (gross value)				**1**	
Underlying instruments [(1)]	Bonds - Current/non-current liabilities		**300**	**(300)**	
of which fair value adjustment	Fair value adjustment and measurements at amortized cost	c)		—	3
Ineffectiveness		a)+b)+c)			1
Fair value adjustment for hedging settled in advance [(2)]				(83)	

(1) Includes the amortized cost value of bonds currently hedged plus the fair value adjustment.
(2) Referred to bonds no longer hedged, which are therefore not presented in the table.

Cash flow hedges (million euros)	Accounting item		Notional value	Carrying amount	Change in fair value for the year	Change in cumulative fair value
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	a)	**4,994**	**249**	**(126)**	
Assets				403	(727)	
Liabilities				(154)	601	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets.	b)	**5,184**	**770**	**597**	
Assets				981	227	
Liabilities				(211)	371	
Derivative instruments (spot value)		a)+b)	**10,178**	**1,019**	**471**	
Accruals				73		
Derivative instruments (gross value)				**1,092**		
of which equity reserve gains and losses					225	
Determination of ineffectiveness						
Change in derivatives		c)				253
Change in underlying instruments [3]		d)				(253)
Ineffectiveness [4]	Positive fair value adjustment of financial derivatives - non-hedging	c)+d)				6
Equity reserve						
Equity reserve balance				87		
of which due to the fair value of hedging settled in advance				—		
Reclassification to P&L	Negative reversal of the reserve for the fair value adjustment of hedging derivatives (cash flow hedges)				11	

(3) Hypothetical derivatives used in measuring the effectiveness of cash flow hedges.
(4) The ineffectiveness, due to its nature and calculation, does not necessarily coincide with the difference in cumulative changes in the fair value of derivatives and the underlying instrument; the effect due to the adoption of CVA/DVA is not considered.

The change in the equity reserve attributable to the effective hedging component is equal to 254 million euros.

Changes in the equity cash flow hedge reserve (million euros)	Balance 12/31/2021	Change				Balance 12/31/2022
		Hedging instrument gains / losses	Reversal from reclassification	Reversal from fair value adjustment of hedging settled in advance	Other	
	(167)					87
Change in the effective fair value of derivatives		225				
Change in the CVA/DVA		33				
Reversal for ineffectiveness 2019			11			
Amortization in P&L of the fair value of hedging settled in advance				(15)		
Other					—	
Overall change						**254**

None of the parameters represented includes any income tax effect.

The transactions hedged by cash flow hedges will generate cash flows and produce economic effects in the income statement in the periods indicated in the following table:

Denomination currency	**Notional amount in denomination currency** (millions)	**Start of period**	**End of period**	**Rate applied**	**Interest period**	**Hedging of notional amount in euro** (millions)	**Hedging of rate in euro**
GBP	375	Jan-23	May-23	5.875%	Annually	552	5.535%
JPY*	20,000	Jan-23	Oct-29	5.000%	Semiannuall	174	5.940%
JPY**	20,000	Jan-23	Oct-29	0.750%	Semiannuall	138	0.696%
USD	1,000	Jan-23	Nov-33	6.375%	Semiannuall	849	5.994%
USD	1,500	Jan-23	May-24	5.303%	Semiannuall	1,099	4.226%
USD	1,000	Jan-23	Sept-34	6.000%	Semiannuall	794	4.332%
USD	1,000	Jan-23	July-36	7.200%	Semiannuall	791	5.884%
USD	1,000	Jan-23	Jun-38	7.721%	Semiannuall	645	7.470%

* Income cash flows are denominated in USD and calculated on a notional amount of USD 187.6 million.
** Hedging of the sole income cash flow following a step-up on the loan.

The method selected to test the effectiveness retrospectively and, whenever the main terms do not fully coincide, prospectively, for cash flow hedge derivatives and fair value hedge derivatives is the Volatility Risk Reduction (VRR) Test. This test assesses the ratio between the portfolio risk (meaning the derivative and the item hedged) and the risk of the hedged item taken individually. In essence, the portfolio risk must be significantly lower than the risk of the hedged item.

NOTE 20
SUPPLEMENTARY DISCLOSURES ON FINANCIAL INSTRUMENTS
Measurement at fair value

For the purposes of the comparative information between the carrying amounts and fair value of financial instruments, required by IFRS 7, the majority of the non-current financial liabilities of the TIM Group consist of bonds, whose fair value is directly observable in the financial markets, as they are financial instruments that due to their size and diffusion among investors, are commonly traded on the relevant markets (see the Note "Non-current and current financial liabilities"). For other types of financing, however, the following assumptions have been made in determining fair value:

- for variable-rate loans, the nominal repayment amount has been assumed;
- for fixed-rate loans, the present value of future cash flows at the market interest rates of December 31, 2022 has been assumed;
- the carrying amount has been used for some types of loans granted by government institutions for social development purposes, for which fair value cannot be reliably calculated.

Lastly, for the majority of financial assets, their carrying amount is a reasonable approximation of their fair value, since these are short-term investments that are readily convertible into cash.

The fair value measurement of the financial instruments of the Group has been classified in the three levels set out in IFRS 7. In particular, the fair value hierarchy introduces the following levels of input:

- Level 1: quoted prices in active markets;
- Level 2: prices calculated using observable market inputs;
- Level 3: prices calculated using inputs that are not based on observable market data.

The following tables contain, for assets and liabilities at December 31, 2022 and December 31, 2021 and in accordance with the categories established by IFRS 9, the supplementary disclosures on financial instruments required by IFRS 7 and the schedules of gains and losses. They do not include Discontinued operations/Non-current assets held for sale and Liabilities directly associated with Discontinued operations/Non-current assets held for sale.

Key for IFRS 9 categories

	Acronym
Financial assets measured at:	
Amortized cost	**AC**
Fair value through other comprehensive income	**FVTOCI**
Fair value through profit or loss	**FVTPL**
Financial liabilities measured at:	
Amortized cost	**AC**
Fair value through profit or loss	**FVTPL**
Hedging Derivatives	**HD**
Not applicable	**n.a.**

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2022

(million euros)	IFRS 9 categories	Notes	Carrying amount in financial statements at 12/31/2022	Amounts recognized in financial statements			Levels of hierarchy or of fair value			Carrying amount under IFRS 16	Fair Value at 12/31/2022
				Amortized cost	Fair value through other comprehensive income	Fair value through separate income statement	Level 1	Level 2	Level 3		
ASSETS											
Financial assets measured at amortized cost	AC		**6,888**	**6,888**	**—**	**—**					**6,888**
Non-current assets											
Receivables from employees		(10)	*39*	*39*							
Other financial receivables		(10)	*9*	*9*							
Miscellaneous non-current receivables		(11)	*275*	*275*							
Current assets											
Receivables from employees		(10)	*21*	*21*							
Other short-term financial receivables		(10)	*2*	*2*							
Cash and cash equivalents		(10)	*3,555*	*3,555*							
Trade receivables		(14)	*2,874*	*2,874*							
Other current receivables		(14)	*96*	*96*							
Contract assets		(14)	*17*	*17*							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**1,156**	**—**	**1,156**	**—**					**1,156**
Non-current assets											
Other investments		(9)	*116*		*116*		*56*	*20*	*40*		
Securities other than investments		(10)	*—*		*—*		*—*				
Current assets											
Trade receivables		(14)			*—*						
Securities other than investments		(10)	*1,040*		*1,040*		*1,040*				
Financial assets measured at fair value through profit or loss	FVTPL		**572**	**—**	**—**	**572**					**572**
Non-current assets											
Non-hedging derivatives		(10)	*119*			*119*		*119*	*—*		
Current assets											
Securities other than investments		(10)	*406*			*406*	*406*				
Non-hedging derivatives		(10)	*47*			*47*		*47*			
Hedging Derivatives	HD		**1,519**	**—**	**1,518**	**1**					**1,519**
Non-current assets											
Hedging Derivatives		(10)	*1,435*		*1,435*	*—*		*1,435*	*—*		
Current assets											
Hedging Derivatives		(10)	*84*		*83*	*1*		*84*	*—*		
Financial receivables for lease contracts	n.a.		**118**							**118**	**118**
Non-current assets		(10)	*49*							*49*	
Current assets		(10)	*69*							*69*	
Total			**10,253**	**6,888**	**2,674**	**573**	**1,502**	**1,705**	**40**	**118**	**10,253**

The financial instruments belonging to hierarchy level 3 of fair value are represented by the following Other investments recognized as Non-current assets, for which directly or indirectly observable prices on the market are not available:

- Northgate CommsTech Innovations Partners L.P.;
- UV T-Growth;
- Other minor companies.

Northgate CommsTech Innovations Partners L.P. and UV-T Growth was measured based on the latest available Net Asset Values reported by the fund managers.

The other minor companies were measured on the basis of an analysis, deemed reliable, of their main assets and liabilities.

The profit/(loss) recognized in Other components of the Consolidated Statements of Comprehensive Income were recognized within the scope of the Reserve for financial assets measured at fair value through other comprehensive income.

(million euros)	IFRS 9 categories	Notes	Carrying amount in financial statements at 12/31/2022	Amounts recognized in financial statements			Levels of hierarchy or of fair value			Carrying amount under IFRS 16	Fair Value at 12/31/2022
				Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Level 1	Level 2	Level 3		
LIABILITIES											
Financial liabilities measured at amortized cost	AC/HD		**31,939**	**31,939**							**29,975**
Non-current liabilities											
Financial payables (medium/long-term)		(16)	*21,462*	*21,462*							
Current liabilities											
Financial payables (short-term)		(16)	*4,760*	*4,760*							
Trade and miscellaneous payables and other current liabilities		(24)	*5,584*	*5,584*							
Contract liabilities		(24)	*133*	*133*							
Financial liabilities measured at fair value through profit or loss	FVTPL		**129**			**129**					**129**
Non-current liabilities											
Non-hedging derivatives		(16)	*43*			*43*		*28*	*15*		
Current liabilities											
Non-hedging derivatives		(16)	*86*			*86*		*86*	*—*		
Hedging Derivatives	HD		**427**		**427**	**—**					**427**
Non-current liabilities											
Hedging Derivatives		(16)	*234*		*234*	*—*		*234*	*—*		
Current liabilities											
Hedging Derivatives		(16)	*193*		*193*	*—*		*193*	*—*		
Finance lease liabilities	n.a.		**5,467**							**5,467**	**5,404**
Non-current liabilities		(16)	*4,597*							*4,597*	
Current liabilities		(16)	*870*							*870*	
Total			**37,962**	**31,939**	**427**	**129**	**—**	**541**	**15**	**5,467**	**35,935**

Note that financial liabilities include a financial instrument for an amount of 15 million euros, belonging to hierarchy level 3 of fair value, for which directly or indirectly observable prices on the market are not available. This financial liability refers to the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

The measurement of the economic value of the financial liability has been taken using a valuation model defined internally by TIM. Through an econometric approach, the correlation has been first estimated between the targets set at a national level and a series of macro economic and social-demographic variables. Then taking into account the uncertainty as to how these variables will evolve and the market share of FiberCop, through Monte Carlo simulation, a series of possible developments of the phenomenon was calculated and the expected value of the financial liability, determined.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2021

(million euros)	IFRS 9 categories	Notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements: Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Levels of hierarchy or of fair value: Level 1	Level 2	Level 3	Carrying amount under IFRS 16	Fair Value at 12/31/2021
ASSETS											
Financial assets measured at amortized cost	AC		**10,115**	**10,115**	**—**	**—**					**10,115**
Non-current assets											
Receivables from employees		(10)	*39*	*39*							
Other financial receivables		(10)	*211*	*211*							
Miscellaneous non-current		(11)	*144*	*144*							
Current assets											
Receivables from employees		(10)	*12*	*12*							
Other short-term financial receivables		(10)	*9*	*9*							
Cash and cash equivalents		(10)	*6,904*	*6,904*							
Trade receivables		(14)	*2,675*	*2,675*							
Other current receivables		(14)	*101*	*101*							
Contract assets		(14)	*20*	*20*							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**1,671**	**—**	**1,671**	**—**					**1,671**
Non-current assets											
Other investments		(9)	*156*		*156*		*92*	*22*	*42*		
Securities other than investments		(10)	*—*		*—*		*—*				
Current assets											
Trade receivables		(14)			*—*						
Securities other than investments		(10)	*1,515*		*1,515*		*1,515*				
Financial assets measured at fair value through profit or loss	FVTPL		**875**	**—**	**—**	**875**					**875**
Non-current assets											
Non-hedging derivatives		(10)	*100*			*100*		*100*	*—*		
Current assets											
Securities other than investments		(10)	*734*			*734*	*734*				
Non-hedging derivatives		(10)	*41*			*41*		*41*			
Hedging Derivatives	HD		**2,015**	**—**	**2,012**	**3**					**2,015**
Non-current assets											
Hedging Derivatives		(10)	*1,935*		*1,933*	*2*		*1,935*	*—*		
Current assets											
Hedging Derivatives		(10)	*80*		*79*	*1*		*80*	*—*		
Financial receivables for lease contracts	n.a.		**101**							**101**	**101**
Non-current assets		(10)	*45*							*45*	
Current assets		(10)	*56*							*56*	
Total			**14,777**	**10,115**	**3,683**	**878**	**2,341**	**2,178**	**42**	**101**	**14,777**

(million euros)	IFRS 9 categories	Notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements			Levels of hierarchy or of fair value		Carrying amount under IFRS 16	Fair Value at 12/31/2021
				Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Level 1	Level 2		
LIABILITIES										
Financial liabilities measured at amortized cost	AC/HD		**35,096**	**35,096**						**36,077**
Non-current liabilities										
Financial payables (medium/long-term)		(16)	*22,083*	*22,083*						—
Current liabilities										
Financial payables (short-term)		(16)	*5,847*	*5,847*						—
Trade and miscellaneous payables and other current liabilities		(24)	*7,056*	*7,056*						
Contract liabilities		(24)	*110*	*110*						
Financial liabilities measured at fair value through profit or loss	FVTPL		**53**			**53**				**53**
Non-current liabilities										
Non-hedging derivatives		(16)	*17*			*17*		*2*		
Current liabilities										
Non-hedging derivatives		(16)	*36*			*36*		*36*		
Hedging Derivatives	HD		**1,399**		**1,399**	**—**				**1,399**
Non-current liabilities										
Hedging Derivatives		(16)	*1,337*		*1,337*	—		*1,337*		
Current liabilities										
Hedging Derivatives		(16)	*62*		*62*	—		*62*		
Finance lease liabilities	n.a.		**4,715**						**4,715**	**5,542**
Non-current liabilities		(16)	*4,064*						*4,064*	
Current liabilities		(16)	*651*						*651*	
Total			**41,263**	**35,096**	**1,399**	**53**	**—**	**1,437**	**4,715**	**43,071**

Gains and losses by IAS 9 category - Year 2022

(million euros)	IFRS 9 categories	Net gains/(losses) 2022	of which interest
Assets measured at amortized cost	AC	(181)	106
Assets and liabilities measured at fair value through profit or loss	FVTPL	(141)	
Assets measured at fair value through other comprehensive income	FVTOCI	2	
Liabilities measured at amortized cost	AC	(1,056)	940
Total		**(1,376)**	**1,046**

Gains and losses by IAS 9 category - Year 2021

(million euros)	IFRS 9 categories	Net gains/(losses) 2021	of which interest
Assets measured at amortized cost	AC	(275)	62
Assets and liabilities measured at fair value through profit or loss	FVTPL	(10)	
Assets measured at fair value through other comprehensive income	FVTOCI	5	
Liabilities measured at amortized cost	AC	(958)	870
Total		**(1,238)**	**932**

NOTE 21
EMPLOYEE BENEFITS

This item rose by 93 million euros compared to December 31, 2021. The figure breaks down as follows:

(million euros)		12/31/2020	Increases/ Present value	Decrease	Exchange differences and other changes	12/31/2021
Provision for employee severance indemnities	**(a)**	**701**	**20**	**(48)**	**5**	**678**
Provisions for pension plans		23	—	(2)	—	21
Provision for termination benefit incentives and corporate restructuring		39	8	(44)	(3)	—
Total other employee benefits	**(b)**	**62**	**8**	**(46)**	**(3)**	**21**
Total	**(a+b)**	**763**	**28**	**(94)**	**2**	**699**
of which:						
non-current portion		724				699
current portion (*)		39				—

(*) The current portion refers only to Other provisions for employee benefits.

(million euros)		12/31/2021	Increases/ Present value	Decrease	Exchange differences and other changes	12/31/2022
Provision for employee severance indemnities	**(a)**	**678**	**(61)**	**(64)**		**553**
Provision for pension and other plans		21	(3)	(2)		16
Provision for termination benefit incentives and corporate restructuring		—	224		(1)	223
Total other employee benefits	**(b)**	**21**	**221**	**(2)**	**(1)**	**239**
Total	**(a+b)**	**699**	**160**	**(66)**	**(1)**	**792**
of which:						
non-current portion		699				684
current portion (*)		—				108

(*) The current portion refers only to Other provisions for employee benefits.

The **Provision for employee severance indemnities (T.F.R.)** only refers to Italian companies and decreased on the whole by 125 million euros. The decreases of 64 million euros relating to indemnities paid during the year to employees who terminated employment or for advances.

The changes recorded in "Increases/Present value" are as follows:

(million euros)	2022	2021
(Positive)/negative effect of curtailment	—	—
Current service cost (*)	—	—
Finance expenses	12	5
Net actuarial (gains) losses for the year	(73)	15
Total	**(61)**	**20**
Effective return on plan assets	there are no assets servicing the plan	

(*) The portions intended for the INPS Treasury Fund or for the supplementary pension funds have been recorded under "Employee benefits expenses" under "Social security expenses". The latter account is used only for the severance indemnity expenses of companies with less than 50 employees.

The net actuarial gains recognized at December 31, 2022 amounted to 73 million euros (net actuarial gains of 15 million euros in 2021), and are essentially connected with both staff turnover and changes to the technical-economic parameters used in the valuation: the inflation rate forecast went from 1.75% at December 31, 2021 to 2.30% at December 31, 2022; the discount rate increased, going from the 0.98% used at December 31, 2021 to 3.63% at December 31, 2022.

According to national law, the amount of provision for employee severance indemnities to which each employee is entitled depends on the period of service and must be paid when the employee leaves the company. The amount of severance indemnity due upon termination of employment is calculated on the basis of the period of employment and the taxable compensation of each employee. This liability is adjusted annually based on the official cost-of-living index and legally-set interest. The liability is not associated with any vesting condition or period or any funding obligation; accordingly, there are no assets servicing the provision. The liability is recognized net of the partial prepayments of the provision and payments of the amounts obtained by employees for the reasons permitted by the applicable regulations.

Under the regulations introduced by Italian Legislative Decree 252/2005 and Law no. 296/2006 with which, for companies with at least 50 employees, the severance indemnities accruing from 2007 are assigned, as elected by the employees, to either the INPS Treasury Fund or to supplementary pension funds and take the form of a "defined contribution plan".

However, for all companies, the revaluations of the amounts in the provision for employee severance indemnities existing at the election date, and also the amounts accrued and not assigned to supplementary pension plans for companies with less than 50 employees, are retained in the provision for employee severance indemnities. In accordance with IAS 19, the provision has been recognized as a "defined benefit plan".

In application of IAS 19, employee severance indemnities have been calculated using the "Projected Unit Credit Method" as follows:

- the future possible benefits which could be paid to each employee registered in the program in the event of retirement, death, disability, resignation etc. have been projected on the basis of a series of financial assumptions (cost-of-living increases, interest rate, increase in compensation etc.). The estimate of future benefits includes any increases for additional service seniority, as well as the estimated increase in the compensation level at the measurement date – only for employees of companies with less than 50 employees during the year 2006;
- the average present value of future benefits has been calculated, at the measurement date, on the basis of the annual interest rate adopted and of the probability that each benefit actually has to be paid;
- the liability of each company concerned has been calculated as the average present value of future benefits that will be generated by the existing provision at the measurement date, without considering any future accruals (for companies with at least 50 employees during the year 2006) or by identifying the amount of the average present value of future benefits which refer to the past service already accrued by the employee in the company at the measurement date (for the others), i.e. adopting the "service pro-rate".

The following assumptions have been made:

FINANCIAL ASSUMPTIONS	**Executives**	**Non-executives**
Inflation rate	**2.30% per annum**	**2.30% per annum**
Discount rate	**3.63% per annum**	**3.63% per annum**
Employee severance indemnities annual increase rate	**3.225% per annum**	**3.225% per annum**
Annual real wage growth:		
equal to or less than 40 years of age	1.0% per annum	1.0% per annum
over 40 but equal to or less than 55 years of age	0.5% per annum	0.5% per annum
over 55 years of age	0.0% per annum	0.0% per annum

DEMOGRAPHIC ASSUMPTIONS	**Executives**	**Non-executives**
Probability of death	Mortality tables RG48 published by Ragioneria Generale dello Stato	Mortality tables RG48 published by Ragioneria Generale dello Stato
Probability of disability	INPS tables divided by age and sex	INPS tables divided by age and sex
Probability of resignation:		
up to 40 years of age	2.00%	1.00%
from 41 to 50 years of age	2.00%	0.50%
from 51 to 59 years of age	1.00%	0.50%
from 60 to 64 years of age	None	0.50%
aged 65 and over	None	None
Probability of retirement	100% on achievement of the AGO requirements aligned with D.L. 4/2019	
Probability of receiving at the beginning of the year an advance from the provision for severance indemnities accrued equal to 70%	1.5% per annum	1.5% per annum

The application of the above assumptions resulted in a liability for employee severance indemnities of 553 million euros at December 31, 2022 (678 million euros at December 31, 2021).

Reported below is a sensitivity analysis for each significant actuarial assumption adopted to calculate the liability as at year end, showing how the liability would have been affected by changes in the relevant actuarial assumption that were reasonably possible at that date, stated in amounts.

The weighted average duration of the obligation of the Parent amounted to 7.9 years.

CHANGES IN ASSUMPTIONS	Amounts (million euros)
Turnover rate:	
+0.25 p.p.	(1)
- 0.25 p.p.	1
Annual inflation rate:	
+0.25 p.p.	(15)
- 0.25 p.p.	15
Annual discount rate:	
+0.25 p.p.	19
- 0.25 p.p.	(21)

The **Provision for pension and other plans** amounted to 16 million euros at December 31, 2022 (21 million euros at December 31, 2021) and mainly represented pension plans in place at foreign companies of the Group.

The provisions for termination benefit incentives and corporate restructuring increased in 2022 by 223 million euros and are mainly linked to outgoing managerial and non-managerial staff, envisaged according to the application of art. 4 of Law no. 92 of June 28, 2012 and former art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed, during the year, with the trade unions by the Parent Company TIM S.p.A., by Telecom Italia Sparkle, by Telecontact, by Noovle, by Olivetti, by Telecom Italia Trust Technologies and by Telsy.

NOTE 22 PROVISIONS

These decreased by 234 million euros compared to December 31, 2021. The breakdown is as follows:

(million euros)	12/31/2021	Increase	Taken to income	Used directly	Exchange differences and other changes	12/31/2022
Provision for taxation and tax risks	**73**	8	(1)	(5)	14	**89**
Provision for restoration costs	**281**	21	—	(11)	43	**334**
Provision for legal disputes	**441**	75	—	(71)	(1)	**444**
Provision for commercial risks	**677**	94	(15)	(412)	18	**362**
Provision for risks and charges on investments and corporate-related transactions	**12**	—	—	(1)	—	**11**
Other provisions	**4**	11	—	(1)	—	**14**
Total	**1,488**	**209**	**(16)**	**(501)**	**74**	**1,254**
of which:						
non-current portion	**926**					**910**
current portion	**562**					**344**

The non-current portion of provisions for risks and charges mainly relates to some of the provision for commercial risks, the provision for legal disputes and the provision for restoration costs. More specifically, in accordance with accounting policies, the total amount of the provision for restoration costs is calculated by re-measuring the amounts for which a probable outlay is envisaged, based on the estimated inflation rates for the individual due dates, and subsequently discounted to the reporting date based on the average cost of debt, taking into account expected cash outflows.

The **provision for taxation and tax risks** increased by 16 million euros compared to December 31, 2021.

The **provision for restoration costs** refers to the provision for the costs expected to be incurred for the restoration of leased properties and sites used in the mobile sector and for the dismantling of certain assets (particularly batteries and wooden piling); it mainly refers to the Parent TIM S.p.A (150 million euros), the company FiberCop (131 million euros) and the Brazil Business Unit (52 million euros).

The **provision for legal disputes** included the provision for litigation with other counterparties and employees. The amount at December 31, 2022 included 329 million euros for the Domestic Business Unit and 115 million euros for the Brazil Business Unit.

The **provision for commercial risks** relates to the Domestic Business Unit and mainly the Parent Company TIM S.p.A.. During 2022, it reduced by 315 million euros mainly in view of:

- a use for 346 million euros of the Provision for contractual risks on onerous contracts (IAS 37) recorded in the 2021 financial statements relating to ongoing relations with some counterparties for the offer of multimedia content and representative of the net present value of the negative margin connected with these partnerships;

- a provision made by TIM S.p.A. of 41 million euros for onerous contracts relating to a multi-year agreement concluded in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

The **provision for risks and charges on investments and corporate-related transactions** reduced by 1 million euros on the previous year.

Other provisions for risks and charges come to 14 million euros and are essentially attributable to the Domestic Business Unit.

NOTE 23

MISCELLANEOUS PAYABLES AND OTHER NON-CURRENT LIABILITIES

These decreased by 267 million euros compared to December 31, 2021. The figure breaks down as follows:

(million euros)		12/31/2022	12/31/2021
Miscellaneous payables (non-current)			
Payables to social security agencies		400	452
Income tax payables (*)		—	231
Other payables		58	7
	(a)	**458**	**690**
Other non-current liabilities			
Deferred revenues from customer contracts (Contract liabilities)		87	88
Other deferred revenue and income		354	368
Capital grants		247	267
	(b)	**688**	**723**
Total	(a+b)	**1,146**	**1,413**

(*) Analyzed in the Note "Income tax expense".

Miscellaneous payables (non-current) include:

- **payables to social security agencies** amounting to 400 million euros, mainly relating to the non-current debt position with INPS for the application of the agreements signed with the trade unions relating to the application of Article 4 of Law no. 92 of June 28, 2012 and former Art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015 (for further details see the Note “Employee benefits expenses”). This debt position (non-current and current portion) is as follows:

(million euros)	12/31/2022	12/31/2021
Non-current payables		
Due from 2 to 5 years after the end of the reporting period	385	443
Due beyond 5 years after the end of the reporting period	15	9
	400	**452**
Current payables	**244**	**258**
Total	**644**	**710**

- **other payables** equal to 58 million euros at December 31, 2021 referring mainly to the Brazil Business Unit.

The **other non-current liabilities** include:

- **Deferred revenues from contracts with customers (contract liabilities)** of 87 million euros (88 million euros at December 31, 2021) which are reversed to the income statement according to the duration of the contractual obligations between the parties, averaging 24 months; therefore, the balance as at December 31, 2022 will be reversed to the income statement generally by 2024. In particular, the item includes:
  - TIM S.p.A. deferred revenues for subscription charges and rent and maintenance payments (41 million euros);
  - TIM S.p.A. deferred revenues for network access subscription charges (21 million euros);
  - Deferred revenues of TIM S.p.A. for outsourcing charges (17 million euros);
  - Deferred revenues for activation and installation fees charged on new TIM S.p.A. customer contracts (3 million euros): in this regard, it is noted that under IFRS 15 activation/installment revenues are allocated to other contract obligations and recognized throughout the period of performance of the contract, as they do not relate to separate performance obligations.

- **Other deferred revenue and income** totaling 354 million euros; the item consisted of the non-current portion (approx. 113 million euros) of the deferred gain on the sale and lease-back of telecommunication towers by the Brazil Business Unit; this item also includes deferred revenues related to agreements for the sale of the transmission capacity.
- **Capital grants** of 247 million euros: the item represents the component still to be released to the income statement based on the remaining useful life (estimated at around 18 years) of the assets that the grants refer to and is mainly connected to the realization of the infrastructures on the Ultrabroadband-UBB and Broadband-BB projects.

NOTE 24

TRADE AND MISCELLANEOUS PAYABLES AND OTHER CURRENT LIABILITIES

This item fell by 1,274 million euros compared to December 31, 2021. The figure breaks down as follows:

(million euros)		12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial Instruments*
Trade payables					
Payables due to suppliers		4,943	*4,943*	4,745	*4,745*
Payables to other telecommunications operators		352	*352*	416	*416*
	(a)	5,295	***5,295***	5,161	***5,161***
Tax payables	(b)	216		168	
Miscellaneous payables					
Payables for employee compensation		247		176	
Payables to social security agencies		353		386	
Payables for TLC operating fee		324		165	
Dividends approved, but not yet paid to shareholders		48	*48*	36	*36*
Other		329	*241*	1,968	*1,859*
Employee benefits (except for employee severance indemnities) for the current portion expected to be settled within 12 months		108		—	
Provisions for risks and charges for the current portion expected to be settled within 12 months		344		562	
	(c)	1,753	***289***	3,293	***1,895***
Other current liabilities					
Liabilities from customer contracts (Contract liabilities)		840	*133*	757	*110*
Other deferred revenue and income		59		66	
Other		36		28	
	(d)	935	***133***	851	***110***
Total	(a+b+c+d)	8,199	5,717	9,473	***7,166***

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

Trade payables amounting to 5,295 million euros (5,161 million euros at December 31, 2021), mainly refer to:

- TIM S.p.A. (3,745 million euros); the increase on December 31, 2021 reflects the dynamics of payments relating to bills payable;
- Brazil Business Unit (901 million euros); the decrease on December 31, 2021 is connected with the partial payment of payables connected with the November 2021 purchase of 5G licenses.

At December 31, 2022, trade payables due beyond 12 months totaled 59 million euros (73 million euros at December 31, 2021) and are mainly represented by payables of the Brazil Business Unit for the purchase and renewal of telecommunications licenses, also including the payable due to Entidade Administradora da Conectividade de Escolas (EACE) for the development of certain infrastructural projects in Brazil in connection with the assignment of the rights of use of frequencies for 5G services.

Tax payables amounted to 216 million euros and mainly consisted of both the tax payables of the Brazil Business Unit (102 million euros) and the payables of TIM S.p.A., mainly relating to the amount owed to the tax authorities for tax payables withheld as withholding agent (68 million euros), the VAT payable (25 million euros) and the amount payable for the government concession tax (4 million euros).

Miscellaneous payables include:

- the current debt position towards INPS in view of the application of the agreements signed with the trade unions regarding the application of Art. 4 of Italian Law no. 92 of June 28, 2012 and former Art. 41, subsection 5bis, Italian Legislative Decree no. 148/2015;
- the debt position of the Brazil Business Unit connected with the contractual obligations linked to the acquisition of the mobile assets of the Oi Group (134 million euros). Further details are provided in the Note "Disputes and pending legal actions, other information, commitments and guarantees".

Also note that on September 30, 2022, TIM S.p.A. paid the fifth and final installment, of 1,738 million euros, out of the total of 2,399 million euros due in fulfillment of the undertakings made by the Company following the award of the rights to use mobile frequency bandwidths pursuant to the "5G Auction" held in 2018 by the Ministry for Economic Development.

Other current liabilities amounted to 935 million euros at December 31, 2022 (851 million euros at December 31, 2021). They break down as follows:

- **Liabilities from customer contracts (Contract liabilities)**, totaling 840 million euros. This item includes liabilities to customers related to the obligations of Group companies to transfer goods and services for which have received a price. Liabilities with customers, generally with a maturity of up to 12 months, are shown below; therefore, the figure at December 31, 2022 will be substantially reversed by December 31, 2023.

  In particular:

  - **contract liabilities** amounting to 9 million euros; the item includes bundle contracts (good and services packages) with performance obligations with different timing for the recognition of revenues and consequent deferral of the fees originally recognized. The decrease recognized in the year 2022 (-2 million euros) was mainly linked to the presence of commercial offers that no longer require a fixed duration and the reversal to the income statement of the balance previously accumulated;
  - **customer-related items**, equal to 430 million euros; the item includes trade payables following contractual relationships, such as the payable for prepaid traffic and the subscription fees charged in advance;
  - **progress payments and advances** equal to 56 million euros relating to trade payables following prepayments, such as deposits made by subscribers for telephone calls;
  - **deferred revenues from customer contracts**, equal to 345 million euros essentially include:
    - Parent Company deferred revenues for rent and maintenance fees (193 million euros);
    - Parent Company deferred revenues for interconnection fees (111 million euros);
    - Parent Company deferred revenues on activation and installation of new contracts with customers (4 million euros).
- **Other deferred revenue and income** amounted to 59 million euros. These refer mainly to deferred revenues deriving from contracts for the sale of transmission capacity.
- **Other** , amounting to 36 million euros. They mainly refer to the Parent Company and relate to payables for advances on work in progress on networks.

NOTE 25

DISPUTES AND PENDING LEGAL ACTIONS, OTHER INFORMATION, COMMITMENTS AND GUARANTEES

A description is provided below of the most significant judicial, arbitration and tax disputes in which TIM Group companies are involved at December 31, 2022, as well as those that came to an end during the period.
The TIM Group has posted liabilities totaling 279 million euros for those disputes described below where the risk of losing the case has been considered probable.
It should be noted that for some disputes described below, on the basis of the information available at the closing date of the Annual Financial Report and with particular reference to the complexity of the proceedings, to their progress, and to elements of uncertainty of a technical-trial nature, it was not possible to make a reliable estimate of the size and/or times of possible payments, if any. Moreover, in those cases in which disclosure of information on a dispute could seriously jeopardize the position of TIM or its subsidiaries, only the general nature of the dispute is described.
Lastly, as regards the proceedings with the Antitrust Authority, please note that based on Article 15, subsection 1 of Italian Law 287/1990 ("Antitrust regulations"), the Authority has the right to impose an administrative sanction calculated on the turnover of the Group in cases of breaches considered serious.

a) Significant disputes and pending legal actions

International tax and regulatory disputes

At December 31, 2022, companies belonging to the Brazil Business Unit were involved in tax or regulatory disputes, the outcome of which is estimated as a possible loss totaling around 18.2 billion reais (16.3 billion reais at December 31, 2021), corresponding to approximately 3.3 billion euros at the end of 2022. The main types of litigation are listed below, classified according to the tax to which they refer.

Federal taxes

In relation to the federal level of taxation, the following disputes should be noted:

- disallowance of the tax effects of the merger between the companies of the TIM Brasil Group;
- denial of the SUDENE regional tax benefit, due to alleged irregularities in the management and reporting of the benefit itself;
- challenges regarding offsetting against previous tax losses;
- further challenges regarding the tax deductibility of the amortization of goodwill;
- imposition of income tax on certain types of exchange rate differences;
- imposition of withholding taxes on certain types of payments to foreign entities (for example, payments for international roaming);
- further challenges regarding offsets made between taxes payable and group company credit positions.

Overall, the risk for these cases, considered to be possible, amounts to 3.3 billion reais (3.1 billion reais at December 31, 2021).

State taxes

Within the scope of the state levy, there are numerous challenges regarding ICMS, and in particular:

- challenges concerning the reduction of the tax base due to discounts granted to customers, as well as challenges regarding the use of tax credits declared by group companies, with respect to the return of loaned telephone handsets, and following the detection of contract frauds to the detriment of the companies;
- subjection of some fees owed to group companies and classified by them as fees for services other than telecommunications to ICMS;
- challenges over the use of the "PRO-DF" tax benefit originally granted by some States, and subsequently declared unconstitutional (the challenge refers to the actual credit due to ICMS, declared by the TIM Cellular, now incorporated into TIM S.A., on the basis of the aforementioned tax benefits);
- challenges relating to the use of ICMS credits claimed by Group companies as a result of the acquisition of tangible assets, and in relation to the supply of electricity to the companies, as well as in application of the provisions on acting as a withholding agent;
- fines imposed on group companies for irregularities in tax return compliance;
- challenges of ICMS credits in relation to acting as a withholding agent, applicable when equipment is bought and distributed in different States;
- challenges of ICMS credits deriving from the “special credit” recognized by the company to its prepaid customers, against subsequent top-ups.

Overall, the risk for these cases, considered to be possible, amounts to 9.6 billion reais (8.8 billion reais at December 31, 2021).

Municipal taxes

Among disputes classified with a "possible" degree of risk, there are some relating to municipal taxes for a total amounting to around 1.6 billion reais (around 1.2 billion reais at December 31, 2021).

FUST and FUNTTEL

The main challenges about contributions to the regulatory body (Anatel), and in particular in terms of FUST and FUNTTEL, concern whether or not interconnection revenues should be subject to these contributions.

Overall, the risk for these cases, considered to be possible, amounts to 3.7 billion reais (3.2 billion reais at December 31, 2021).

Golden Power Case

In August 2017 the Prime Minister's office brought proceedings against TIM (as well as Vivendi) in order to verify the fact that TIM has an obligation to notify, pursuant to the “Golden Power” law, Vivendi’s acquisition of corporate control of TIM and the strategic assets it holds. In September 2017, the proceedings in question concluded by affirming that this obligation did exist for TIM with effect from May 4, 2017 (the date of the Shareholders’ Meeting that renewed TIM’s corporate boards).

As a result of this decision by the Presidency of the Council of Ministers, new and separate administrative proceedings started for the imposition on TIM of the financial penalty laid down by the Golden Power law for non-compliance with the aforementioned obligation to notify. These proceedings ended on May 8, 2018 with the imposition of a financial penalty of 74.3 million euros.

The Company, is convinced that it has the legal arguments to demonstrate that it was under no obligation to notify the control exercised over it by Vivendi, filed separate extraordinary appeals to the President of the Republic to request the abrogation of the order of September 2017 and before the Lazio Regional Administrative Court (TAR) against the aforementioned order of May 8, 2018, which imposed a financial penalty, requesting its precautionary suspension. As regards the appeal to the Lazio Regional Administrative Court (TAR) against the provision of May 8, 2018, which imposed the financial penalty, the TAR, in upholding in July 2018 the interim petition lodged by the Company, has suspended payment of the penalty. Subsequently, with a non-definitive ruling in May 2019, the Lazio Regional Administrative Court (TAR): (i) accepted TIM's request for provisional measures to suspend the fine conditional on the offer of the guarantee; (ii) granted the suspension of the procedure to wait for the final judgment in the (injurious) case pending before the President of the Republic regarding the notification obligation, pursuant to the Golden Power provisions; (iii) rejected the procedural objections raised by the defendant administrations.

It should also be noted that in May 2018 a guarantee bond for 74.3 million euros was issued in favor of the Presidency of the Council. TIM had been requested to submit such a bond for its application to Lazio TAR for precautionary suspension of the collection of the fine imposed for alleged breach of Art. 2 of Decree Law 21 of March 15, 2012 (the “Golden Power” law). This surety was renewed in November 2022.

Furthermore, TIM appealed before the Lazio TAR and then appealed before the Council of State against the provision with which Consob, on September 13, 2017, affirmed Vivendi's control over TIM. In December 2020, the Council of State issued a final judgment upholding TIM’s appeal and canceling the provision by Consob, a significant premise to the entire subsequent proceedings of the Presidency of the Council in relation to the obligation to Golden Power notification as described above. On June 14, 2021, Consob submitted an extraordinary appeal to the Court of Cassation on grounds of jurisdiction; TIM filed an appearance, objecting that the appeal is unlawful and inadmissible. Following the hearing in chambers held on October 11, 2022, on January 24, 2023, the order was published whereby the Court of Cassation declared that Consob’s petition was unacceptable, consequently ordering it to pay the dispute expenses.

Antitrust Case A428

At the conclusion of case A428, in May 2013, AGCM (the Italian Competition Authority)imposed two administrative fines of 88,182,000 euros and 15,612,000 euros on TIM for abuse of its dominant position. The Company allegedly (i) hindered or delayed activation of access services requested by OLOs through unjustified and spurious refusals; (ii) offered its access services to final customers at economic and technical conditions that allegedly could not be matched by competitors purchasing wholesale access services from TIM itself, only in those geographic areas of the Country where disaggregated access services to the local network are available, and hence where other operators can compete more effectively with the Company.

TIM appealed against the decision before the Regional Administrative Court (TAR) for Lazio, applying for payment of the fine to be suspended. In particular, it alleged: infringement of its rights to defend itself in the proceedings, the circumstance that the organizational choices challenged by AGCM (the Italian Competition Authority) and allegedly at the base of the abuse of the OLO provisioning processes had been the subject of specific rulings made by the industry regulator (AGCom), the circumstance that the comparative examination of the internal/external provisioning processes had in fact shown better results for the OLOs than for the TIM retail department (hence the lack of any form of inequality of treatment and/or opportunistic behavior by TIM), and (regarding the second abuse) the fact that the conduct was structurally unsuitable to reduce the margins of the OLOs.

In May 2014, the judgment of the Lazio TAR was published, rejecting TIM's appeal and confirming the fines imposed in the original order challenged. In September 2014 the Company appealed against this decision.

In May 2015, with the judgment no. 2497/15, the Council of State found the decision of the court of first instance did not present the deficiencies alleged by TIM and confirmed the AGCM (the Italian Competition Authority) ruling. The company had already proceeded to pay the fines and the accrued interest.

In a decision notified in July 2015, AGCM (the Italian Competition Authority) started proceedings for non-compliance against TIM, to ascertain if the Company had respected the notice to comply requiring it to refrain from undertaking behaviors analogous to those that were the object of the breach ascertained with the concluding decision in case A428 dated May 2013.

On January 13, 2017, TIM was served notice of AGCM’s final assessment, which recognized that TIM had complied in full with the A428 decision and, as such, the conditions for the imposition of a fine for non-compliance were not present.

AGCM (the Italian Competition Authority) recognizes, furthermore, that TIM's behavior subsequently to the 2013 proceedings has been directed towards continuous improvement of its performance in the supply of wholesale access services concerning not only the services which were the subject of the investigation, but also the new Ultrabroadband access services. In assessing compliance, AGCM (the Italian Competition Authority) recognized the positive impact of the implementation, albeit not yet completed, of TIM's New Equivalence Model (NME). The AGCM (the Italian Competition Authority) decision orders TIM to: (i) proceed with the implementation of the NME until its completion which is expected to be by April 30, 2017; (ii) inform the Authority about the performance levels of the systems for providing wholesale access services and about the completion of the corresponding internal reorganization plan by the end of May 2017. The Company quickly complied with both orders, and the Authority communicated its satisfaction on August 9, 2017.

Vodafone lodged an appeal with the Lazio Regional Administrative Court against the final decision in the proceedings for non-compliance taken by AGCM (the Italian Competition Authority). TIM filed an appearance, as in the other lawsuits filed in March 2017 by the operators CloudItalia, KPNQWest Italia and Digitel. With judgments 311 and 312/23 respectively of January 11, 2023, the regional administrative court rejected the appeals lodged by KPNQWest and CloudItalia.

Colt Technology Services - A428

With writ of summons before the Milan Court served in August 2015, the operator Colt Technology Services filed a damages claim based on the A428 decision, requesting compensation for alleged damages suffered from 2009 to 2011 as a result of purportedly inefficient and discriminatory conduct by TIM in the wholesale service supply process. The damage claimed was quantified as 27 million euros in loss of profits for the alleged non-acquisition of new customers, or for the alleged impossibility of supplying new services to the customers it had already acquired; the other party also formulated a request for compensation for the damages to its image and commercial reputation. This case follows the extrajudicial claim for approximately 23 million euros, previously advanced by Colt in June 2015, which the Company rejected in its entirety. TIM filed an appearance, contesting all of the plaintiff's allegations. The case is currently reserved for decision.

COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.) - A428

With writ of summons before the Rome Court, COMM 3000 S.p.A.(formerly KPNQWest Italia S.p.A.) filed a damages claim for a total of 37 million euros in compensation for alleged anticompetitive and abusive conduct over the period 2009–2011, in the form of technical boycotting (refusals to activate wholesale services – KOs); the claim was based on the contents of the decision of AGCM (the Italian Competition Authority) that settled the A428 case. TIM filed an appearance, contesting all of the plaintiff's allegations. In the judgment with ruling in April 2019, the Court of Rome partially received the petitions of COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.), sentencing TIM to pay an amount significantly lower than the amount in the counterparty's damages claim. In June 2019, TIM appealed against the judgment. In the judgment given in April 2021, the Court of Appeal of Rome partly upheld TIM's appeal, reducing the amount of the compensation due to COMM 3000, which was in any case entirely covered by the relevant provision. In November 2021, TIM has appealed to the Court of Cassation over the judgment of the Court of Appeal of Rome in. The company is awaiting scheduling of the hearing for discussion.

Teleunit

With a writ of summons issued in October 2009 before the Milan Appeal Court, Teleunit asked that TIM alleged acts of abuse of its dominant position in the premium services market be ascertained. The plaintiff quantified its damages at a total of approximately 362 million euros. TIM filed an appearance, contesting the claims of the other party.

After the ruling of January 2014 with which the Court of Appeal declared that it was not competent in this matter and referred the case to the Court, Teleunit reinstated the case before the Milan Court the following April. TIM filed an appearance in the reinstated proceedings challenging the plaintiff's claims.

In its judgment of May 2017, the Milan Court rejected Teleunit's claim in its entirety, and ordered the company to pay the legal costs of the case. This judgment was appealed by Teleunit, in June 2017, before the Milan Court of Appeal. TIM filed an appeal challenging the arguments presented by the other party and asking that the judgment in the first instance be fully confirmed. With an order in March 2018 the Milan Court of Appeal declared Teleunit's appeal pursuant to art. 348-bis of the Italian Code of Civil Procedure to be manifestly without foundation, and hence inadmissible. In May 2018 Teleunit appealed the judgment of the Court of Appeal to the Court of Cassation. TIM lodged a counter-appeal seeking confirmation in full of the order being appealed (and thus of the judgment at first instance). The hearing was held in chambers on September 22, 2022. By order published on October 19, 2022, the Court of Cassation declared the petition lodged by Teleunit Ltd inadmissible, ordering it to pay the costs of the dispute to TIM.

Eutelia and Clouditalia Telecomunicazioni - A428

With a writ of summons dated May 2020, Eutelia in Extraordinary Administration and Clouditalia Telecomunicazioni S.p.A., purchaser of Eutelia's TLC branch, brought an action against TIM before the Court of Rome, making claims for damages, of around 40 million euros, for damages allegedly suffered, in the period 2009-2012, following the technical boycott and margin squeeze conduct, subject of the AGCM A428 procedure. TIM filed an appearance, contesting the claims made by the opposing party and formulating a counterclaim, subject to quantification of the damages incurred during the proceedings. On April 1, 2022, AGCM (the Italian Competition Authority) deposited the opinion envisaged by Art. 14, third subsection of Italian Legislative Decree 3/2017, whereby it: (i) proposed certain benchmarks for use to define the counterfactual scenario on which basis to quantify the damages allegedly suffered by Eutelia and Clouditalia; (ii) provided some additional indication and criteria to estimate the various damage items demanded by Eutelia and Clouditalia. At the hearing held on June 15, 2022, the Investigating Judge assigned time to the parties until July 8, 2022, by which to deposit written notes on the implications of the opinion of the AGCM (the Italian Competition Authority) and the contents of any queries to be raised with the court appointed expert. On October 24, the judge lifted the reservation and ordered an expert report on the *an* of TIM's conduct and the *quantum* of any damages suffered by Eutelia and Irideos as a result of such. On November 15, 2022, the court-appointed expert witness was sworn in. The public hearing for the examination of the court-appointed expert witness has been scheduled for October 18, 2023.

Antitrust Case A514

In June 2017 AGCM (the Italian Competition Authority) started proceedings A514 against TIM, to ascertain a possible abuse of its dominant market position in breach of article 102 of the "Treaty on the Functioning of the European Union". The proceedings were started based on some complaints filed in May and June 2017, by Infratel, Enel, Open Fiber, Vodafone and Wind Tre, and concerns a presumed abuse of TIM's dominant position in the market for wholesale access services and for retail services using the Broadband and Ultrabroadband fixed network. In particular, the AGCM (the Italian Competition Authority) hypothesized that TIM had adopted conduct aimed at: i) slowing and hindering the course of the Infratel tender processes so as to delay, or render less remunerative the entry of another operator in the wholesale market; ii) pre-emptively securing customers on the retail market for Ultrabroadband services by means of commercial policies designed to restrict the space of customer contendibility remaining for the competitor operators.

After the start of the proceedings, the Authority's officials carried out an inspection at some of TIM's offices in the month of July 2017. On November 2, 2017, TIM filed a defense brief in which, in support of the correctness of its actions, it challenged all the arguments that the conduct it had allegedly engaged in, and which was the subject of the case, was unlawful.

On February 14, 2018, AGCM (the Italian Competition Authority) resolved to extend the scope of the case to investigate further behavior concerning TIM's wholesale pricing strategy on the market for wholesale access to Broadband and Ultrabroadband, and the use of the confidential information of customers of the alternative operators.

On July 5, 2018 TIM filed proposed undertakings which, if accepted by the Authority, would close the investigation without any offense being established or sanction being administered. The undertakings were considered as admissible by the Authority, that market tested them in August and September.

On October 30, 2018, TIM replied to observations made by third parties and modified its proposed undertakings. With its decision notified on December 4, 2018, AGCM (the Italian Competition Authority) once and for all rejected the proposed series of undertakings as it considered them unsuitable in light of the objections raised.

On March 4, 2019, TIM requested AGCM (the Italian Competition Authority) for an extension of the deadline for closing the proceedings (initially set for May 31, 2019).

On April 10, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until September 30, 2019. On May 17, 2019, AGCM (the Italian Competition Authority) notified TIM of the results of the investigation (CRI). In the CRI, AGCM (the Italian Competition Authority) essentially confirmed the case for the prosecution outlined in the start-up and extension of the proceedings orders.

On June 12, 2019 AGCM (the Italian Competition Authority) extended the deadline for deposit of TIM's final defense to September 20, 2019 and set the final hearing for September 25, 2019.

On September 18, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until February 28, 2020.

On March 6, 2020, TIM was notified of the decision to close the investigation: AGCM (the Italian Competition Authority) ruled that TIM had abused its dominant position, finding that TIM had put in place an anti-competitive strategy designed to hinder the competitive development of investment in Ultrabroadband network infrastructure. The fine imposed on TIM for the anti-competitive offense is 116,099,937.60 euros.

On June 25, 2020 TIM sent AGCM (the Italian Competition Authority) the so-called compliance report as ordered in the final provision.

In May 2021, the Company in any case paid the fine.

TIM appealed the aforementioned fine before the Lazio Regional Administrative Court (TAR). By judgment 1963/2022 of February 28, 2022, TIM’s appeal was rejected; TIM has appealed to the Council of State against the decision of the regional administrative court.

In August 2022, Irideos notified a deed of intervention *ad opponendum* with respect to TIM’s principal appeal.

The related hearing for oral discussion is scheduled for May 25, 2023.

Open Fiber

In March 2020, Open Fiber (OF) sued TIM before the Court of Milan, claiming damages of 1.5 billion euros for alleged abuse of an exclusive and dominant position in relation to OF. The alleged actions consist of: (i) pre-emptive investments in FTTC networks in white areas; (ii) initiating specious legal action to obstruct Infratel tenders; (iii) spurious repricing of certain wholesale services; (iv) commercial lock-in offers on the retail market; (v) false disclosure to AGCom in connection with the approval of a wholesale offer and spreading rumors about TIM being interested in acquiring OF; (vi) discriminatory access conditions to TIM passive infrastructure. TIM filed an appearance, contesting the arguments of OF. Enel S.p.A. intervened in the proceedings, asking that TIM be ordered to compensate all damages suffered and being suffered by Enel and OF, without, however, quantifying such. During the course of proceedings, Open Fiber redetermined the damage allegedly suffered, taking it to 2.6 billion euros plus interest and monetary revaluation. Open Fiber has also clarified that it believes such damages are still to be suffered. Enel then quantified the damages allegedly suffered as approximately 228 million euros, plus interest. On October 19, 2022, the hearing was held for admission of the evidence, after which the judge reserved the right to deliberate.

Irideos

In January 2022, Irideos summonsed TIM to the Court of Rome, making a claim for damages allegedly suffered as a consequence of the unlawful conduct of TIM, as sanctioned by AGCM (the Italian Competition Authority), with the provision that concluded proc. A514 (“follow-on claim”). The compensation claim comes to 23,204,079.87 euros for damages caused by the anti-competitive behavior of TIM from 2017 to 2019 (with effects also in subsequent years) on the market for services of wholesale access to the Broadband and Ultrabroadband fixed network (the “wholesale market”) and on the market for retail telecommunications services on the Broadband and Ultrabroadband fixed network (the “retail market”). TIM filed an appearance, contesting the opposing party’s arguments. At the hearing held on June 1, 2022, the investigating judge (i) assigned the parties time for depositing the briefs with terms running from February 15, 2023 and (ii) deferred the case to the hearing of June 7, 2023.

Antitrust Case I799

At its meeting on February 1, 2017, AGCM (the Italian Competition Authority) initiated an investigation for possible breach of Article 101 of the TFEU (prohibition of agreements that restrict competition) against TIM S.p.A. and Fastweb S.p.A., following the signing of an agreement aimed at setting up a cooperative joint venture called Flash Fiber S.r.l.. TIM, in agreement with Fastweb, submitted to AGCM (the Italian Competition Authority) some amendments to the agreements signed, in the form of proposed undertakings, aimed at closing the investigation without any breach being ascertained and, therefore, without any fine.

On March 28, 2018, AGCM (the Italian Competition Authority) resolved to approve the undertakings, making them binding on the Parties, and closed the case without imposing any fine.

On January 30, 2019, TIM sent the planned annual report on the provided coverage to AGCM (the Italian Competition Authority), supplemented by a subsequent communication dated March 29, 2019. TIM transmitted further details to AGCM (the Italian Competition Authority) in July and AGCM acknowledged it on October 15, 2019. On January 31, 2020 TIM sent AGCM (the Italian Competition Authority) the third report on the implementation of the undertakings given. Finally, on January 29, 2021 TIM sent AGCM (the Italian Competition Authority) the fourth and final report on the implementation of the undertakings given.

On June 11, 2018 Open Fiber S.p.A. and Wind Tre S.p.A. filed separate appeals to the Lazio Regional Administrative Court (TAR) against the order closing case I799 with the acceptance of the undertakings. They allege that this order has a series of procedural and substantial defects.

Open Fiber S.p.A. also asked for the precautionary suspension of the order. In a ruling of March 2020, the Regional Administrative Court rejected in full the appeal by Open Fiber.

The hearing for discussion of the merits of Wind Tre's appeal was held on October 12, 2022 and the Regional Administrative Court published the judge's extinguishing order on October 23. The judgment has therefore been settled.

Eutelia and Voiceplus

In June 2009, Eutelia and Voiceplus asked that alleged acts of abuse by TIM of its dominant position in the premium services market (based on the public offer of services provided through so-called Non Geographic Numbers) be investigated. The complainants quantified their damages at a total of approximately 730 million euros.

The case follows a precautionary procedure in which the Milan Appeal Court prohibited certain behaviors of the Company relating to the management of some financial relations with Eutelia and Voiceplus concerning the Non Geographic Numbers, for which TIM managed the payments from the end customers, on behalf of such OLOs and in the light of regulatory requirements. After the ruling with which the Milan Court of Appeal accepted TIM's objections, declaring that it was not competent in this matter and referring the case to the Civil Court, Eutelia in extraordinary administration and Voiceplus in liquidation resubmitted the matter to the Milan Court. The first hearing took place in the month of March 2014. TIM filed an appearance challenging the claims of the other parties. After the collapse of Voiceplus, the Milan Court declared the case suspended, in an order in September 2015. The case was later resumed by Voiceplus.

With a judgment issued in February 2018, the Milan Court accepted TIM's defense and rejected the plaintiffs' claim for compensation, ordering them, jointly and severally, to pay the legal costs. In March 2018 Eutelia and Voiceplus proposed an appeal against the judgment in the first instance.

TIM appealed against the claim, requesting confirmation in full of the judgment in the first instance. The appeal of Eutelia and Voiceplus was fully rejected with the judgment of August 5, 2019. In December 2019 Eutelia and Voiceplus appealed to the Court of Cassation over the judgment of the Court of Appeal. TIM notified a counterclaim asking confirmation of the ruling appealed against. The hearing in chambers is scheduled for February 16, 2023.

28 day billing

AGCom resolution 121/17/CONS introduced instructions on billing intervals for telephony, prescribing, for fixed telephony, that the interval should be monthly, or multiples thereof, and, for mobile telephony, that it should be at least four-weekly. TIM appealed Resolution 121/17/CONS to the Regional Administrative Court. The judgment rejecting the appeal was published in February 2018. TIM appealed this judgment to the Council of State in June 2018. On September 23, 2020, the non-definitive ruling was published whereby the Council of State joined the appeals submitted by TIM, Vodafone, Fastweb and Wind Tre and ordered the prejudicial deferral to the European Union Court of Justice (EUCJ) on whether or not the Authority had the power to regulate the frequency of renewal of the commercial offers and invoicing periods, at the same time rejecting the other grounds of appeal submitted by the operators and suspending proceedings. In February 2021, TIM deposited the written observations on the requests for prejudicial judgment with the EUCJ. On the request of the EUCJ, the Council of State, by order published on November 23, 2021, confirmed the referral to the Court of Justice on the prejudicial matters raised; on December 15, 2022, the conclusions were submitted of the general attorney and we are now awaiting the decision of the EUCJ; the case before the Council of State is therefore currently on hold.

With its Resolution 499/17/CONS, having confirmed the breach of Resolution 121/17/CONS, AGCom fined TIM 1,160,000 euros, ordering it to make provision – when the billing cycle was restored to monthly intervals or multiples thereof – to return the amounts corresponding to the fee for the number of days that, from June 23, 2017, had not been used by the users in terms of the supply of service due to the misalignment of the four-weekly and monthly billing cycles.

In March 2018 with resolution no. 112/18/CONS AGCom (i) revoked the preceding resolution 499/17/CONS in the part in which TIM was ordered to repay the amounts presumably lost from June 23, 2017 onwards, with the four-weekly billing cycle, (ii) cautioned TIM, with regard to fixed-line voice services only, against postponing the starting date of invoices issued after the return to monthly invoicing by the same number of days as those presumably deducted starting from June 23, 2017 with the four-weekly invoicing cycle.

Under Presidential Decree 9/18/PRES, AGCom amended the provisions of Decision 112/18/CONS requiring the deferment of billing once the billing cycle was restored to monthly intervals, or multiples thereof, while also ordering that the timescales for complying with the order would be identified after hearings with the operators and the main consumer protection associations.

In July 2018, AGCom issued resolution 269/18/CONS, with which it set December 31, 2018 as the date by which the operators had to return to their fixed network customers a number of days of service equal to those eroded as an effect of 28-day billing, or propose to the affected customers any alternative compensatory measures, after having notified them to AGCom. TIM has appealed all of the above resolutions.

With the judgment published in November 2018, the Regional Administrative Court (TAR) canceled the pecuniary administrative sanction of 1.16 million euros imposed with Resolution 499/17/CONS, and confirmed the obligation of *restitutio in integrum* to the fixed-line customers by December 31, 2018, the grounds for the judgment were instead published on May 10, 2019. The Council of State has deferred discussion of the case to November 10, 2023, awaiting the decision of the EU Court on the Community compatibility of the power exercised by AGCom to impose a billing period of no less than a month.

In September 2019, TIM also challenged resolution 221/19/CONS, before the Regional Administrative Court (TAR), with which the sanction pursuant to Resolution 499/17/CONS, canceled by the Regional Administrative Court of Lazio, was recalculated to the amount of 580,000.00 euros, with the maximum fine provided for by Art. 98, subsection 16 of the CCE in force at the time of the events applied. We are waiting for a date to be fixed for the discussion hearing.

In August 2019, AGCom initiated new proceedings (CONT 12/19/DTC) for failure to comply with the order to refund the days eroded by billing every 28 days for fixed network and convergent customers, according to the procedures established with resolutions nos. 112/18/CONS and 269/18/CONS. On conclusion of these proceedings, by means of Resolution 75/20/CONS, the Authority found that TIM did not comply with the above resolutions, imposing a fine of 3 million euros. The measure was challenged by TIM before the TAR in July 2020. We are waiting for a date to be fixed for the discussion hearing.

Moreover, since June 2019, TIM has offered its fixed network customers, active prior to March 31, 2018 and subject to billing every 28 days, the possibility of accepting a compensatory solution, an alternative to refunding the eroded days pursuant to AGCom resolution no. 269/18/CONS and from September 2019 it has been accepting requests for reimbursement of eroded days. In both cases, TIM informed customers with several messages in the bill, on the web in the main newspapers. The initiatives just described were communicated to AGCom as part of the aforementioned penalty proceedings.

In the civil proceedings, by judgment published on October 14, 2021 the Court of Milan, under the scope of the case on the merits brought by Associazione Movimento dei Consumatori in 2018 regarding the pricing and 28-day renewal for fixed line and converging offers, confirmed the order given on June 4, 2018 by the same Court upon closure of the complaint brought by TIM pursuant to Art. 669 terdecies of the Italian Code of Civil Procedure and the measures set out therein, ordering TIM to fulfill the requests for repayment of prices paid as a result of customer maneuvers - including discontinued, as indeed TIM had already been doing since 2018, at the same time also extending the period relevant to the recognition of the reimbursement through to April 1, 2017 and therefore earlier than June 23, 2017, the date on which the operators will need to comply with Resolution no. 121/17/CONS. TIM has appealed the judgment of the Court of Milan, at the same time filing a request for suspension of its enforcement. With order of January 11, 2022, the Court of Appeal of Milan partially accepted TIM's request, suspending the charge in the judgment relating to the order to send a registered letter to all discontinued customers that were subject to billing every 28 days to inform them of the possibility to obtain a refund of the additional amounts paid as a result of the maneuver. By judgment published on December 9, 2022, the Milan Court of Appeal confirmed the first instance judgment in full. On January 12, 2023, TIM notified the appeal to the Court of Cassation and on January 16, 2023 it also filed the appeal pursuant to Art. 373 of the Italian Code of Civil Procedure with the Milan Court of Appeal, asking that enforcement of the ruling be suspended until the judgment pending before the Court of Cassation had been settled.

By order of February 14, 2023, the Milan Court of Appeal, in partially upholding TIM's appeal, ordered suspension of the judgment in connection with the order to send the recorded delivery letters to former customers, whilst awaiting the decision of the Supreme Court.

Antitrust Case I820

On February 19, 2018, AGCM (the Italian Competition Authority) initiated a I820 preliminary proceeding against the companies TIM, Vodafone, Fastweb, Wind Tre and the industry association ASSTEL to investigate the alleged existence of an agreement among the major fixed-line and mobile telephone operators to restrict competition by coordinating their respective commercial strategies, in breach of Art. 101 of the TFUE.

The presumed coordination, according to the opening provision of the proceedings by AGCM (the Italian Competition Authority), would take the form of implementation of the obligation introduced by Article 19-quinquiesdecies of Legislative Decree 148/2017 (converted by Law 172/2017) which requires operators of electronic communication services to send out monthly (or monthly multiples) bills and renewed offers for fixed and mobile services.

On March 21, 2018, AGCM (the Italian Competition Authority) issued a provisional precautionary measure against all the operators involved in the proceedings with which it ordered the suspension, pending the proceedings, of the implementation of the agreement concerning the determination of repricing communicated to users at the time of reformulating the billing cycle in compliance with Law 172/17 and to independently redetermine its commercial strategy. With its decision no. 27112 of April 11, 2018, AGCM (the Italian Competition Authority) confirmed the precautionary measure.

On June 12, 2018, TIM filed an appeal with the TAR for the quashing of said measure.

On January 31, 2020, TIM was notified of the decision to close the investigation, in which AGCM (the Italian Competition Authority) confirmed the existence of the agreement between Telecom, Vodafone, Fastweb, Wind Tre, but excluding Asstel from participation in the agreement. The fine imposed on TIM for participation in the anti-competitive agreement was 114,398,325 euros. In April 2020, TIM also challenged the sanction order.

In a ruling published on July 12, 2021, the Lazio Regional Administrative Court upheld the petition and the grounds added and submitted by TIM, canceling the measures taken by AGCM (the Italian Competition Authority), including that relating to the existence of the agreement and application of the sanction.

On September 11, 2021, AGCM (the Italian Competition Authority) presented a petition to the Council of State, requesting the cancellation of the judgment given by the regional administrative court; following the hearing for discussion held on January 26, 2023, we are currently awaiting decision.

Antitrust Case I850

By decision given on December 15, 2020, AGCM (the Italian Competition Authority) started an investigation in regard to the company Telecom Italia S.p.A., Fastweb S.p.A., Teemo Bidco S.r.l., FiberCop S.p.A., Tiscali Italia S.p.A. and KKR & Co. Inc., to ascertain the existence of any breaches of article 101 of the TFEU in relation to the coinvestment offer.

More specifically, the investigation regards the contracts governing the establishment and operation of FiberCop and the supply agreements with Fastweb and Tiscali. AGCM (the Italian Competition Authority) intends to verify that such agreements do not hinder competition between operators in the medium and long-term and assure the rapid modernization of the country's fixed telecommunications infrastructures.

On August 6, 2021, TIM submitted a proposal of undertakings to AGCM (the Italian Competition Authority) in order to resolve the competition concerns subject of the investigation and close the proceedings without any sanction being applied.

On September 7, 2021, AGCM (the Italian Competition Authority) judged these commitments to not be clearly unfounded and ruled publication on the Authority's website from September 13, 2021; thus market testing began and was completed by October 13, 2021, the date by which all subjects so wishing submitted their observations to AGCM in respect of the relevant commitments.

On December 14, 2021 AGCM (the Italian Competition Authority) extended the deadline for the conclusion of the proceedings, initially set for December 31, 2021, to February 15, 2022.

Precisely during the meeting held on February 15, 2022, AGCM (the Italian Competition Authority) finally resolved to approve the commitments insofar as they were considered suitable to eliminate the alleged anti-competition aspects investigated.

As envisaged by the final ruling, on April 22, 2022, TIM sent AGCM a first report on the measures taken to fulfill the commitments made.

On May 11, 2022, AGCM notified TIM of its acknowledgment of the measures presented in such report.

On January 31, 2023 TIM sent AGCM (the Italian Competition Authority) a second report on the implementation of the undertakings given.

By petition notified in April 2022. Open Fiber has challenged the above AGCM provision no. 3002, whereby the proceedings were closed, before the regional administrative court of Lazio; the petitioner believes that the commitments, made mandatory by the closure, are not sufficient to remove the anticompetitive aspects identified at the start of proceedings.

Upon completion of the interim hearing of last June 1, the regional administrative court rejected the request and scheduled the merits hearing for January 25, 2023. At the January 26 hearing, after extensive discussion, the judge reserved the right to deliberate.

Antitrust Case I857

On July 6, 2021, AGCM (the Italian Competition Authority) started an investigation in regard to TIM and DAZN for a possible understanding reached with a view to restricting competition in connection with the agreement for the distribution and technological support for TV rights for Serie A football in the 2021-2024 period.

The investigation also aims to verify the restrictive nature of the understanding with reference to additional elements regarding the possible adoption by TIM of technical solutions not available for competitor telecommunications operators and which may effectively hinder the adoption of their own technological solutions.

At the same time, the Authority has also initiated proceedings for the potential adoption of protective measures.

By resolution passed on July 27, 2021, AGCM (the Italian Competition Authority) closed the interim proceedings, considering that the initiatives and amendments to the agreement proposed by TIM and DAZN in the meantime are presently able to prevent any serious and irreparable damage to competitors while investigations are completed.

Indeed, said measures aim, as a whole, to avoid possible discrimination in the use of the DAZN service, due to its activation by users using Internet connection services other than those offered by TIM. In addition, the agreement between TIM and DAZN has been amended to guarantee DAZN complete freedom in applying discounts and promotions. TIM has also undertaken to provide DAZN with a sufficient number of white label set-top-boxes to also guarantee DAZN customers the viewing of matches over digital terrestrial TV, in the event of connection problems.

Finally, TIM has undertaken to supply wholesale services to OAOs interested therein to manage traffic peaks deriving from live data transmissions, regardless of the type of content transmitted.

On October 29, 2021 TIM submitted a proposal for undertakings to AGCM (the Italian Competition Authority) with a view to resolving the competitive concerns that were the subject of the investigation and closing the proceedings without the finding of any infringement and therefore without any sanction being applied.

On December 14, 2021, AGCM (the Italian Competition Authority) approved the publication of the aforementioned proposal for undertakings on the Authority's website, as these undertakings, taken as a whole, do not appear to be manifestly unfounded and are capable of removing the restrictions to competition hypothesized in the measure initiating the investigation in question.

On January 5, 2022, with the publication on the AGCM website, market testing began.

The deadline for rebuttal arguments and proposing any accessory amendments to the commitments presented by TIM and DAZN is scheduled for March 7.

On February 23, 2022, TIM and DAZN were convened separately to the AGCM offices. During the hearing, the Offices informed TIM - and thereafter confirmed this in the hearing meetings - that in a hearing held on February 15, the Board deemed it necessary to make certain "accessory" changes in order to approve the commitments submitted.

On March 4, 2022, TIM and DAZN requested an extension of the deadline for the submission of observations, also in view of the new aspects that had emerged on February 23. The new deadline was set as March 23.

On March 22, 2022, TIM informed the Authority that the additional changes considered necessary by the Board to approve the commitments would have entailed a complete overhaul of the contents and economic balance of the agreements signed by TIM and DAZN, such as to make it no longer possible to pursue the hypothesized business model. At the same time, TIM informed the Authority of the start of negotiations with DAZN possibly concerning the revision of the distribution exclusivity clause, which was the main object of the Authority's investigation. Considering the complexity of negotiations, TIM requested an extension of another 30 days for submission of observations. The extension was authorized and the new deadline set as April 23.

On April 20, 2022, in consideration of the extension of negotiations, also due to the complexity and economic relevance of that being negotiated, DAZN and TIM requested an additional extension. The new deadline was set as May 9.

On May 9, 2022, TIM informed the Authority that it had declared willing to DAZN to waive the exclusivity of the distribution of Serie A football rights, as currently regulated by the Deal Memo, with DAZN consequently having the faculty to distribute such rights also through third party operators and that, in exchange for the willingness to waive this right, the Parties had begun negotiations for a review of the contracted economic commitment envisaged by TIM.

On June 7, 2022, the Authority ruled on the rejection of the commitments submitted, which "would appear, both where considered comprehensively and individually, to be unable to eliminate the anticompetitive aspects identified in the resolution that started the proceedings, insofar as they do not resolve the competition concerns highlighted in the initial proceedings, where not translated into shared contractual amendments such as to eliminate the critical competition issues" highlighted by the Authority.

Again on June 7, 2022, the Authority ruled on the deferral of the deadline for the conclusion of proceedings to March 31, 2023.

On August 2, 2022, TIM informed the Antitrust Authority that it had reached a new agreement with DAZN, under which the latter has the faculty to distribute football rights through any third party, surpassing the previous system of exclusivity in TIM's favor.

On January 20, 2023, notification was given of the investigation results (CRI).

AGCM (the Italian Competition Authority) believes that the agreement reached on January 27, 2021 (the "Deal Memo") had contents and resulted in effects that reduced competition for its entire duration (and therefore until stipulation of the new agreement on August 3, 2022).

On January 31, 2023, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until May 31, 2023.

TIM will be able to submit its defense brief by March 28, while the final hearing before the authority has been scheduled for April 4, 2023.

Antitrust Case A556

On November 30, 2022, AGCM (the Italian Competition Authority) started proceedings against TIM in order to verify the existence of an abuse of a dominant position in breach of Art. 3 of Law no. 287/90.

The proceedings stem from a report made by Fastweb concerning TIM's refusal to grant Fastweb its radio mobile signal coverage maps that had been requested in order to take part in the "Open tender for mobile telephone services for public authorities - Edition 9 - Sigef ID 2452" (Consip TM9 tender).

The authority simultaneously also launched precautionary sub-proceedings in accordance with Article 14-bis of Law No. 287/1990, aiming to verifying the existence of precautionary measures aiming to protect competition.

On December 20, 2022, the authority resolved that there were no grounds on which to take precautionary measures, in accordance with Art. 14-bis of Law no. 287/90 and thus closed the precautionary sub-proceedings, rejecting Fastweb's appeal.

Completion of the main proceedings has instead been scheduled for the coming December 1, 2023.

Antitrust Case PS 10888 "TIM Passepartout"

On June 15, 2021, AGCM (the Italian Competition Authority) initiated proceedings against TIM for unfair commercial practice concerning the lack of transparency of the information provided by the TIM Passepartout payment management platform and alleged activations of services not requested. Although firmly convinced of the lawful nature of its conduct, on July 29, 2021, TIM chose to submit undertakings with corrective measures. The undertakings submitted consist of improving information aspects noted as falling short of expectations of the TIM Passepartout platform (only operative for customer base offers) and in implementing a communication campaign aimed at making contact with customers not acknowledging charges for services not requested, to see if conditions are met for refund. The Authority has accepted the commitments made by TIM hence the proceedings have now concluded without any assessment of the alleged unfair conduct and application of the sanction.

Antitrust Case PS 12231 "TIM fixed offers" (Premium, Executive, Magnifica)

On December 22, 2021, AGCM (the Italian Competition Authority) started proceedings against TIM for unfair commercial practices reported by Iliad S.p.A. concerning the alleged failure to provide information on the consumption of the voice component of the Premium and Executive fixed offers and technical limits correlated with the method being tried out of the Magnifica fixed offer. Although convinced that its conduct was correct, on February 23, 2022, TIM submitted undertakings, implemented since March 2022, that overcame the technical limits disputed for the Magnifica offer on trial, improved transparency of information on the consumption components of the Premium and Executive offers and defined a communication campaign focused on customers not acknowledging charges for consumption in the voice component, so as to assess whether or not conditions are met for refund. The Authority has rejected the commitments but considered that the measures implemented by TIM were able to cease the conduct disputed. On November 2, 2022, the authority resolved to conclude the proceedings, fining TIM 1 million euros.

Antitrust Case PS 12304 “Anomalous billing”

On April 28, 2022, AGCM (the Italian Competition Authority) initiated proceedings against TIM for unfair commercial practice, challenging alleged undue billing following a request to terminate the line, including cases of switch to another operator, with reference to fixed and mobile telephony. Although convinced of the diligence of its conduct, TIM has decided to implement a series of measures to make the procedures for terminating contract, and, therefore, the related billing, even more efficient and transparent. The completion of the proceedings was postponed until March 24, 2023. Similar proceedings have been brought by the authority against the main communication operators.

Antitrust Case PS 12384 “Additional giga”

On August 5, 2022, AGCM (the Italian Competition Authority) initiated proceedings against TIM for unfair commercial practice reported by various consumers, challenging the alleged incorrect application of art. 65 of Italian Legislative Decree no. 206 of September 6, 2005 for an alleged additional service (giga) present in the mobile maneuver offer with effect from September 1, 2022. At the same time as the tariff remodulation maneuver, TIM also gave the consumer the option of choosing to keep the pre-existing offer, also in compliance with the guidance given by the Council of State (Judgment no. 8024/2019). On March 3, 2023, the authority resolved to conclude the proceedings, fining TIM 2.1 million euros.

Universal Service

In a decision published in July 2015, the Council of State rejected the appeal lodged by AGCom and TIM against the judgment of the Lazio Administrative Court (TAR) on the financing of the universal service obligations for the period 1999–2003. With this judgment the judge had granted the appeals by Vodafone, annulling AGCom decisions 106, 107, 109/11/CONS on the renewal of the related proceedings, which included Vodafone among the subjects required to contribute, for a sum of approximately 38 million euros. Essentially, the judgment confirms that the Authority has not demonstrated the particular degree of "replaceability" between fixed and mobile telephony for mobile operators to be included among the subjects required to repay the cost of the universal service, which means that AGCom needs to issue a new ruling. TIM has filed an application with AGCom to renew the proceedings, and an appeal against the judgment of the Court of Appeal to the Court of Cassation (which subsequently ruled that the appeal was inadmissible).

In April 2016 Vodafone appealed against the Ministry of Economic Development (MISE) and TIM to the Council of State, for non-compliance with the judgment of the Council of State. This appeal referred to AGCom decision 109/11/CONS (2003 yearly payment, on the basis of which Vodafone had paid the sum of approximately 9 million euros as contribution, restitution of which was requested).

In its judgment of November 2016, the Council of State rejected the appeal, referring to the Regional Administrative Court (TAR) the decision on the methods of compliance. In February 2017, Vodafone presented the Lazio Regional Administrative Court with four new appeals against the Ministry of Economic Development and TIM regarding observance of the ruling, upheld on appeal, countermanding the resolutions for the years 1999–2003 and repayment of the aforesaid amounts of around 38 million euros already paid to the Ministry of Economic Development as a contribution.

With a judgment issued in June 2018, the TAR rejected all of Vodafone's appeals for observance, and, as requested by TIM, expressly affirmed that AGCom must renew the proceedings, particularly with regard to the determination of the degree of replaceability between fixed and mobile telephony. Vodafone challenged the four judgments before the Council of State, which, with a decision of October 2019, upheld Vodafone's appeal and confirmed the restitutory obligation of the sums in question applicable to TIM.

With resolution no. 263/20/CIR, AGCom started proceedings to renew the investigation into the iniquity of the net cost of the universal service for 1999-2009 and the allocation of contribution expenses. Vodafone has challenged this resolution before the Regional Administrative Court. The renewal proceedings concluded with resolution 18/21/CIR, which substantively confirmed the draft order. This same resolution has only been challenged before the regional administrative court by TIM for the years 1999 and 2000, while Vodafone, Wind and Fastweb have challenged the resolution for all years concerned with opposite grounds. By judgments published in February 2022, resolution 18/21/CIR was partially canceled; indeed, the regional administrative court has rejected the main complaint reporting the lack of power of renovation and upheld only the grounds hinged on the alleged unreasonable nature of the threshold envisaged by AGCOM for the analysis of iniquity second facie. Fastweb, Vodafone, Wind, AGCom and TIM have appealed to the Council of State against the judgment of the regional administrative court and the related hearings of the merits have been scheduled for April 4 and 27, 2023.

Dispute relating to "Adjustments on license fees" for the years 1994-1998

With regard to the judgments sought in previous years concerning the Ministry of Communications' request for payment of the balance of the amounts paid in concession charges for the years 1994-1998 (for a total of 113 million euros), the Lazio Regional Administrative Court (TAR) rejected the Company’s appeal against the request for adjustment of the license fee for 1994 in the amount of approximately 11 million euros, 9 million euros of which against turnover not received due to bad debts. TIM lodged an appeal. On the outcome of proceedings, with the ruling of December 2019, the Council of State partially accepted TIM's position, establishing the principle, according to which, the receivables referring to 1994 not collected for reasons not attributable to the operator, could have been deducted from the tax base for calculating the concession fee. As the Ministry of Economic Development has not followed up on TIM’s requests aimed at obtaining fulfillment of the judgment, TIM has submitted a further petition to the Council of State for failure to execute the judgment, but with judgment given in April 2022, the request for compliance brought by TIM was rejected. TIM has appealed for revocation of this judgment to the Council of State; the hearing has been scheduled for March 23, 2023.

With two further judgments the Lazio Regional Administrative Court (TAR), reiterating the reasons expressed previously, also rejected the appeals in which the Company challenged the requests for payment of outstanding balances of license fees for the years 1995 and 1996-1997-1998, in the amount of approximately 46 million euros. TIM has appealed before the Council of State also against these judgments. By judgment published in April 2022, the Council of State stressed the principles already set for 1994, namely that receivables that have become uncollectable for reasons not the fault of the operator, correctly handled in the accounts, on the financial statements and in terms of tax, can be deducted from the tax base for calculating the concession fee.

With reference to the 1998 fee adjustment (equal to about 41 million euros), the Lazio TAR, by TAR order of December 2018, suspended the judgment, raising preliminary questions with the EU Court of Justice on the correct scope of EC Directive no. 97/13 (in the matter of general authorizations and individual licenses in the field of telecommunications services on the basis of the currently pending litigation on the 1998 license fee, currently pending before the Rome Court of Appeal and illustrated in a subsequent paragraph).

The referred questions were based, inter alia, on the question posed to the Court of Justice on the possible conflict between the aforementioned EC Directive 97/13 and national law, which extended the obligation for telecommunications license-holders to pay the license fee for 1998 (commensurate with a portion of turnover), despite the liberalization process underway. In its judgment of March 2020, the EU Court of Justice held that the EU regulatory system must be interpreted as not allowing national legislation to extend to 1998 the obligation imposed on a telecommunications undertaking that was previously the concession holder (such as TIM) to pay a fee calculated on the basis of turnover and not only the administrative costs connected with the granting, management, control and implementation of the general authorizations and individual licenses scheme. The Court held, inter alia, that the Council of State – having held in its judgment 7506/2009 that the fee imposed for 1998 on TIM, the holder of an authorization existing on the date of entry into force of Directive 97/13, was due – interpreted national law in a way that was incompatible with EU law, as interpreted by the Court in its judgment of February 21, 2008. Following the judgment of the EU Court of Justice, the opinion on the final calculation of the 1998 charges was summarized before the Lazio Regional Administrative Court, which, in a judgment given last February, declared TIM's appeal as unacceptable for procedural reasons, namely due to the prevalence of the formal ruling consisting of judgment no. 7506/09; in substantive terms, on the other hand, the judgment of the EU Court of Justice once again ascertained the European Community unlawful nature of the credit claim by the PA to obtain payment of the 1998 charges and, consequently, the final balance. The company has challenged the judgment of the Lazio Regional Administrative Court.

Poste

There are some pending disputes brought, at the end of the '90s, by Ing. C. Olivetti & C. S.p.A. (now TIM) against Poste, the Italian postal service, concerning non-payment of services delivered under a series of contracts to supply IT goods and services. The judgments issued in the lower courts established an outcome that was partially favorable to the ex-Olivetti, and have been appealed against by Poste in individual rehearings.

In this respect, while a 2009 judgment of the Rome Appeal Court confirmed one of the outstanding payables to TIM, another judgment by the same Court declared void one of the disputed contracts. After this judgment, Poste had issued a writ for the return of approximately 58 million euros, opposed by TIM given that the judgment of the Supreme Court for amendment of the above judgment is still pending.

After the 2012 judgment of the Supreme Court that quashed and remanded the decision of the Appeal Court on which the order was based, the Rome Court declared that the matter of issue in the enforcement proceedings was discontinued, since the claim made by Poste had been rejected. The judgment was resubmitted to another section of the Rome Appeal Court. In ruling no. 563 of January 25, 2019, the Rome Court of Appeal at the time of proceedings, reversing the Company's previous unfavorable appeal, confirmed the contract's validity and, with it, the legitimacy of TIM's view of the amount already collected, of which Poste had requested reimbursement. This ruling was challenged by Poste with appeal filed with the Court of Cassation, notified on July 31, 2019, which TIM challenged with relevant counter appeal.

Elinet S.p.A. Bankruptcy

In 2014, the receiver of Elinet S.p.A., and subsequently the receivers of Elitel S.r.l. and Elitel Telecom S.p.A. (the parent, at the time, of the Elitel group) appealed the judgment by which the Court of Rome dismissed the damages claim brought by the receivers of the Elinet-Elitel group, filing a new damages claim for a total of 282 million euros. The Company is alleged to have exercised management and control powers over the plaintiff, and, with it, over the Elitel group (an OLO in which TIM has never held any equity interest) through the management of trade receivables. TIM filed an appearance, challenging the claims made by the other party. The judgment on the appeal was handed down with ruling in July 2019, which with reference to TIM confirmed full legality of its conduct and total non-existence of any element of direction and coordination. The receivers of Elinet S.p.A. and Elitel Telecom S.p.A. appealed to the Court of Cassation in January 2020 to obtain the annulment of the judgment in the second instance. The receiver of Elitel S.r.l. has not filed an appeal with the Court of Cassation and, consequently, the total claim for damages has been reduced to 244 million euros. TIM notified a counterclaim asking confirmation of the ruling appealed against. The Court has scheduled the hearing in chambers for February 3, 2023.

Brazil - Opportunity Arbitration

In May 2012, TIM and Telecom Italia International N.V. (now merged in Telecom Italia Finance) were served with a notice of arbitration proceedings brought by the Opportunity group, claiming compensation for damages allegedly suffered for presumed breach of a settlement agreement signed in 2005. Based on the claimant's allegations, the damages relate to circumstances that emerged in the criminal proceedings pending before the Milan Court regarding, *inter alia*, unlawful activities engaged in by former employees of TIM.

The investigatory phase having been completed, the hearing for oral discussion took place in November 2014, after which the parties filed their concluding arguments in preparation for the decision on the case.

In September 2015, the Board of Arbitration declared the proceedings closed, as the award was going to be filed.

In September 2016 the ICC Court notified the parties of its judgment, based on which the Court of Arbitration rejected all the claims made by the Opportunity group and decided that the legal costs, administrative costs and costs for expert witnesses should be split between the parties (the “2016 Arbitration Award”).

In April 2017 the Opportunity group filed an appeal against the 2016 Arbitration Award before the Paris Court of Appeal.

In November 2017, TIM and Telecom Italia Finance received from the Secretariat of the ICC’s International Court of Arbitration notice of a Request for Revision of the 2016 Arbitration Award, filed by the Opportunity group, asking for a new award. A Board of Arbitration was subsequently established.

In October 2018, TIM and Telecom Italia Finance requested proceedings with the Paris Court of Appeal to be suspended, in the light of proceedings pending with the Court of Arbitration of the International Chamber of Commerce to review the same 2016 Arbitration Award. In November 2018, the Paris Court of Appeal suspended the proceedings until the decision is taken by the Court of Arbitration in the review proceedings.

As regards the proceedings to review the 2016 Arbitration Award, in October 2019 the ICC held the discussion hearing in Paris. In August 2020, the Arbitration Court issued the award rejecting the Request for Revision presented by the Opportunity Group (the “2020 Arbitration Award”). In December 2020, the Opportunity group filed an appeal against the 2020 Arbitration Award before the Paris Court of Appeal. In May 2021 the Opportunity group asked the Paris Court of Appeal to summarize the proceedings brought against the 2016 Arbitration Award. Thereafter, the Opportunity Group, TIM and Telecom Italia Finance filed their briefs in the two proceedings pending before the Paris Court of Appeal, respectively against the 2016 Award and the 2020 Award. The Court of Appeal has scheduled the hearing for discussion of both proceedings for June 5, 2023.

Iliad

By summons served during the first quarter of 2020, Iliad Italia S.p.A. sued TIM before the Court of Milan for alleged anti-competitive conduct, including through the Kena Mobile brand, which was allegedly aimed at hindering its entry to and consolidation in the mobile phone market in Italy, seeking damages of at least 71.4 million euros.

TIM filed an appearance, fully disputing the requests of Iliad Italia S.p.A.; and, in turn, submitting a counterclaim in accordance with Art. 2598 of the Italian Civil Code, with reference to the denigration implemented by Iliad Italia S.p.A. in regard to TIM and formulating a symmetrical claim for compensation for damages. In the first preliminary brief, Iliad updated its claim for damages, taking it to 242.8 million euros. Following the hearing for the specification of the parties' pleadings, held with written discussion, the court deferred the hearing for decision, assigning deadlines for submitting the closing arguments and statements of defense.

Iliad

By writ of summons notified in September 2021, Iliad Italia S.p.A. summonsed TIM before the Court of Milan for the alleged application to customers of unlawful contractual conditions in terms of time limits and economic costs for withdrawal with reference to mobile and fixed telephone offers, with a consequent petition to order TIM to compensate damages, currently quantified as 120.4 million euros. On February 1, 2022, the first hearing was held and the terms assigned for the briefs pursuant to article 183, subsection VI of the Italian Code of Civil Procedure. The hearing for discussion of the evidence has been postponed to April 5, 2023.

T-Power

By writ of summons notified in December 2021, T-Power s.r.l., former agent for the consumer sector, summonsed TIM before the Court of Rome to have the right acknowledged to receive payment of a total maximum amount of approximately 85 million euros by way of commission, compensation in lieu of notice and termination of employment, as well as compensation for damages. The disputed ended in December 2022 with a settlement.

Fastweb (Ethernet ATM migration)

By writ of summons notified in December 2021, TIM summonsed Fastweb before the Court of Milan, asking that it be ascertained and declared that Fastweb had not achieved the minimum objectives of migration from ATM bitstream technology to Ethernet bitstream technology in any of the 30 Collection Areas into which the national territory is divided by the deadline envisaged by industry regulation and the migration plan agreed by the parties; and therefore that it ascertain and declare that Telecom is entitled to: (a) reverse the economic benefits relating to this migration granted retroactively from 4/12/2016 to Fastweb and (b) obtain from Fastweb the prices for the ATM bandwidth envisaged by the contract stipulated by the parties and the current OR in force ratione temporis; (c) therefore declare and order Fastweb to pay Telecom the total amount of 79,240,329.47 euros (or other amount, potentially greater, as may be assessed during the course of proceedings).

Fastweb filed an appearance and submitted a counterclaim for abuse of a dominant market position and breach of contract. Fastweb’s application is essentially based on alleged delays in the development of Ethernet coverage. The counterparty complains of damages of around 81.4 million euros. Having noted that the counterclaim made by Fastweb would appear to go beyond the profile of breach of contract and that, in this case, the specialized business chambers may be competent to judge the matter, the investigating judge has returned the case to the Chambers President for due consideration. The Chambers President has submitted the case to the President of the specialized business chambers. The first hearing is scheduled for December 14, 2022. The hearing for the admission of the preliminary motions has been postponed to June 13, 2023.

Wind Tre (INWIT)

By writ of summons notified in July 2022, Wind Tre summonsed TIM, INWIT and Vodafone to trial before the Court of Milan, asking that it ascertain the obstructive conduct of INWIT, seeking to prevent Wind Tre from upgrading the devices of its mobile network currently located at INWIT sites on the basis of the hosting contracts currently in force inter partes. Such conduct would constitute breach of contract and unlawful exploitation of the dominant position in accordance with Art. 3 of the Antitrust Law as well as unfair competition by third party also perpetrated in the form of secondary boycotting by INWIT S.p.A., TIM S.p.A. and Vodafone Italia S.p.A.. The opposing party asks the Court to ascertain and declare INWIT S.p.A., TIM S.p.A. and Vodafone Italia S.p.A. jointly liable to compensate the damages suffered by Wind Tre as a result of such unlawful acts, to be quantified as 50 million euros. The first hearing is scheduled for March 1, 2023. On January 9, 2023, Wind Tre withdrew the appeal against INWIT, Vodafone and TIM and the proceedings were extinguished.

Iliad (INWIT)

By writ of summons notified in July 2022, Iliad Italia S.p.A. summonsed Telecom, Vodafone and Infrastrutture Wireless Italiane S.p.A. ("INWIT") before the Court of Milan to assess the alleged unlawful conduct of INWIT, Telecom and Vodafone, consisting of refusal to allow Iliad to upgrade its mobile telephone transmission systems installed on INWIT-owned infrastructures. As a result of this conduct, Iliad has asked that Telecom be ordered, together with INWIT and Vodafone, to compensate the damages allegedly suffered, which it has reserved the right to quantify during the course of proceedings. The first hearing is scheduled for February 28, 2023.

b) Other information

Mobile telephony - criminal proceedings

In March 2012 TIM was served notice of the conclusion of the preliminary inquiries, which showed that the Company was being investigated by the Public Prosecutor of Milan pursuant to the Legislative Decree n. 231/2001, for the offenses of handling stolen goods and counterfeiting committed, according to the alleged allegations, by fourteen employees of the so-called "ethnic channel", with the participation of a number of dealers, for the purpose of obtaining undeserved commissions from TIM.

The Company, as the injured party damaged by such conduct, had brought two legal actions in 2008 and 2009 and had proceeded to suspend the employees involved in the criminal proceedings (suspension later followed by dismissal). It has also filed an initial statement of defense, together with a technical report by its own expert, requesting that the proceedings against it be suspended, and that charges of aggravated fraud against the Company be brought against the other defendants. In December 2012, the Public Prosecutor's Office filed a request for 89 defendants and the Company itself to be committed for trial.

During the preliminary hearing, the Company was admitted as civil party to the trial and, in November 2013, the conclusions in the interest of the civil party were filed, reaffirming TIM's total lack of involvement in the offenses claimed.

At the end of the preliminary hearing, which took place in March 2014, the Judge for the Preliminary Hearing committed for trial all the defendants (including TIM) who had not asked for their situation to be settled with alternative procedures, on the grounds that "examination in a trial" was needed. In April 2016, at the end of the first part of the trial, the Public Prosecutor asked for TIM to be sentenced to pay an administrative fine of 900 thousand euros, but decided not to ask for confiscation of any of the presumed profits of the offenses (quantified in the committal proceedings as totaling several million euros), based on the assumption that TIM had in any event remedied the presumed organizational inadequacies. While acknowledging the considerable redimensioning of the accusations, the Company has reiterated its total non-involvement in the facts at issue. In November 2016 the Court gave a verdict acquitting the Company on the grounds that there was no case to answer. All the individuals charged were also acquitted on various grounds.

The Public Prosecutor appealed the acquittal and appealed to the Court of Cassation "per saltum". In January 2019, the Italian Supreme Court of Cassation agreed to the appeal and therefore ordered that the documents of the proceedings be sent to the Milan Court of Appeal.

The proceedings were assigned to Chambers IV of the Milan Court of Appeal and started in May 2022; they concluded in October.

Upon completion of the phase, the Court of Appeal confirmed the judgment challenged, repeating the acquittal of TIM and dismissing the requests for sentencing of the General Prosecutor's Office in regard to the Company.

The Court also set a deadline of 15 days for filing the grounds.

Dispute concerning the license fees for 1998

TIM has summoned the Prime Minister's Office to appear in a civil suit for compensation for damages caused by the Italian State through appeal ruling 7506/09, handed down by the Council of State in breach, in the view of the Company, of Community law.

The main claim which the proceedings are founded on is based on community jurisprudence that recognizes the right to assert the responsibility of the State in relation to violation of rights recognized in community law and injured by a judgment that has become definitive, in respect of which no other remedy may be applied. The judgment of the Council of State definitively denied TIM the right to obtain restitution of the concession charge for 1998 (totaling 386 million euros for Telecom Italia and 143 million euros for the former TIM Company, plus interest), already denied by the Lazio regional administrative court despite the favorable and binding opinion of the European Court of Justice in February 2008. This judgment concerned the conflict between EC Directive 97/13 on general authorizations and individual licenses in the telecommunications services industry, and the national regulations that had deferred, for 1998, the obligation to pay the fee payable by telecommunications concession holders, despite the intervening deregulation process. The

Company then proposed an alternative compensation claim, within the sphere of the same proceedings, for tort pursuant to art. 2043 of the Italian Civil Code. The compensation claimed has been quantified as approximately 529 million euros, plus legal interest and revaluation. The Avvocatura di Stato filed an appearance and submitted a counterclaim for the same sum. The case is subject to eligibility analysis by the Court, which declared the inadmissibility of TIM's main claim (case for damages for manifest breach of community law pursuant to law 117/88). However, this decision was amended in favor of the Company on appeal. In March 2015 the Rome Court issued its judgment in the first instance, declaring the Company's application inadmissible.

In 2015, TIM has appealed the decision, and the case is now pending the hearing specifying the nature of the forms of order sought. The Court of Appeal has scheduled the hearing for closing arguments for April 2, 2019. Thereafter, without any new procedural activities having taken place, the Court of Appeal incontrovertibly deferred the hearing for closing arguments first to 2020 and then to 2021 (from when the terms for conclusion and replies shall run, which will be followed shortly thereafter by the issue of the judgment). These deferrals were followed by the latest, of January 15, 2021, scheduling the new hearing for January 25, 2022.

On the matters underlying the case, the following must be noted:

- on the considered lack of jurisdiction of the Court of Rome (concerned by the judgment of the Court of Rome appealed by TIM) to judge the liability of the Italian government for the work of senior magistrates (in the case in point, the Council of State), which would have led to the declared inadmissibility of the claim in accordance with Art. 5, law no. 117/1978 (old text) - the United Chambers of the Court of Cassation ruled with judgment no. 14842 on June 7, 2018, confirming the jurisdiction of the Court of Rome and, therefore, the correctness of TIM's choice to base its lawsuit in the Court of Rome;
- on the unlawful nature of the conduct of the Italian government - and, therefore, on the liability of the State-Court in accordance with Law no. 117/1998 - once again, the EU Court of Justice has ruled, deciding on the prejudicial matter raised by the Lazio TAR in other, connected proceedings, in its judgment given on March 4, 2020 in C-34/19, stressing that TIM was not required to pay the charges demanded by the State for 1998 and, therefore, confirming the clear violation by the Council of State of European Community law (also because in clear conflict with the decision already given by the EU Court of Justice on February 21, 2008 in C-296/06, as, moreover, already ruled by the Court of Appeal of Rome, Chambers I, in Decree of January 31, 2012, which sanctioned the procedural admissibility of TIM's lawsuit);
- on the matter of the right to repeat the charges paid for 1998 - the Court of Cassation ruled in its judgment no. 18603 given on September 7, 2020, rejecting the appeal brought by the Presidency of the Council against the judgment whereby the Court of Appeal of Rome had upheld the claim for compensation made by Vodafone (payment of charges for 1998) for the same title in separate proceedings.

In short, the company paid the charges disputed in 1998; it promptly challenged the administrative provision that had unfairly required said payment, before the administrative court; the administrative proceedings before the Council of State concluded negatively in 2009 (despite the recalled opposite judgment of the European Court of Justice); the civil proceedings of first instance concluded in March 2015 with a judgment of rejection for grounds of admissibility (then solved in the sense indicated by the company with the referenced judgment of Cassation in United Chambers no. 14842/18) and more than 6 years after the first instance judgment - going from deferral to deferral - the appeal judgment (that could only uphold the mentioned judgments of the Court of Justice and the Court of Cassation) has not yet been issued (nor, on the basis of these repeated deferrals, can the company forecast when it will be given).

The company is examining the various scenarios and legal claims (national, European Community, etc.) that may contribute towards defining the appeal dispute. It is considered, in fact, that the principles of the reasonable duration of the trial, in accordance with subsection 2 of article 111 of the Constitution and in accordance with article 6 of the European Convention on Human Rights, are violated by these events, considering: (i) the year in which payment was made of the undue charges is 1998; (ii) the value of these charges is approximately 529 million euros plus interest from that date; (iii) the extremely long procedural process has not even led to an appeal judgment (started in 2015 and with an unpredictable conclusion, given the continuous deferrals); (iv) the circumstance that the legal matter appears to be readily able to be settled, as not one but two judgments have already been given by the EU Court of Justice declaring payment of the charges to be incompatible with European Community legislation (judgments that have currently been ignored by the national court).

As part of the aforementioned analyzes aimed at reaching a definition of the appeal sentence, it should be pointed out that on January 25, 2021 the Company filed a request with the Rome Court of Appeal to bring forward the hearing (postponed, as mentioned, to January 25, 2022) in order to avoid yet another postponement of the case, which, as we know, concerns the non-compliance with two inter partes decisions, on the same matter, by the Court of Justice of the European Union for a clear violation of European law by the State-Judge. With a ruling on February 8, 2021, the Rome Court of Appeal (second section specializing in corporate matters) deemed it could grant the request for an advance ruling, setting the hearing for November 30, 2021. On that date the case was taken to decision with the assignment of the legal terms for closing statements and replies. By order of 2/22/2022, having acknowledged that one of its members had chosen to abstain, the Board re-submitted the case, arranging for the deeds to be sent onto the President of the Court of Appeal. On March 4, 2022, the case was reassigned to another judge. By judgment of March 31, 2022, the Board scheduled the hearing for December 1, 2022 for closing arguments. The Board has deferred the case to the hearing of January 19, 2023 for verbal discussion. Following the request made by the State advocacy, the case was deferred to the hearing of March 9, 2023.

TIM S.A. - Arbitration proceedings no. 28/2021/SEC8

In March 2020, TIM S.A. concluded negotiations with C6 and, in April 2020, launched exclusive offers for TIM customers who had opened C6 bank accounts and used their services. As compensation for this contract, TIM S.A. receives commission for each account activated, as well as the option of obtaining an investment in the bank upon achieving certain targets connected to the number of active accounts.

The number of shares received for each target achieved varies throughout the contract term, with the initial percentages being more advantageous for TIM due to the greater effort required for a new digital company to take off.

Even with the project's success, differences between the partners resulted in the initiation of arbitration proceedings in 2021.

Arbitration proceedings no. 28/2021/SEC8 were filed with the Arbitration and Mediation Center of the Brazil-Canada Chamber of Commerce, by TIM S.A. against Banco C6 S.A., Carbon Holding Financeira S.A. and Carbon Holding S.A. through which the interpretation will be discussed of certain clauses of the contracts governing the partnership. In the event of losing, the partnership may be dissolved.

TIM S.A. - Arbitration proceedings connected with the acquisition of the Oi Group mobile telephone assets

On September 19, 2022, TIM S.A., the Brazilian subsidiary of the TIM Group, reported that the Buyers (TIM S.A., Telefônica Brasil S.A. and Claro S.A.) of the mobile telephone assets of Oi Móvel S.A. (the "Seller") had identified differences in the assumptions and calculation criteria, that, under the Share Purchase Agreement and Other Covenants ("SPA") justified proposing an amendment of the Adjusted Closing Price ("ACP") by TIM of approximately 1.4 billion reais. In addition to differences relating to the Adjusted Closing Price, others have also been identified relating to the contracts of Cozani (the company into which TIM S.A.'s share of the assets, rights and obligations of the Oi Móvel mobile telephone business, flowed) with companies supplying mobile infrastructure services (site/tower rental), which, under the terms of the SPA, give rise to indemnity by the Seller in TIM S.A.'s favor, of approximately 231 million reais. As a result of the differences found, TIM S.A. retained an amount of 634 million reais (671 million reais at December 31, 2022).

On October 3, 2022, considering the Seller's express violation of the dispute resolution mechanisms provided for in the SPA, TIM S.A. communicated that the Buyers had no other alternative but to file an arbitration procedure with the Market Arbitration Chamber (Câmara de Arbitragem do Mercado) of B3 S.A. - Brasil, Bolsa, Balcão against the Seller to determine the effective amount of the adjustment to the Adjusted Closing Price, in accordance with the SPA.

On October 4, 2022, TIM S.A. was surprised by news published by the press and by a Material Fact released by the Seller that a preliminary decision had been handed down by the 7th Business Court of the Judicial District of Rio de Janeiro determining the deposit in court by the Buyers of approximately 1.53 billion reais – of which approximately 670 million reais by TIM S.A. – in an account linked to the court-ordered reorganization process of Oi, where it will be safeguarded until a later decision by the arbitration court. Said deposit has already been made, remaining in an account linked to the Court pending the installation of the Court of Arbitration.

TIM S.A. has appealed against the decision and on October 17, 2022, the Superior Court of Justice, by monocratic judgment, rejected TIM S.A.'s appeal and that of the other Buyers. Therefore, on October 19, 2022, TIM S.A. paid the 7th Business Court of the Judicial District of Rio de Janeiro, the amount of 670 million reais by way of guarantee.

Other liabilities related to the sale of assets and shareholdings

As part of agreements for the sale of assets and companies, the TIM Group has undertaken guarantees to indemnify the buyers for liabilities mainly connected with legal, tax, social security, and labor law issues, for an amount normally set as a percentage of the purchase price.
To cover such contingent liabilities, amounting to a total of around 250 million euros, provisions totaling approximately 9 million euros have been allocated solely for those cases for which payment is considered likely.
Furthermore, we report that in relation to the disposal of assets and investments, the TIM Group has commitments to pay additional indemnities under specific contractual provisions, the contingent liability of which cannot be measured at present.

C) Commitments and guarantees

Guarantees, net of back-to-back guarantees received, amounted to 33 million euros.

The guarantees provided by third parties to Group companies, amounting to 6,231 million euros, related to guarantees provided by banks and financial institutions as a guarantee of the proper performance of contractual obligations.

In particular, we report:

- the insurance guarantees, which totaled 1,632 million euros, mainly refer to guarantee financing by the TIM Group in applying legal provisions for contracts of Public Administrations and similar bodies;
- the TIM Group had bank guarantees issued in favor of INPS in support of the application - by TIM and some Group companies - of Article 4 of Italian Law 92 of June 28, 2012, for the voluntary redundancy of employees meeting the requirements; the total amount of the guarantees issued is 1,026 million euros, including 973 million euros for TIM S.p.A. and 53 million euros for Group companies.

Lastly, in May 2018, TIM issued a surety to the Prime Minister's Office for 74.3 million euros to secure an appeal to the Lazio Administration Court for a provisional stay of the administrative fine levied on TIM following the preliminary investigation connected with the penalty proceeding initiated under Article 2 of Decree Law 21 of 3/15/2012 (the “Golden Power” law).

There are also surety bonds on the telecommunication services in Brazil for 684 million euros.

d) Assets guaranteeing financial liabilities

The special rate loan contracts granted by the Brazilian Development Bank BNDES (Banco Nacional de Desenvolvimento Econômico e Social) to TIM S.A. for a total value of 125 million euros are covered by specific covenants. In the event of non-compliance with the covenant obligations, BNDES will have a right to the income which transits on the bank accounts of the company.

NOTE 26 REVENUES

This item rose by 472 million euros compared to 2021. The figure breaks down as follows:

(million euros)	2022	2021
Equipment sales	1,188	1,411
Services	14,600	13,905
Total	**15,788**	**15,316**

Revenues from telecommunications services are presented gross of amounts due to other TLC operators, equal to 1,205 million euros (1,264 million euros in 2021), included in Costs of services.

Revenues from services in 2022 include revenues for voice and data services on fixed and mobile networks for Retail customers for 7,919 million euros and for other Wholesale operators for 2,686 million euros.

For a breakdown of revenues by operating segment/geographical area, reference should be made to the Note “Segment Reporting”.

NOTE 27 OTHER INCOME

This item decreased by 59 million euros compared to 2021. The breakdown is as follows:

(million euros)	2022	2021
Late payment fees charged for telephone services	39	39
Recovery of employee benefit expenses, purchases and services rendered	13	12
Capital and operating grants	38	28
Damages, penalties and recoveries connected with litigation	37	27
Estimate revisions and other adjustments	68	71
Income for special training activities	1	67
Other	17	28
Total	**213**	**272**

NOTE 28
ACQUISITION OF GOODS AND SERVICES

This item rose by 689 million euros compared to 2021. The figure breaks down as follows:

(million euros)		2022	2021
Purchase of raw materials and goods	**(a)**	**1,164**	**1,266**
Costs of services:			
Revenues due to other TLC operators		1,205	1,264
Costs for telecommunications network access services		130	119
Commissions, sales commissions and other selling expenses		1,263	974
Advertising and promotion expenses		235	212
Professional and consulting services		311	253
Utilities		507	434
Maintenance costs		518	291
Outsourcing costs for other services		406	378
Mailing and delivery expenses for telephone bills, directories and other materials to customers		37	38
Other service expenses		665	718
	(b)	**5,277**	**4,681**
Lease and rental costs:			
Rent and leases		83	51
TLC circuit subscription charges		189	96
Other lease and rental costs		526	456
	(c)	**798**	**603**
Total	**(a+b+c)**	**7,239**	**6,550**

In 2022, lease and rental costs included around 12 million euros in short-term lease payments of modest value (approximately 11 million euros in 2021).

NOTE 29
EMPLOYEE BENEFITS EXPENSES

This item rose by 239 million euros compared to 2021. The figure breaks down as follows:

(million euros)		2022	2021
Ordinary employee expenses			
Wages and salaries		1,812	1,794
Social security expenses		658	651
Other employee benefits		153	148
	(a)	**2,623**	**2,593**
Costs and provisions for agency contract work	**(b)**	**1**	**—**
Miscellaneous expenses for employees and other labor-related services rendered			
Charges for termination benefit incentives		222	8
Corporate restructuring expenses		329	336
Other		5	4
	(c)	**556**	**348**
Total	**(a+b+c)**	**3,180**	**2,941**

Employee benefits expenses mainly related to the Domestic Business Unit for 2,868 million euros (2,703 million euros in 2021) and to the Brazil Business Unit for 311 million euros (237 million euros in 2021).

“Charges for termination benefit incentives” and “Corporate restructuring expenses” totaled 551 million euros (344 million euros in 2021) and are mainly linked to outgoing managerial and non-managerial staff, envisaged according to the application of art. 4 of Law no. 92 of June 28, 2012 and former art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed, during the year, with the trade unions and referring entirely to the Italian companies of the Domestic Business Unit.

The average salaried workforce, including agency contract workers, stood at 45,912 employees in 2022 (47,942 in 2021). A breakdown by category is as follows:

(number of units)	2022	2021
Executives	589	612
Middle Managers	4,090	4,154
White collars	41,059	43,110
Blue collars	159	54
Employees on payroll	**45,897**	**47,930**
Agency contract workers	15	12
Total average salaried workforce	**45,912**	**47,942**

The headcount at December 31, 2022, including agency contract workers, stood at 50,392 employees (51,929 at December 31, 2021), showing a decrease of 1,537 employees.

NOTE 30
OTHER OPERATING EXPENSES

These decreased by 686 million euros compared to 2021. The breakdown is as follows:

(million euros)	2022	2021
Write-downs and expenses in connection with credit management	236	305
Provision charges	129	704
TLC operating fees and charges	243	189
Indirect duties and taxes	104	99
Penalties, settlement compensation and administrative fines	25	127
Subscription dues and fees, donations, scholarships and traineeships	13	12
Other	66	66
Total	**816**	**1,502**
of which, included in the supplementary disclosure on financial instruments	*236*	*305*

The non-recurring items of 2022 amounted to 77 million euros, mainly due to provisions for disputes, transactions, regulatory sanctions and related potential liabilities. It includes, in particular, a provision made by TIM S.p.A. of 41 million euros for onerous contracts relating to a multi-year agreement concluded in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

In 2021, the non-recurring items amounted to 735 million euros and mainly referred to provisions made for disputes, transactions, regulatory sanctions and related potential liabilities as well as expenses connected with the COVID-19 emergency for provisions made as a consequence of the worsening of the expected credit losses of Corporate customers, connected with the expected evolution of the pandemic. Provision charges included 548 million euros for the posting of a Contractual Risk Provision for Onerous Contracts (IAS 37) relating to certain contracts for the offer of multimedia content connected with the partnerships currently in place.

For more details, see the Note on “Provisions for risks and charges”.

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

NOTE 31
INTERNALLY GENERATED ASSETS

This item rose by 84 million euros compared to 2021. The figure breaks down as follows:

(million euros)	2022	2021
Intangible assets with a finite useful life	244	216
Tangible assets	315	259
Total	**559**	**475**

They mainly refer to the capitalization of labor costs relating to design, construction and testing of network infrastructure and systems, as well as software development and development of network solutions, applications and innovative services.

NOTE 32
DEPRECIATION AND AMORTIZATION

These increased by 287 million euros compared to 2021. The breakdown is as follows:

(million euros)		2022	2021
Amortization of intangible assets with a finite useful life			
Industrial patents and intellectual property rights		1,069	1,043
Concessions, licenses, trademarks and similar rights		442	466
Other intangible assets		6	2
	(a)	**1,517**	**1,511**
Depreciation of tangible assets owned			
Buildings (civil and industrial)		37	35
Plant and equipment		2,145	2,095
Manufacturing and distribution equipment		8	9
Other		158	145
	(b)	**2,348**	**2,284**
Amortization of rights of use assets			
Property		398	343
Plant and equipment		474	314
Other tangible assets		38	37
Intangible assets		2	1
	(c)	**912**	**695**
Total	**(a+b+c)**	**4,777**	**4,490**

For further details refer to the Notes "Intangible assets with a finite useful life", "Tangible assets" and "Rights of use assets".

For a breakdown of depreciation and amortization by operating segment/geographical area, reference should be made to the Note "Segment Reporting".

NOTE 33
GAINS/(LOSSES) ON DISPOSALS OF NON-CURRENT ASSETS

This item was broken down as follows:

(million euros)		2022	2021
Gains on disposals of non-current assets:			
Gains on the retirement/disposal of intangible, tangible and user rights on rental		50	15
	(a)	**50**	**15**
Losses on disposals of non-current assets:			
Losses on the retirement/disposal of intangible, tangible and user rights on rental		14	14
	(b)	**14**	**14**
Total	**(a-b)**	**36**	**1**

NOTE 34

IMPAIRMENT REVERSALS (LOSSES) ON NON-CURRENT ASSETS

This item was broken down as follows:

(million euros)		2022	2021
Impairment reversals on non-current assets:			
on intangible assets		—	—
on tangible assets		—	—
	(a)	**—**	**—**
Impairment losses on non-current assets:			
on intangible assets		—	4,120
on tangible assets		—	
	(b)	**—**	**4,120**
Total	**(a-b)**	**—**	**(4,120)**

The net impairment losses on non-current assets were null in 2022.

In detail, in accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on an annual basis, when preparing the company's separate and consolidated financial statements.

In preparing the Annual Report for 2022, the TIM Group carried out an impairment test on goodwill. The results of that testing, carried out in accordance with the specific procedure adopted by the Group, confirmed the amounts of Goodwill allocated to the Group's individual Cash Generating Units.

Net impairment losses on non-current assets for the year 2021 amounted to 4,120 million euros and related to the Goodwill impairment loss attributed to the Domestic Cash Generating Unit.

Further details are provided in the Note "Goodwill".

NOTE 35

OTHER INCOME (EXPENSES) FROM INVESTMENTS

Details are as follows:

(million euros)	2022	2021
Dividends from Other investments	2	1
Net gains on the sale of investments in associates and joint ventures accounted for using the equity method	206	119
Sundry income (expense)	(2)	6
Total	**206**	**126**
of which, included in the supplementary disclosure on financial instruments	*2*	*3*

In 2022, the item mainly included:

- the net capital gain of 171 million euros connected with the August 2022 sale of 41% of the share capital of the holding company Daphne 3, which holds a 30.2% share in Infrastrutture Wireless Italiane - INWIT;
- the net capital gain of 33 million euros connected with the October 2022 sale of the equity investment in Satispay.

In 2021, the item mainly included the net capital gain consequent to the dilution from 100% to 49% of the investment held in the Brazilian company I-Systems S.A. (119 million euros).

NOTE 36
FINANCE INCOME AND EXPENSES

Finance income (expenses) showed a net expense of 1,423 million euros (expense of 1,150 million euros in 2021) and comprises:

(million euros)	2022	2021
Finance income	1,115	1,124
Finance expenses	(2,538)	(2,274)
Net finance income (expenses)	**(1,423)**	**(1,150)**

The items break down as follows:

(million euros)		2022	2021
Interest expenses and other finance expenses:			
Interest expenses and other costs relating to bonds		(766)	(839)
Interest expenses to banks		(127)	(51)
Interest expenses to others		(51)	(24)
Finance expenses on lease liabilities		(377)	(271)
		(1,321)	**(1,185)**
Commissions		(70)	(61)
Other finance expenses (*)		(200)	(126)
		(270)	**(187)**
Interest income and other finance income:			
Interest income		122	75
Income from financial receivables, recorded in Non-current assets		3	8
Income from securities other than investments, recorded in Non-current assets		—	—
Income from securities other than investments, recorded in Current assets		23	20
Miscellaneous finance income (*)		51	39
		199	**142**
Total net finance interest/(expenses)	**(a)**	**(1,392)**	**(1,230)**
Other components of finance income and expenses:			
Net exchange gains and losses		23	39
Net result from derivatives		39	117
Net fair value adjustments to fair value hedge derivatives and underlying instruments		—	(4)
Net fair value adjustments to non-hedging derivatives		(93)	(72)
Total other components of finance income and expenses	**(b)**	**(31)**	**80**
Total net finance income (expenses)	**(a+b)**	**(1,423)**	**(1,150)**
of which, included in the supplementary disclosure on net financial instruments		*(1,142)*	*(936)*

(*) of which IFRS 9 impact:

(million euros)	2022	2021
Income from negative adjustment of IFRS 9 impairment reserve on financial assets measured at FVTOCI	*1*	*4*
Expenses from positive adjustment of IFRS 9 impairment reserve on financial assets measured at FVTOCI	*(7)*	*(1)*
Income/Expenses from IFRS 9 reserve impairment on financial assets measured at FVTOCI	*(6)*	*3*
Reversal of IFRS 9 impairment reserve on financial assets measured at FVTOCI	—	*5*
Impairment losses on financial assets other than investments	—	—

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

For greater clarity of presentation, the net effects relating to derivative financial instruments are summarized in the following table:

(million euros)		2022	2021
Foreign currency conversion gains		360	411
Exchange losses		(337)	(372)
Net exchange gains and losses		**23**	**39**
Income from fair value hedge derivatives		2	33
Charges from fair value hedge derivatives		(1)	—
Net result from fair value hedge derivatives	**(a)**	**1**	**33**
Positive effect of the reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)		426	366
Negative effect of the reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)		(321)	(295)
Net effect of the Reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)	**(b)**	**105**	**71**
Income from non-hedging derivatives		56	43
Charges from non-hedging derivatives		(123)	(30)
Net result from non-hedging derivatives	**(c)**	**(67)**	**13**
Net result from derivatives	**(a+b+c)**	**39**	**117**
Positive fair value adjustments to fair value hedge derivatives		—	—
Negative fair value adjustments relating to financial assets and liabilities underlying fair value hedge derivatives		—	—
Net fair value adjustments	**(d)**	**—**	**—**
Positive fair value adjustments to Underlying financial assets and liabilities of fair value hedge derivatives		3	50
Negative fair value adjustments relating to fair value hedge derivatives		(3)	(54)
Net fair value adjustments	**(e)**	**—**	**(4)**
Net fair value adjustments to fair value hedge derivatives and underlying instruments	**(d+e)**	**—**	**(4)**
Positive fair value adjustments to non-hedging derivatives	(f)	69	79
Negative fair value adjustments to non-hedging derivatives	(g)	(162)	(151)
Net fair value adjustments to non-hedging derivatives	**(f+g)**	**(93)**	**(72)**

NOTE 37
PROFIT (LOSS) FOR THE YEAR

The profit (loss) for the year can be analyzed as follows:

(million euros)	2022	2021
Profit (loss) for the year	**(2,654)**	**(8,400)**
Attributable to:		
Owners of the Parent:		
Profit (loss) from continuing operations	(2,925)	(8,652)
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to owners of the Parent	**(2,925)**	**(8,652)**
Non-controlling interests:		
Profit (loss) from continuing operations	271	252
Profit (loss) from Discontinued operations/Non-current assets held for sale	—	—
Profit (loss) for the year attributable to Non-controlling interests	**271**	**252**

NOTE 38
EARNINGS PER SHARE

		2022	2021
Basic earnings per share			
Profit (loss) for the year attributable to owners of the Parent		(2,925)	(8,652)
Less: additional dividends for the savings shares (0.011 euros per share and up to capacity)		—	—
	(million euros)	(2,925)	(8,652)
Average number of ordinary and savings shares	(millions)	21,241	21,205
Basic earnings per share – Ordinary shares	(euros)	(0.14)	(0.40)
Plus: additional dividends per savings share		—	—
Basic earnings per share – Savings shares	(euros)	(0.14)	(0.40)
Basic earnings per share from continuing operations			
Profit (loss) from continuing operations attributable to Owners of the Parent		(2,925)	(8,652)
Less: additional dividends for the savings shares		—	—
	(million euros)	(2,925)	(8,652)
Average number of ordinary and savings shares	(millions)	21,241	21,205
Basic earnings per share from continuing operations – Ordinary shares	(euros)	(0.14)	(0.40)
Plus: additional dividends per savings share		—	—
Basic earnings per share from continuing operations – Savings shares	(euros)	(0.14)	(0.40)
Basic earnings per share from Discontinued operations/Non-current assets held for sale			
Profit (loss) from Discontinued operations/Non-current assets held for sale	(million euros)	—	—
Average number of ordinary and savings shares	(millions)	21,241	21,205
Basic earnings per share from Discontinued operations/Non-current assets held for sale – Ordinary shares	(euros)	—	—
Basic earnings per share from Discontinued operations/Non-current assets held for sale – Savings shares	(euros)	—	—

	2022	2021
Average number of ordinary shares	15,213,524,300	15,177,486,840
Average number of savings shares	6,027,791,699	6,027,791,699
Total	**21,241,315,999**	**21,205,278,539**

		2022	2021
Diluted earnings per share			
Profit (loss) for the year attributable to owners of the Parent		(2,925)	(8,652)
Dilution effect of stock option plans and convertible bonds (*)		—	—
Less: additional dividends for the savings shares (0.011 euros per share and up to capacity)		—	—
	(million euros)	(2,925)	(8,652)
Average number of ordinary and savings shares	(millions)	21,241	21,205
Diluted earnings per share – Ordinary shares	(euros)	(0.14)	(0.40)
Plus: additional dividends per savings share		—	—
Diluted earnings per share – Savings shares	(euros)	(0.14)	(0.40)
Diluted earnings per share from continuing operations			
Profit (loss) from continuing operations attributable to Owners of the Parent		(2,925)	(8,652)
Dilution effect of stock option plans and convertible bonds (*)		—	—
Less: additional dividends for the savings shares		—	—
	(million euros)	(2,925)	(8,652)
Average number of ordinary and savings shares	(millions)	21,241	21,205
Diluted earnings per share from continuing operations – Ordinary shares	(euros)	(0.14)	(0.40)
Plus: additional dividends per savings share		—	—
Diluted earnings per share from continuing operations – Savings shares	(euros)	(0.14)	(0.40)
Diluted earnings per share from Discontinued operations/Non-current assets held for sale			
Profit (loss) from Discontinued operations/Non-current assets held for sale	(million euros)	—	—
Dilution effect of stock option plans and convertible bonds		—	—
Average number of ordinary and savings shares	(millions)	21,241	21,205
Diluted earnings per share from Discontinued operations/Non-current assets held for sale – Ordinary shares	(euros)	—	—
Diluted earnings per share from Discontinued operations/Non-current assets held for sale – Savings shares	(euros)	—	—

	2022	2021
Average number of ordinary shares (*)	15,213,524,300	15,177,486,840
Average number of savings shares	6,027,791,699	6,027,791,699
Total	**21,241,315,999**	**21,205,278,539**

(*) The average number of ordinary shares also includes the potential ordinary shares relating to the equity compensation plans of employees for which the (market and non-market) performance conditions have been met, in addition to the theoretical number of shares that are issuable as a result of the conversion of the unsecured equity-linked convertible bond reimbursed on March 26, 2022. Consequently, the "Net profit (loss) for the year attributable to owners of the Parent" and the "Profit (loss) from continuing operations attributable to owners of the Parent" are also adjusted to exclude the effects, net of tax, related to the above-mentioned plans and to the convertible bond (+10 million euros in 2022; +43 million euros in 2021). As regards 2022 and 2021, however, these effects have not been included in the calculation insofar as, in accordance with the provisions of IAS 33, the latter are allegedly anti-diluting.

Future potential changes in share capital

The table below shows future potential changes in share capital, based on the long-term share incentive plans, still outstanding at December 31, 2022:

	Number of maximum shares issuable	Share capital (thousands of euros)	Additional paid-in capital (thousands of euros)	Subscription price per share (euros)
Capital increases already approved (ordinary shares)				
2020-2022 Long Term Incentive Plan (free issue)	180,000,000			
2022-2024 Stock Options Plan	257,763,000	109,292		0.424
Total	**437,763,000**	**109,292**		

Further information is provided in the Notes "Non-current and current financial liabilities" and "Equity compensation plans".

NOTE 39
SEGMENT REPORTING

a) Segment reporting

The operating segments of the TIM Group, organized for the telecommunications business and the related geographical location are as follows:

- **Domestic**: includes the activities in Italy relating to voice and data services on fixed and mobile networks for end customers (retail) and other operators (wholesale), the activities of the Telecom Italia Sparkle group which, at international level (in Europe, the Mediterranean and South America), develops fiber optic networks for wholesale customers, the operations of the company FiberCop S.p.A. for the provision of passive access services on the secondary copper and fiber network, the activities of Noovle S.p.A.(Cloud and Edge Computing solutions), the activities of Olivetti (Information Technology products and services) and support structures for the Domestic sector;
- **Brazil**: includes mobile and fixed telecommunications operations in Brazil (TIM S.A. group);
- **Other Operations**: include the financial companies (Telecom Italia Capital S.A. and Telecom Italia Finance S.A.) and other minor companies not strictly related to the TIM Group's core business.

In view of the decision-making process adopted by the TIM Group, segment reporting is presented for financial operating data.

The results of financial management, income tax expense for the year, as well as profit (loss) from Discontinued operations / Non-current assets held for sale are presented at a consolidated level.

Separate Consolidated Income Statement by Operating Segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Third-party revenues	11,826	12,477	3,962	2,839	—	—	—	—	15,788	15,316
Intragroup revenues	32	28	1	1	—	—	(33)	(29)	—	—
Revenues by operating segment	**11,858**	**12,505**	**3,963**	**2,840**	**—**	**—**	**(33)**	**(29)**	**15,788**	**15,316**
Other income	196	259	17	13	—	—	—	—	213	272
Total operating revenues and other income	**12,054**	**12,764**	**3,980**	**2,853**	**—**	**—**	**(33)**	**(29)**	**16,001**	**15,588**
Acquisition of goods and services	(5,697)	(5,534)	(1,562)	(1,037)	(7)	(3)	27	24	(7,239)	(6,550)
Employee benefits expenses	(2,868)	(2,703)	(311)	(237)	(1)	(1)	—	—	(3,180)	(2,941)
of which: provisions for employee severance indemnities	—	(1)	—	—	—	—	—	—	—	(1)
Other operating expenses	(444)	(1,211)	(367)	(282)	(4)	(8)	(1)	(1)	(816)	(1,502)
of which: write-downs and expenses in connection with credit management and provision charges	(226)	(896)	(139)	(113)		—	—	—	(365)	(1,009)
Change in inventories	16	17	6	(7)	—	—	—	—	22	10
Internally generated assets	458	397	93	72	—	—	8	6	559	475
EBITDA	**3,519**	**3,730**	**1,839**	**1,362**	**(12)**	**(12)**	**1**	**—**	**5,347**	**5,080**
Depreciation and amortization	(3,518)	(3,595)	(1,259)	(895)	—	—	—	—	(4,777)	(4,490)
Gains (losses) on disposals of non-current assets	23	(5)	13	6	—	—	—	—	36	1
Impairment reversals (losses) on non-current assets	—	(4,120)	—	—	—	—	—	—	—	(4,120)
EBIT	**24**	**(3,990)**	**593**	**473**	**(12)**	**(12)**	**1**	**—**	**606**	**(3,529)**
Share of losses (profits) of associates and joint ventures accounted for using the equity method	35	40	(11)	(2)	—	—	(1)	—	23	38
Other income (expenses) from investments									206	126
Finance income									1,115	1,124
Finance expenses									(2,538)	(2,274)
Profit (loss) before tax from continuing operations									**(588)**	**(4,515)**
Income tax expense									(2,066)	(3,885)
Profit (loss) from continuing operations									**(2,654)**	**(8,400)**
Profit (loss) from Discontinued operations/Non-current assets held for sale									—	—
Profit (Loss) for the year									**(2,654)**	**(8,400)**
Attributable to:										
Owners of the Parent									**(2,925)**	**(8,652)**
Non-controlling interests									271	252

Revenues by operating segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Revenues from equipment sales - third party	1,059	1,322	129	88	—	—	—	1	1,188	1,411
Revenues from equipment sales - intragroup	—	—	—	—	—	—	—	—	—	—
Total revenues from equipment sales	**1,059**	**1,322**	**129**	**88**	—	**—**	**—**	**1**	**1,188**	**1,411**
Revenues from services - third party	10,767	11,155	3,833	2,751	—	—	—	(1)	14,600	13,905
Revenues from services - intragroup	32	28	1	1	—	—	(33)	(29)	—	—
Total revenues from services	**10,799**	**11,183**	**3,834**	**2,752**	—	**—**	**(33)**	**(30)**	**14,600**	**13,905**
Total third-party revenues	11,826	12,477	3,962	2,839	—	—	—	—	15,788	15,316
Total intragroup revenues	32	28	1	1	—	—	(33)	(29)	—	—
Total revenues by operating segment	**11,858**	**12,505**	**3,963**	**2,840**	**—**	**—**	**(33)**	**(29)**	**15,788**	**15,316**

Purchase of intangible, tangible and rights of use assets by operating segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Purchase of intangible assets	913	1,204	215	682	—	—	—	—	1,128	1,886
Purchase of tangible assets	2,178	2,095	650	570	—	—	—	—	2,828	2,665
Purchase of rights of use assets	464	304	489	442	—	—	—	—	953	746
Total purchase of intangible, tangible and rights of use assets	**3,555**	**3,603**	**1,354**	**1,694**	**—**	**—**	**—**	**—**	**4,909**	**5,297**
of which: capital expenditures	*3,207*	*3,377*	*870*	*1,253*	—	—	—	—	*4,077*	*4,630*
of which: increases in lease/leasing contracts for rights of use assets	*348*	*226*	*484*	*441*	—	—	—	—	*832*	*667*

Headcount by Operating Segment

(number of units)	Domestic		Brazil		Other Operations		Consolidated Total	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021
Headcount	**40,984**	**42,591**	**9,395**	**9,325**	**13**	**13**	**50,392**	**51,929**

Assets and liabilities by Operating Segment

(million euros)	Domestic		Brazil		Other Operations		Adjustments and eliminations		Consolidated Total	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021
Non-current operating assets	40,747	40,805	7,970	5,332	1	1	2	1	48,720	46,139
Current operating assets	3,975	3,794	907	864	19	19	(40)	(37)	4,861	4,640
Total operating assets	44,722	44,599	8,877	6,196	20	20	(38)	(36)	53,581	50,779
Investments accounted for using the equity method	262	2,725	277	253	—	—	—	1	539	2,979
Discontinued operations /Non-current assets held for sale										—
Unallocated assets									7,907	15,429
Total Assets									**62,027**	**69,187**
Total operating liabilities	8,886	10,890	2,133	1,671	23	29	(105)	(81)	10,937	12,509
Liabilities directly associated with Discontinued operations/Non-current assets held for sale										—
Unallocated liabilities									32,365	34,639
Equity									18,725	22,039
Total Equity and Liabilities									**62,027**	**69,187**

b) Reporting by geographical area

(million euros)		Revenues: Breakdown by location of operations		Revenues: Breakdown by location of customers		Non-current operating assets: Breakdown by location of operations	
		2022	2021	2022	2021	12/31/2022	12/31/2021
Italy	(a)	11,553	12,189	10,928	11,557	40,495	40,542
Outside Italy	(b)	4,235	3,127	4,860	3,759	8,225	5,597
Total	**(a+b)**	**15,788**	**15,316**	**15,788**	**15,316**	**48,720**	**46,139**

c) Information about major customers

None of the TIM Group's customers exceeds 10% of consolidated revenues.

NOTE 40
RELATED-PARTY TRANSACTIONS

The following tables show the figures relating to related party transactions and the impact of those amounts on the separate consolidated income statement, consolidated statements of financial position and consolidated statements of cash flows.

Related-party transactions, when not dictated by specific laws, were conducted at arm's length. They were performed in compliance with the internal procedure, which sets forth rules designed to ensure the transparency and fairness of the transactions in accordance with Consob Regulation 17221/2010. The current procedure is available on the website gruppotim.it, under the Group - Governance - Governance Tools - Other Codes and Procedures section.

The effects of the related-party transactions on the TIM Group separate consolidated income statement line items for 2022 and 2021 are as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS 2022

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	Total related parties (b)	% of financial statement item (b/a)
Revenues	15,788	17	154			171	1.1
Other income	213	3				3	1.4
Acquisition of goods and services	7,239	270	221			491	6.8
Employee benefits expenses	3,180			76	24	100	3.1
Depreciation and amortization	4,777	29	4			33	0.7
Finance expenses	2,538	12				12	0.5

(*) Vivendi Group and companies belonging to the group that it belongs to, Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS 2021

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	Total related parties (b)	% of financial statement item (b/a)
Revenues	15,316	31	31			62	0.4
Other income	272	1	11			12	4.4
Acquisition of goods and services	6,550	355	142			497	7.6
Employee benefits expenses	2,941			74	34	108	3.7
Other operating expenses	1,502	3				3	0.2
Depreciation and amortization	4,490	50				50	1.1
Finance income	1,124		1			1	0.1
Finance expenses	2,274	18				18	0.8

(*) Vivendi Group and companies belonging to the group that it belongs to, Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

The effects of related-party transactions on the TIM Group separate consolidated statements of financial position line items at December 31, 2022 and December 31, 2021, are as follows:

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS AT 12/31/2022

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Net financial debt						
Non-current financial receivables arising from lease contracts	**(49)**		(1)		**(1)**	2.0
Current financial receivables arising from lease contracts	**(69)**		(11)		**(11)**	15.9
Non-current financial liabilities for lease contracts	**4,597**		10		**10**	0.2
Current financial liabilities for lease contracts	**870**		13		**13**	1.5
Total net financial debt	**25,370**		11		**11**	—
Other statement of financial position line items						
Rights of use assets	**5,488**		38		**38**	0.7
Miscellaneous receivables and other non-current assets	**2,365**	1			**1**	—
Trade and miscellaneous receivables and other current assets	**4,539**	26	55		**81**	1.8
Miscellaneous payables and other non-current liabilities	**1,146**		21		**21**	1.8
Trade and miscellaneous payables and other current liabilities	**8,199**	34	91	24	**149**	1.8

(*) Vivendi Group and companies belonging to the group that it belongs to, Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS AT 12/31/2021

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Net financial debt						
Non-current financial receivables arising from lease contracts	**(45)**		(1)		**(1)**	2.2
Non-current financial liabilities for lease contracts	**4,064**	269			**269**	6.6
Current financial liabilities for financing contracts and others	**5,945**	1			**1**	—
Current financial liabilities for lease contracts	**651**	74			**74**	11.4
Total net financial debt	**22,416**	**344**	**(1)**		**343**	**1.5**
Other statement of financial position line items						
Rights of use assets	**4,847**	299	2		**301**	6.2
Trade and miscellaneous receivables and other current assets	**4,358**	24	56		**80**	1.8
Miscellaneous payables and other non-current liabilities	**1,413**	2	25		**27**	1.9
Trade and miscellaneous payables and other current liabilities	**9,473**	182	60	23	**265**	2.8

(*) Vivendi Group and companies belonging to the group that it belongs to, Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

The effects of the related-party transactions on the significant TIM Group consolidated statements of cash flows line items for 2022 and 2021 are as follows:

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS 2022

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Purchase of intangible, tangible and rights of use assets on an accrual basis	**4,909**	42	29		**71**	—

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS 2021

(million euros)	Total (a)	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Total related parties (b)	% of financial statement item (b/a)
Purchase of intangible, tangible and rights of use assets on an accrual basis	**5,297**	8	15		**23**	0.4
Dividends paid	**368**		51		**51**	13.9

(*) Vivendi Group and companies belonging to the group that it belongs to, Cassa Depositi e Prestiti (CDP) and its subsidiaries and other related parties through Directors, Statutory Auditors and Key Managers.

Transactions with associates, subsidiaries of associates and joint ventures

Under the scope of the reorganization of Italtel S.p.A., on April 1, 2022, TIM S.p.A. subscribed to part of the company's share capital increase, taking the share held by the TIM Group in Italtel S.p.A. to 17.72%.

Italtel S.p.A. is also subject to the considerable influence of TIM S.p.A. in accordance with IAS 28 (Investments in Associates and Joint Ventures).

Therefore, starting April 1, 2022, the company is considered an associate and its subsidiaries are considered related parties of the TIM Group.

In accordance with Art. 5, subsections 8 and 9 of Consob Regulation no. 17221 of March 12, 2010 concerning "Related-Party Transactions" and subsequent amendments, in 2022, the carrying out of the Transaction of greater importance is noted, as defined by Art. 4, subsection 1, letter a) of the above regulation and by Art. 7 of the Company's Related-Party Transactions Procedure, following the award of the European open tender procedure for the award, by public-private partnership contract, of the development and management of the National Strategic Hub.

The most significant values of the transactions with associates, subsidiaries of associates and joint ventures are summarized as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	TYPE OF CONTRACT
Revenues			
Polo Strategico Nazionale S.p.A.	16		Products and services related to the start-up phase of the National Strategic Hub.
INWIT S.p.A.	15	42	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing.
I-Systems S.A.	7	1	Services supplied by TIM S.A.
Italtel S.p.A.	1		Supply of fixed and mobile telephone services including equipment, Microsoft licenses and outsourcing services.
NordCom S.p.A.	1	1	Fixed and mobile voice services, equipment, data network connections and outsourcing.
TIMFin S.p.A.	(23)	(13)	Mobile and fixed voice services, outsourced services, fees and margins for miscellaneous costs for loans.
Total revenues	**17**	**31**	
Other income	**3**	**1**	Recovery of seconded personnel costs, recovery of centralized expenses.
Acquisition of goods and services			
INWIT S.p.A.	167	341	Supply of services for BTS sites, power supply systems for the supply of electricity of the hosted devices, monitoring and security services (alarms) and management and maintenance services, remote management and monitoring of the electricity consumption of TIM technological infrastructures (BTS) hosted at INWIT sites.
I-Systems S.A.	67	5	Supply of multimedia communication services and capacity services.
Italtel S.p.A.	27		Supply of equipment, software licenses, professional services, hardware and software maintenance services connected with TIM offers to end customers, supply of network and security equipment maintenance services for a time-frame of 24 months, linked to the TIM offer for the customer Poste Italiane.
W.A.Y. S.r.l.	8	8	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development.
Other minor companies	1	1	
Total acquisition of goods and services	**270**	**355**	
Other operating expenses	**—**	**3**	Penalties for breach of contract on maintenance management services to INWIT S.p.A.
Depreciation and amortization	**29**	**50**	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term, towards INWIT S.p.A.
Finance expenses			
INWIT S.p.A.	9	15	Finance expenses for interest related to financial liabilities for rights of use.
TIMFin S.p.A.	3	3	Finance expenses for commission and other finance expenses.
Total finance expenses	**12**	**18**	

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	TYPE OF CONTRACT
Net financial debt			
Non-current financial liabilities for lease contracts	**—**	**269**	Non-current financial liabilities related to the recognition of rights of use for lease liabilities with INWIT S.p.A.
Current financial liabilities for lease contracts	**—**	**74**	Current financial liabilities related to the recognition of rights of use for lease liabilities with INWIT S.p.A.
Current financial liabilities for financing contracts and others	**—**	**1**	Financial liabilities for expenses on the transfer of receivables in respect of TIMFin S.p.A.
Other statement of financial position line items			
Rights of use assets	**—**	**299**	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term, towards INWIT S.p.A.
Miscellaneous receivables and other non-current assets	**1**		Other deferred costs to Italtel S.p.A.
Trade and miscellaneous receivables and other current assets			
Polo Strategico Nazionale S.p.A.	20		Products and services related to the start-up phase of the National Strategic Hub.
I-Systems S.A.	3	1	Services supplied by TIM S.A.
Italtel S.p.A.	1		Supply of fixed and mobile telephone services including Microsoft devices and licenses.
W.A.Y. S.r.l.	1	2	Deferred costs for supply of customized platforms, application offers and fixed and mobile voice services.
Other minor companies	1	1	
INWIT S.p.A.	—	20	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing.
Total trade and miscellaneous receivables and other current assets	**26**	**24**	
Miscellaneous payables and other non-current liabilities	**—**	**2**	Deferred subscription charge revenues from INWIT S.p.A.
Trade and miscellaneous payables and other current liabilities			
Italtel S.p.A.	15		Supply contracts connected with investment and operation.
I-Systems S.A.	9	5	Supply of multimedia communication services and capacity services.
TIMFin S.p.A.	8	3	Cost of the risk for loans.
W.A.Y. S.r.l.	2	2	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development.
INWIT S.p.A.	—	171	Supply of services for BTS sites, monitoring and security services, management and maintenance services.
Movenda S.p.A.	—	1	Supply and certification of SIM-cards, software systems.
Total trade and miscellaneous payables and other current liabilities	**34**	**182**	

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2022	2021	TYPE OF CONTRACT
Purchase of intangible, tangible and rights of use assets on an accrual basis			
Italtel S.p.A.	35	-	Software development, FTTH design for FiberCop works, supply of hardware and software, installations of hardware and engineering services for the network platforms.
INWIT S.p.A.	7	7	IRU acquisition of backhauling connections, supply of plants, installation and related activations for the extension of indoor radio mobile coverage relating to TIM offerings to end customers.
Movenda S.p.A.	—	1	Supply and development systems software.
Total purchase of intangible, tangible and rights of use assets on an accrual basis	**42**	**8**	

Transactions with other related parties (through directors, statutory auditors and key managers, as well as participants in shareholder agreements pursuant to Article 122 of the Consolidated Law on Finance)

Details are provided below of the transactions with:

- Vivendi Group and the companies of the group that it belongs to;
- CDP Group (Cassa Depositi e Prestiti and Group subsidiaries);
- Companies related through Directors, Statutory Auditors and Key Managers with strategic responsibilities.

The most significant amounts are summarized as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	TYPE OF CONTRACT
Revenues			
Cassa Depositi e Prestiti Group	153	30	Transfer of rights to use lead-in ducts and revenues for the rental of vertical segments, IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services, electricity supply services.
Vivendi group	1	1	Circuit rental services and feasibility study for routing and submarine cable interface solutions in America to the Vivendi Group.
Total revenues	**154**	**31**	
Other income		11	Reimbursement by a CDP Group company due to Telenergia following the judgment of the Council of State no. 5625-2021s, published on 7/30/2021.
Acquisition of goods and services			
Cassa Depositi e Prestiti Group	77	31	Supply of cloud enabling services for the award of cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, Concession of the installation of sheaths for telecommunication cables along the motorway segments (occupation of soil and movement of cables), use and maintenance of the former Metroweb network of Milan and Genoa (primary network portion) and purchase of electricity
Havas Group	139	107	Purchase of media space on behalf of the TIM Group and, to a lesser extent, development and delivery of advertising campaigns.
Vivendi group	5	4	Purchase of musical and television digital content (TIMmusic, TIMvision), operative management of the Telecom Italia S.p.A. on-line store platform “TIM I Love Games” and related developments.
Total acquisition of goods and services	**221**	**142**	
Depreciation and amortization	**4**		IRUs acquired by FiberCop to Cassa Depositi e Prestiti
Finance income		**1**	

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	TYPE OF CONTRACT
Net financial debt			
Non-current financial assets	**(1)**		Non-current financial receivables arising from lease contracts for Cassa Depositi e Prestiti.
Current financial assets	**(11)**	**1**	Current financial receivables arising from lease contracts (portion not collected IRU lead-in ducts) for Cassa Depositi e Prestiti
Non-current financial liabilities	**10**		Lease contract renewal (former Metroweb) for Cassa Depositi e Prestiti
Current financial liabilities	**13**		Payable for purchase in IRU infrastructures, contract former Metroweb for Cassa Depositi e Prestiti
Other statement of financial position line items			
Rights of use assets	**38**	**2**	Supply and installation of vertical segments and infrastructure for Cassa Depositi e Prestiti
Trade and miscellaneous receivables and other current assets			
Cassa Depositi e Prestiti Group	55	43	IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services and electricity supply.
Havas Group	—	13	Prepaid expenses related to costs for advertising services.
Total trade and miscellaneous receivables and other current assets	**55**	**56**	
Miscellaneous payables and other non-current liabilities			
Cassa Depositi e Prestiti Group	19	23	Deferred subscription charges revenues.
Vivendi group	2	2	Deferred income for IRU sale.
Total miscellaneous payables and other non-current liabilities	**21**	**25**	
Trade and miscellaneous payables and other current liabilities			
Cassa Depositi e Prestiti Group	47	21	Supply of cloud enabling services for the award of cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, Concession of the installation of sheaths for telecommunication cables along the motorway segments (occupation of soil and movement of cables), use and maintenance of the former Metroweb network of Milan and Genoa (primary network portion) and purchase of electricity.
Havas Group	42	37	Purchase of media space on behalf of the TIM Group and, to a lesser extent, development and delivery of advertising campaigns.
Vivendi group	2	2	Purchase of musical and television digital content (TIMmusic, TIMvision), operative management of the Telecom Italia S.p.A. on-line store platform “TIM I Love Games” and related developments.
Total trade and miscellaneous payables and other current liabilities	**91**	**60**	

CONSOLIDATED STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2022	2021	TYPE OF CONTRACT
Purchase of intangible, tangible and rights of use assets on an accrual basis			
Cassa Depositi e Prestiti Group	28	-	Concession of the installation of sheaths for telecommunication cables along the motorway segments (occupation of soil and movement of cables), use and maintenance of the former Metroweb network of Milan and Genoa (primary network portion).
Vivendi group	1	16	Development of the discovery phase and MYCanal+ platform supply for the TimVision Service.
Total purchase of intangible, tangible and rights of use assets on an accrual basis	**29**	**16**	
Dividends paid			
Cassa Depositi e Prestiti Group	—	15	Dividends paid.
Vivendi group	—	36	Dividends paid.
Total Dividends paid	**—**	**51**	

Transactions with pension funds

The most significant amounts are summarized as follows:

SEPARATE CONSOLIDATED INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	TYPE OF CONTRACT
Employee benefits expenses			Contributions to pension funds.
Fontedir	9	9	
Telemaco	64	61	
Other pension funds	3	4	
Total employee benefits expenses	**76**	**74**	

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	TYPE OF CONTRACT
Trade and miscellaneous payables and other current liabilities			Payables for contributions to pension funds.
Fontedir	3	3	
Telemaco	20	20	
Other pension funds	1		
Total trade and miscellaneous payables and other current liabilities	**24**	**23**	

Remuneration to key managers

In 2022, the total remuneration recorded on an accrual basis by TIM or by Group subsidiaries in respect of key managers amounted to 24 million euros (34 million euros for 2021)

(million euros)	2022	2021
Short-term remuneration	14 [(1)]	9 [(4)]
Long-term remuneration	1	
Employment termination benefit incentives	5 [(2)]	18
Share-based payments (*)	4 [(3)]	7 [(5)]
Total	**24**	**34**

(*) These refer to the fair value of the rights, accrued to December 31, under the share-based incentive plans of TIM S.p.A. and its subsidiaries (Long Term Incentive and Plans of the subsidiaries).

(1) of which 1.2 million euros recorded by the subsidiaries;
(2) of which 0.1 million euros recorded by the subsidiaries:
(3) of which 2.8 million euros recorded by the subsidiaries:
(4) of which 1.2 million euros recorded by the subsidiaries:
(5) of which 1.0 million euros recorded by the subsidiaries:

Short-term remuneration is paid during the reference year, and, at the latest, within the six months following the end of that period.

In 2022, the contributions paid in to defined contribution plans (Assida and Fontedir) by TIM S.p.A. or by subsidiaries of the Group on behalf of key managers, amounted to 212 thousand euros (140 thousand euros at December 31, 2021).

In 2022, "Key managers", i.e. those who have the power and responsibility, directly or indirectly, for the planning, direction and control of the operations of the TIM Group, including directors, were the following:

Directors:		
Pietro Labriola		Managing Director and Chief Executive Officer of TIM S.p.A.
		General Manager of TIM S.p.A.
	(1)	Diretor Presidente TIM S.A.
Managers:		
Alberto Maria Griselli	(2)	Diretor Presidente TIM S.A.
Giovanna Bellezza	(3)	a.i. Head of Human Resources, Organization & Real Estate
Adrian Calaza Noia	(4)	Chief Financial Office
Paolo Chiriotti	(5)	Chief Human Resources, Organization, Real Estate & Transformation Office
	(6)	Chief Human Resources, Organization & Real Estate Office
	(7)	Chief Human Resources & Organization Office
Simone De Rose		Head of Procurement
Stefano Grassi	(8)	Head of Security
Massimo Mancini		Chief Enterprise Market Office
Giovanni Gionata Massimiliano Moglia		Chief Regulatory Affairs Office
Agostino Nuzzolo		Head of Legal & Tax
Claudio Giovanni Ezio Ongaro		Chief Strategy & Business Development Office
Elisabetta Romano	(9)	Chief Network, Operations & Wholesale Office
	(10)	Chief Executive Officer of TI Sparkle
Giovanni Ronca	(11)	Chief Financial Office
Andrea Rossini	(12)	Chief Consumer, Small & Medium Market Office
Eugenio Santagata	(13)	Chief Public Affairs & Security Office
		Chief Executive Officer of Telsy
Elio Schiavo	(14)	Chief Enterprise and Innovative Solutions Office
Stefano Siragusa	(15)	Chief Executive Officer of Noovle
	(16)	Chief Network, Operations & Wholesale Office

(1) To January 31, 2022
(2) From February 1, 2022
(3) To March 29, 2022
(4) From March 1, 2022
(5) From March 30, 2022 to August 2, 2022
(6) From August 3, 2022 to October 16, 2022
(7) From October 17, 2022
(8) To April 8, 2022
(9) From August 3, 2022
(10) From August 3 to November 16, 2022
(11) To February 28, 2022
(12) From February 21, 2022
(13) From April 9, 2022
(14) From May 16, 2022
(15) From November 29, 2022
(16) To August 2, 2022

NOTE 41
EQUITY COMPENSATION PLANS

Equity compensation plans in force at December 31, 2022, are used for attraction and retention purposes, and as a long-term incentive for the managers and employees of the Group.

However, it should be noted that these plans do not have any significant effect on the economic result or on the financial position or on cash flows at December 31, 2022.

A summary is provided below of the plans in place at December 31, 2022.

Description of stock option plans

TIM S.p.A. 2022-2024 Stock Option Plan

The Shareholders' Meeting held on April 7, 2022, approved the one-shot 2022-2024 Stock Option Plan. The Plan aims to encourage Beneficiaries to create value for the Company's shareholders, aligning management's interests with the interests of TIM shareholders in terms of achieving the qualified objectives of the Industrial Plan and growth in the value of the Share in the medium-term. The Plan intends to also assure the possibility of attracting new managers from the outside, as the Industrial Plan is implemented.

The 2022-2024 Stock Options Plan is intended for the CEO, Top Management and a select number of managers of the TIM Group who hold key roles in terms of achieving the Strategic Plan objectives. Addressees are, in addition to the CEO, broken down into three pay opportunity brackets according to the contribution and impact of the role held on the company's strategic objectives; for each bracket, the number of option rights attributed at target, is determined.

The Plan has a strike price of 0.4240 euros, a three-year vesting period (1/1/2022-12/31/2024) and a two-year exercise period (from approval of the 2024 financial statements and through to the next two years).

The following performance conditions are also envisaged for the three-year period 2022-2024:

- Cumulative (reported) Economic-financial indicator (EBITDA-CAPEX) with a weight of 70%
- ESG indicators with a total weight of 30%, structured into:
  - percentage of women in positions of responsibility (15%)
  - percentage of consumption of renewable energies (15%).

The level of achievement of the indicators determines the accrual of option rights over an interval that ranges from -10% to + 10% with respect to the target number allocated per bracket.

A cap is also envisaged that is commensurate to the maximum economic benefit, calculated by applying a normal value of the share at the moment of assessment of the performance conditions (2024 financial statements), assumed as 1.5 euros, to the number of option rights assigned at target. The cap is applied when the option rights accrue and impacts the number of option rights that can be assigned.

The clawback clause also applies to all addressees of this plan, up to the point of exercise of the option rights.

At December 31, 2022, there were a total of 131 addressees and the number of options assigned at target is 206,210,000.

For more details, see the information document on the initiative available for consultation at the link Information Document on the 2022-2024 Stock Options Plan (https://www.gruppotim.it/content/dam/gt/investitori/doc---avvisi/anno-2022/ita/Doc-informativo-Piano-stock-option-22-24.pdf).

TIM S.A. Stock Option Plans

On April 10, 2014, the General Meeting of Shareholders of TIM Participações S.A. (now incorporated into TIM S.A.) approved the long-term incentive plan for managers in key positions in the company and its subsidiaries. Exercise of the options is not subject to the achievement of specific performance targets, but the strike price is adjusted upwards or downwards during each year for which the plan is in force, according to the ranking of the Total Shareholder Return of the TIM S.A. shares with respect to a panel of peers (made up of companies in the Telecommunications, Information Technology and Media industry).

The vesting period is 3 years (a third per year), the options can be exercised for 6 years, and the company does not have the legal obligation to repurchase or liquidate the options in cash, or in any other form.

Year 2014

On September 29, 2014, the grantees of the options were granted the right to purchase a total of 1,687,686 shares. At December 31, 2022, there are no options that can be exercised. Out of the total attributed, 1,558,043 options have been canceled (due to the participants leaving the company or for expiry of the exercise period), and 129,643 options have been exercised.

Year 2015

On October 16, 2015, the grantees of the options were granted the right to purchase a total of 3,355,229 shares. As of December 31, 2022, 100% of the options were considered as vested, and there are no options that can be exercised. Of the total options granted, 1,646,080 were canceled by participants leaving the company. All of the remaining balance (amounting to 1,709,149 options) has been exercised.

Year 2016

On November 8, 2016, the grantees of the options were granted the right to purchase a total of 3,922,204 shares. At December 31, 2022, 100% of the options were considered as vested. Of the total options granted, 1,727,424 were canceled by participants leaving the company. All of the remaining balance (amounting to 2,194,780 options) has been exercised.

Description of other compensation plans

TIM S.p.A. - Long Term Incentive Plan 2020-2022

The Shareholders' Meeting of April 23, 2020 approved the launch of the rolling and equity based long-term incentive plan called LTI 2020-2022.

The Plan envisaged three incentive cycles, connected with the performance three-year periods 2020-2022, 2021-2023, 2022-2024; over time, two of the three incentive cycles have been launched: 2020-2022, 2021-2023.

Each cycle of the plan is divided into two parties:

- **Performance Share**: free allocation of Company ordinary shares, the maturity of which is subject to an access gate and two performance conditions, given below.
- **Attraction/Retention Share**: free allocation of Company ordinary shares, the maturity of which is subject to the continuity of the employment relationship with TIM or TIM Group companies.

In relation to the Performance Share component, the performance conditions are as follows:

- access gate, represented by the value of the security, which at the end of each cycle must be equal to or greater than the value of the security at the start of the same cycle (refer to the normal value of the share equal to the average of the official closing prices of the Stock Exchange 30 days prior to the start and end of the Plan cycle);
- NFP/EBITDA ratio, with relative weighting equal to 40%;
- Relative performance (TSR) of the ordinary share compared to a basket of Peers, with a relative weighting of 60%.

A payout bonus/malus mechanism equal to 4% is applied to both components (Performance Share and Attraction/Retention Share), linked, in equal measure,

- to the percentage growth of use of renewable energy out of total energy and to the reduction of indirect emissions of CO_2 (2020-2022 cycle);
- to the percentage growth of use of renewable energy out of total energy and the increase in the female presence in the managerial population (2021-2023 cycle).

Target recipients are the Chief Executive Officer, the Top Management and a selected segment of TIM Group management.

For the CEO, 100% of the Pay Opportunity is linked to the Performance Share component. For the remaining recipient managers, 70% of the Pay Opportunity is linked to the Performance Share and the remaining 30% to the Attraction/Retention Shares.

On April 7, 2022, the Shareholders' Meeting approved, after acknowledging the changes in scenario, the obsolescence of the 2020-22 Long Term Incentive Plan and replaced the third cycle of this plan with the new 2022-2024 Stock Options Plan described previously.

2020-2022 Cycle

The final results of the performance indicators tied to this cycle will be submitted for approval by the TIM S.p.A. Board of Directors on March 15, 2023.

Valuation at December 31, 2022 of the gate to accessing maturity of the performance shares is below the value of the share at the Plan start-up: failure to satisfy the Gate condition determines the forfeiture of 37,201,463 performance shares at target and the maintenance - for the 102 recipients continuing their employment with TIM or Group subsidiaries at December 31, 2022 - of the right to receive a total of 10,879,774 shares (attraction/retention shares), considering the application of the ESG correction factor to the comprehensive payout in the amount of + 4%.

2021-2023 Cycle

At December 31, 2022, the cycle provides for the 144 recipients to be entitled to receive an award of 42,104,350 shares upon achievement of the target, subject to:

- the gate condition and application of the ESG correction for performance shares;
- application of the ESG correction and continuity of the contract of employment for attraction/retention shares.

TIM S.A. - Long Term Incentive Plan 2018-2020

On April 19, 2018, the General Meeting of Shareholders of TIM Participações S.A. (now incorporated into TIM S.A.) approved the long-term incentive plan for managers in key positions in the company. The plan aimed to reward participants with shares issued by the company, subject to specific temporal and performance conditions. The portion of shares linked to performance (70%) is granted 1/3 each year, if the performance target is achieved; the remaining portion of shares (30%) is granted 3 years after allocation (restricted share).

The vesting period is 3 years (with annual measurement) and the company does not have the legal obligation to repurchase or liquidate the shares in cash or in any other form.

The plan – in addition to transferring shares to beneficiaries – also includes the possibility of rewarding participants through the settlement of the amount corresponding in cash.

Year 2018

On April 20, 2018, plan beneficiaries were granted the right to receive a total of 849,932 shares, of which 594,954 performance shares restricted to performance conditions and with gradual vesting over 3 years and 254,978 restricted shares, with a vesting period of 3 years.

At December 31, 2022, 100% of the rights assigned were considered as vested.

Year 2019

On July 30, 2019, plan beneficiaries were granted the right to receive a total of 930,662 shares, of which 651,462 performance shares restricted to performance conditions and with gradual vesting over 3 years and 279,200 restricted shares, with a total vesting period of 3 years.

Three vesting periods ended on December 31, 2022:

- **In 2020,** in compliance with the results approved on July 29, 2020, 309,557 shares were transferred to beneficiaries, of which 209,349 relating to the original volume accrued, 83,672 granted according to the degree to which objectives had been achieved and 16,536 shares as a result of the dividends distributed during the period.
- **In 2021,** in compliance with the results approved on July 26, 2021, 309,222 shares were transferred to beneficiaries, of which 207,859 relating to the original volume accrued, 78,111 discounted according to the degree to which objectives had been achieved and 23,252 shares for dividends distributed during the period.
- **In 2022,** in compliance with the results approved on April 26, 2022, 618,495 shares were transferred to beneficiaries, of which 419,188 relating to the original volume accrued, 137,064 discounted according to the degree to which objectives had been achieved and 62,243 shares for dividends distributed during the period. For participants transferred to other Group companies, as per the Plan rules, payment in cash was considered of the amount corresponding to 11,574 shares (7,842 relating to the original volume accrued, 2,537 acknowledged according to the degree to which the objectives had been achieved and 1,195 due to dividends distributed during the period).

At December 31, 2022, of the original volume assigned of 930,662 shares, 86,424 had been canceled due to the beneficiaries having left the company and 1,237,274 shares had been transferred to beneficiaries (836,396 relating to the original volume accrued, 298,847 from performance achieved and 102,031 for payment of dividends in shares) and 11,574 shares had been valued and paid in cash (7,842 relating to the original volume accrued, 2,537 from performance achieved and 1,195 for payment of dividends in shares), thereby completing the 2019 concession.

Year 2020

On April 14, 2020, plan beneficiaries were granted the right to receive a total of 796,054 shares, of which 619,751 performance shares restricted to performance conditions and with gradual vesting over 3 years and 176,303 restricted shares, with a total vesting period of 3 years.

Two vesting periods ended on December 31, 2022:

- **In 2021,** in compliance with the results approved on May 5, 2021, 267,145 shares were transferred to beneficiaries, of which 206,578 relating to the original volume accrued, 51,634 granted according to the degree to which objectives had been achieved and 8,933 shares as a result of the dividends distributed during the period.
- **In 2022,** in compliance with the results approved on April 26, 2022, in July 337,937 shares were transferred to beneficiaries, of which 252,024 relating to the original volume accrued, 63,029 granted according to the degree to which objectives had been achieved and 22,884 shares as a result of the dividends distributed during the period. In addition, for participants transferred to other Group companies, as per the Plan rules, payment in cash was considered in June of the amount corresponding to 3,478 shares (2,593 relating to the original volume accrued, 649 acknowledged according to the degree to which the objectives had been achieved and 236 due to dividends distributed during the period).

At December 31, 2022, of the original volume assigned of 796,054 shares, 74,019 had been canceled due to the beneficiaries having left the company and 270,623 shares had been transferred to beneficiaries (209,171 related to the original volume vested, 52,283 recognized on the basis of performance achieved and 9,169 for effect of dividends distributed during the period). In July, 337,937 shares will be transferred to beneficiaries, of which 252,024 relating to the original volume accrued, 63,029 granted according to the degree to which the objectives had been achieved and 22,884 shares as a result of dividends distributed during the period, thereby leaving a balance of 264,481 shares that could be accrued at period end.

TIM S.A. - Long Term Incentive Plan 2021-2023

On March 30, 2021, the General Meeting of Shareholders of TIM S.A. approved the long-term incentive plan for managers in key positions in the company. The plan aims to reward participants with shares issued by the company, according to specific time (restricted shares) and performance (performance shares) conditions. The vesting period is 3 years and the company does not have the legal obligation to repurchase or liquidate the shares in cash or in any other form. The plan – in addition to transferring shares to beneficiaries – also includes the possibility of rewarding participants through the settlement of the amount corresponding in cash.

Year 2021

On May 5, 2021, plan beneficiaries were granted the right to receive a total of 3,431,610 shares, of which 3,173,142 performance shares restricted to performance conditions and with gradual vesting over 3 years and 258,468 restricted shares, with a vesting period of 3 years.

In 2021, the Special Grant was added to the traditional plan, a further extraordinary concession with the aim of encouraging the closure of the Oi purchase operation in Brazil as well as the success of the subsequent integration operations.

Of the total 3,431,610 shares granted, 1,151,285 relate to the traditional grant (with 892,817 performance shares and 258,468 restricted shares) and 2,280,325 refer to the Special Grant.

On December 31, 2022 the first vesting period ended:

- **In 2022,** in compliance with the results approved on April 26, 2022, in July 572,608 shares were transferred to beneficiaries, of which 463,608 relating to the original volume accrued, 87,605 granted according to the degree to which objectives had been achieved and 21,395 shares as a result of the dividends distributed during the period. In addition, for participants transferred to other Group companies, as per the Plan rules, payment in cash was considered in June of the amount corresponding to 3,486 shares (2,883 relating to the original volume accrued, 473 acknowledged according to the degree to which the objectives had been achieved and 130 due to dividends distributed during the period).
- ***Special Grant***: in compliance with the results approved on April 26, 2022, 601,936 shares were transferred to beneficiaries in July, of which 579,451 relating to the original volume accrued and 22,485 shares as a result of the dividends distributed during the period.

At December 31, 2022, of the total assigned of 3,431,610 shares, 361,515 had been canceled due to the beneficiaries having left the company and 3,486 shares had been transferred to beneficiaries through payment in cash, given the results of the first vesting period of the performance shares. In July, 1,174,544 shares will be transferred to beneficiaries, of which 1,043,059 relating to the original volume accrued, 87,605 granted according to the degree to which the objectives had been achieved and 43,880 shares as a result of dividends distributed during the period, thereby leaving a balance of 2,073,792 shares that could be accrued at period end.

TIM S.A. - Long Term Incentive Plan 2022-2024

On April 26, 2022, the General Meeting of Shareholders of TIM S.A. approved the long-term incentive plan for managers in key positions in the company. The plan aims to reward participants with shares issued by the company, according to specific time (restricted shares) and performance (performance shares) conditions. The vesting period is 3 years and the company does not have the legal obligation to repurchase or liquidate the shares in cash or in any other form. The plan – in addition to transferring shares to beneficiaries – also includes the possibility of rewarding participants through the settlement of the amount corresponding in cash.

Year 2022

On April 26, 2022, plan beneficiaries were granted the right to receive a total of 1,227,712 shares, of which 927,428 performance shares restricted to performance conditions and with gradual vesting over 3 years and 300,284 restricted shares, with a vesting period of 3 years.

At December 31, 2022, the first vesting period had not yet concluded and 44,565 shares had been canceled due to beneficiaries leaving the Company.

Calculation of fair value measurement of the granted options and rights

Parameters used to determine the fair value – TIM S.p.A.

Plans/Parameters	Exercise price (euros)	Nominal value (euros) (1)	Volatility (2)	Duration	Expected dividends (euros) (3)	Risk-free interest rate (4)
2020-2022 LTI Plan – First Cycle (2020-22)	—	0.35	n.a.	3 years	0.01	-0.714% at 3 years
2020-2022 LTI Plan – Second Cycle (2021-23)	—	0.42	n.a.	3 years	0.01	-0.720% at 3 years
SOP 2022-2024	0.424	—	34.6%	3 years	0.02	0.479% at 3 years

(1) Arithmetic mean of the official prices of the Shares recognized starting from the stock market trading day prior to that of assignment until the thirtieth previous ordinary calendar day (both included) on the Electronic Stock Exchange organized and managed by Borsa Italiana S.p.A., calculated using only the days to which the prices taken as the basis of calculation refer as the divisor, cut off at the second decimal.
(2) Based on the performance objectives of the plan, the TIM share volatility values were considered and, if necessary, also those of the securities of the major companies of the telecommunications sector ("peer basket").
(3) Dividends have been estimated on the basis of Bloomberg data.
(4) The risk-free interest rate refers to the rate of government bonds of the Federal Republic of Germany (market benchmark for transactions in euros) on the valuation date with a maturity consistent with the reporting period.

Parameters used for the assignments of TIM S.A.

Plans/Parameters	Share base price (reais)	Nominal value (reais)	Volatility	Duration	Expected dividends (reais)	Risk-free interest rate
Stock option plan 2014	13.42	n.a.	44.60%	6 years	-	10.66% per annum
Stock option plan 2015	8.45	n.a.	35.50%	6 years	-	16.10% per annum
Stock option plan 2016	8.10	n.a.	36.70%	6 years	-	11.73% per annum
2018 PS/RS Plan	n.a.	14.41	n.a.	3 years	n.a.	n.a.
2019 PS/RS Plan	n.a.	11.28	n.a.	3 years	n.a.	n.a.
2020 PS/RS Plan	n.a.	14.40	n.a.	3 years	n.a.	n.a.
2021 PS/RS Plan	n.a.	12.95	n.a.	3 years	n.a.	n.a.
2022 PS/RS Plan	n.a.	13.23	n.a.	3 years	n.a.	n.a.

The parameters are characteristic of a stock option plan, considering the use of fair value appropriate only for Stock Option Plans.

Effects on the income statement and statement of financial position

Equity compensation plans which call for payment in equity instruments are recorded at fair value (except for the 2018 Plan of TIM S.A.) which represents the cost of such instruments at the grant date and is recorded in the separate income statements under "Employee benefits expenses" over the period between the grant date and the vesting period with a contra-entry to the equity reserve ("Other equity instruments"). For the portion of the plans that provide for the payment of compensation in cash, the amount is recognized in liabilities as a contra-entry to "Employee benefits expenses". Equity compensation plans which call for payment in equity instruments did not have significant impacts either on the income statements or the statements of financial position or of cash flows of the TIM Group at December 31, 2022.

NOTE 42
SIGNIFICANT NON-RECURRING EVENTS AND TRANSACTIONS

The effect of 2022 non-recurring events and transactions on the equity, profit, net financial debt and cash flows of the TIM Group is set out below in accordance with Consob Communication DEM/6064293 of July 28, 2006. The non-recurring effects on Equity and Profit (loss) for the year are shown net of tax effects.

(million euros)		Equity	Profit (loss) for the year	Net financial debt carrying amount	Cash flows (*)
Carrying amount	**(a)**	**18,725**	**(2,654)**	**25,370**	**(3,309)**
Other income		23	23	6	(6)
Acquisition of goods and services - Expenses related to agreements and the development of non-recurring projects and other costs		(49)	(49)	49	(49)
Employee benefits expenses - Charges connected to corporate reorganization/restructuring and other costs		(563)	(563)	438	(438)
Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers for other provisions and charges		(77)	(77)	453	(453)
Other income (expenses) from investments		204	204	(1,317)	1,317
Other finance expenses		(11)	(11)	—	—
Tax realignment pursuant to Decree Law 104/2020 Art. 110		(1,964)	(1,964)		—
Total non-recurring effects	**(b)**	**(2,437)**	**(2,437)**	**(371)**	**371**
Income/(Expenses) relating to Discontinued operations	**(c)**	**—**	**—**	**—**	**—**
Figurative amount – financial statements	**(a–b-c)**	**21,162**	**(217)**	**25,741**	**(3,680)**

(*) Cash flows refer to the increase (decrease) in Cash and cash equivalents during the year.

Flows relating to "Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers and other provisions and charges” include the effects connected with use of the Contractual risk provisions for onerous contracts (IAS 37).

More specifically, in 2021, the net present value of the negative margin relating to contracts with certain counterparties for multimedia contents offers, including those between TIM and DAZN, was set aside.

Starting from the 2022 financial year, use of the aforementioned Provision over the contractual term makes it possible to offset the negative item of the margin (EBITDA) - referring to both the operating performance of the business and commitments in terms of prices that TIM is contractually obliged to pay to counterparties - thereby obtaining a null operating margin (organic) for the content business.

From a financial viewpoint, the negative margin covered by the Risks Provision has an equal impact on the Net Financial Position and cash flows. For the DAZN contract, TIM is contractually obliged to pay advance installments for each year (July 1-June 30, corresponding to each championship season).

In August 2022, TIM and DAZN reached a new agreement that - in amending the clauses previously in place - allows DAZN to distribute football rights to show the TIM Serie A championship matches through any third party, surpassing the previous system of TIM exclusivity. The new contractual structure has no impact on TIM customers, who continue to enjoy matches through TimVision, the most advantageous streaming platform with the best selection of content available on the market. At the same time, the objective is achieved of distributing rights over multiple platforms with a view to developing a more sustainable economic model that would also be less volatile.

During 2022, TIM S.p.A. also recorded a provision of 41 million euros for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

The Provision for contractual risks for onerous contracts at December 31, 2022 came to 247 million euros.

The impact of non-recurring items on the separate consolidated income statement line items is as follows:

(million euros)	2022	2021
Revenues:		
Revenue adjustments	—	(5)
Other income:		
Recovery of operating expenses	23	13
Acquisition of goods and services, Change in inventories:		
Professional expenses, consulting services and other costs	(56)	(49)
Employee benefits expenses:		
Charges connected to corporate reorganization/restructuring and other costs	(572)	(367)
Other operating expenses:		
Other expenses and provisions	(77)	(735)
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**(682)**	**(1,143)**
Goodwill impairment loss Domestic CGU	—	(4,120)
Impact on Operating profit (loss) (EBIT)	**(682)**	**(5,263)**
Other income (expenses) from investments:		
Net capital gain on corporate transactions	203	119
Finance income:		
Other finance income	—	1
Finance expenses:		
Other finance expenses	(11)	(1)
Impact on profit (loss) before tax from continuing operations	**(490)**	**(5,144)**
Tax realignment pursuant to Decree Law 104/2020 Art. 110	(1,964)	(3,785)
Income tax expense on non-recurring items	17	276
Impact on Profit (loss) for the year	**(2,437)**	**(8,653)**

Further details on the tax realignment pursuant to Decree Law 104/2020 are provided in the Note "Income tax expense (current and deferred)".

NOTE 43

POSITIONS OR TRANSACTIONS RESULTING FROM ATYPICAL AND/OR UNUSUAL OPERATIONS

In accordance with Consob Communication DEM/6064293 of July 28, 2006, a statement is made to the effect that in 2022 the TIM Group did not pursue any atypical and/or unusual transactions, as defined by that Communication.

NOTE 44
OTHER INFORMATION

a) Exchange rates used to translate the financial statements of foreign operations(*)

(local currency against 1 euro)		Year-end exchange rates (statements of financial position) 12/31/2022	12/31/2021	Average exchange rates for the year (income statements and statements of cash flows) 2022	2021
Europe					
BGN	Bulgarian Lev	**1.95580**	1.95580	**1.95580**	1.95580
CZK	Czech koruna	**24.11600**	24.85800	**24.56358**	25.64620
CHF	Swiss franc	**0.98470**	1.03310	**1.00475**	1.08136
TRY	Turkish lira	**19.96490**	15.23350	**17.40879**	10.49995
GBP	Pound sterling	**0.88693**	0.84028	**0.85268**	0.85970
RON	Romanian leu	**4.94950**	4.94900	**4.93133**	4.92118
RUB	Russian ruble	**77.95160**	85.30040	**73.30944**	87.18796
North America					
USD	U.S. dollar	**1.06660**	1.13260	**1.05335**	1.18285
Latin America					
VES (**)	Venezuelan bolivar – Soberano	**18.04390**	5.19230	**6.87673**	2,489,106.60692
BOB	Bolivian Bolíviano	**7.38750**	7.83860	**7.25140**	8.16146
PEN	Peruvian nuevo sol	**4.08040**	4.55660	**4.03697**	4.58967
ARS	Argentine peso	**189.69730**	116.53860	**137.13626**	112.44200
CLP	Chilean peso	**909.36000**	969.83000	**917.46919**	898.33180
COP	Colombian peso	**5,194.90000**	4,628.12000	**4,474.96042**	4,430.02835
BRL	Brazilian real	**5.56520**	6.32047	**5.43993**	6.35936
Other countries					
ILS	Israeli shekel	**3.75540**	3.51590	**3.53485**	3.82197
NGN	Nigerian Naira	**493.65090**	483.26890	**449.06170**	482.17941

(*) Source: Data processed by the European Central Bank, Reuters and major Central Banks.
(**) On October 1, 2021, a new monetary scale took effect, entailing the elimination of six zeros in relation to the previous one (1,000,000Bs = 1Bs).

b) Research and development

Costs for research and development activities are represented by external costs, dedicated employee benefits expenses and depreciation and amortization. Details are as follows:

(million euros)	2022	2021
Research and development costs expensed during the year	49	56
Capitalized development costs	906	1,016
Total research and development costs (expensed and capitalized)	**955**	**1,072**

The decrease recorded in the 2022 financial year is due to the stabilization of implementation activities connected with the new generation networks.

In the 2022 Separate Consolidated Income Statement, a total of 877 million euros of amortization expense was recorded for development costs, capitalized during the year and in prior years.

Research and development activities carried out by the TIM Group are described in detail in the Report on Operations (“Research and Development” section).

c) Leasing income

The TIM Group has entered into lease contracts on land and buildings for office and industrial use, mobile network infrastructure sites and network infrastructure; at December 31, 2022 and at December 31, 2021 the lease installments at nominal value still to be collected totaled:

(million euros)	12/31/2022	12/31/2021
Within next year	91	100
From 1 to 2 years after the end of the reporting period	39	36
From 2 to 3 years after the end of the reporting period	38	34
From 3 to 4 years after the end of the reporting period	34	34
From 4 to 5 years after the end of the reporting period	33	30
Beyond 5 years after the end of the reporting period	30	29
Total	**265**	**263**

d) Public funds

Italian Law 124/2017 requires that information on subsidies, contributions, paid assignments and economic benefits of any kind received from Italian public administrations be provided. In this regard, the following table shows the disbursements collected by the TIM Group in the years 2022 and 2021:

Distributing entity	Area of intervention	Received in 2022 (million euros)	Received in 2021 (million euros)
Fondimpresa/Fondirigenti	training	3	
Infratel	construction of Broadband and Ultrabroadband infrastructure	3	3
Ministry of Enterprises and Made in Italy (formerly the Ministry of Economic Development)	research and innovation	3	
ANPAL	training	—	54
Other		1	1
Total(*)		**10**	**58**

(*) 2022 - includes 0.7 million euros in returns

e) Directors' and statutory auditors' remuneration

Total remuneration due for 2022 to the directors and statutory auditors of TIM S.p.A. for the performance of these functions at the Parent and in other consolidated companies totaled 4.973 million euros for directors and 0.575 million euros for statutory auditors. In reference to the compensation to which the Directors are entitled, it should be noted that the amount was calculated by considering only compensation for corporate offices (in primis those under Article 2389, subsections 1 and 3 of the Italian Civil Code), thus excluding amounts relating to any employment relationship with the companies of the Group and any non-monetary fringe benefits; for a complete and detailed description of the compensation paid to the directors, reference should be made to the Compensation Report, available at the Company's headquarters and on the corporate website at the following address: gruppotim.it/assemblea.

f) Summary schedule of fees due to the audit firm and other firms in its network

The following schedule reports the fees due to EY S.p.A. and to the other firms in the EY network for the audit of the 2022 financial statements, and the fees referring to 2022 for other audit and review services, and for other services besides audit rendered to the companies of the TIM Group from EY S.p.A. and other firms in the EY network. The out-of-pocket expenses incurred for these services in 2022 are also shown.

(euros)	EY S.p.A.			Other entities of the EY network			
	TIM S.p.A.	Subsidiaries	TIM Group	TIM S.p.A.	Subsidiaries	TIM Group	Total EY network
Audit services	2,751,643	2,214,676	4,966,319	—	2,220,863	2,220,863	7,187,182
Audit services with the issue of certification	64,000	27,000	91,000	—	32,000	32,000	123,000
Certification of compliance of the Consolidated Non-Financial Statement	78,025	—	78,025	—	50,543	50,543	128,568
Other services	65,000	—	65,000	—	—	—	65,000
Total 2022 fees due for auditing and other services to the EY network	**2,958,668**	**2,241,676**	**5,200,344**	**—**	**2,303,406**	**2,303,406**	**7,503,750**
Out-of-pocket expenses	27,765	17,760	45,525	—	84,929	84,929	130,454
Total	**2,986,433**	**2,259,436**	**5,245,869**	**—**	**2,388,335**	**2,388,335**	**7,634,204**

NOTE 45
EVENTS SUBSEQUENT TO DECEMBER 31, 2022

TIM successfully placed an 850 million euro bond with 5-year maturity

Following approval by the Board of Directors on January 18, 2023 and after completion of bookbuilding, TIM S.p.A. has successfully placed an 850-million euro fixed-rate unsecured bond offered to institutional investors.

The proceeds from the new issue will be used to optimize and refinance the maturities of existing debt.

The details are shown below:

Issuer: TIM S.p.A.

Amount: 850 million euros

Settlement date: January 27, 2023

Maturity: February 15, 2028

Coupon: 6.875%

Issue price: 100.0%

Redemption price: 100.0%

The bond regulation sets out various commitments typical of these types of transactions for the issuer, including the limit of granting guarantees over its assets or implementing extraordinary corporate transactions, except where certain covenants are met.

The bond was listed on the Luxembourg stock exchange Euro MTF market. The ratings agencies Moody's, S&P and Fitch have attributed a rating to the bond respectively of B1, B+ and BB-.

TIM: non-binding offers for the purchase of Netco

On February 2, 2023, TIM reported having received from Kohlberg Kravis Roberts & Co. L.P. ("KKR") a non-binding offer ("KKR NBO") for the purchase of a stake in a newco being established, coinciding with the managerial and infrastructural scope of the fixed network, including the assets and business of FiberCop, as well as the holding in Sparkle (the "Netco"). The non-binding offer refers to a share to be defined, without prejudice to the fact that the purchase would result in the loss of vertical integration with respect to TIM. The TIM Board of Directors - which met on February 2, 2023 to start the process relating to the examination of the non-binding offer - decided to meet again on February 24, 2023 to resolve on the non-binding offer received from KKR for NetCo, also notifying its willingness to assess any alternatives as may become concrete in the meantime and continue talking to its stakeholders.

In connection with the press news regarding the non-binding offer on TIM's fixed infrastructure presented by KKR, on the request of Consob, the Company has clarified that unless otherwise agreed by the parties, the offer shall last for 4 weeks from the date on which it was submitted (February 1) and the Board of Directors would be meeting in the meantime to discuss the offer and make the relevant decisions.

As is standard practice for transactions of this type, the non-binding offer is only approximate and is subject to analyses, investigations and assessments to be carried out in the meantime, also discussing this with KKR. On the other hand, and as already reported, TIM is ready to consider alternative options.

Thereafter, on February 21, 2023, TIM reported having received a letter from KKR extending the deadline of this offer to March 24, 2023. More specifically, as indicated in the letter, the extension of the deadline is due to a request made by the government to have another four weeks within which to carry out a joint analysis of the publishing aspects of the transaction, concerning the powers that can be exercised by the government in the sector. KKR has, however, confirmed that is willing to continue a constructive dialog with TIM and proceed with due diligence.

On February 24, 2023, TIM S.p.A.'s Board of Directors examined the contents of the KKR NBO and the letter of extension received on February 21, 2023, also with the help of the analyses and investigations carried out by the management with the support of the advisors. In light of the information received, the Board has much appreciated the interest expressed in said NBO, despite considering that it does not fully reflect the value of the asset and TIM's expectations, also in terms of the sustainability of the company resulting from the operation considered therein. Therefore, in order to foster the alignment of the conditions of the operation proposed with respect to the strategic context relevant to TIM, the Board has resolved to make certain specific information available to KKR - on a non-exclusive basis - and to request the additional indications necessary to fully understand the topics and economics of the proposal. The above is with the aim of receiving an improved offer following such exchanges of information, by the deadline of March 31, 2023.

On March 5, 2023, TIM reported having received from a consortium consisting of CdP Equity S.p.A. (CDPE) and Macquarie Infrastructure and Real Assets (Europe) Limited, acting on behalf of a group of investment funds managed or assisted by the Macquarie Group (the "Consortium"), a non-binding offer (the "Consortium NBO") for the purchase of 100% of a company being established, substantially responsible for the managerial and infrastructural scope of the fixed network, including the assets and business of FiberCop and the investment in Sparkle (the "Netco").

The Board examined the contents of the Consortium NBO, also through analyses and investigations by the management and with the support of the advisors.

In light of the information received, the Board much appreciated the interest expressed in such Consortium NBO, despite considering that - just like the KKR NBO - it did not reflect the value of the asset and TIM's expectations. Therefore, in compliance with what had happened in the context of the KKR NBO, in order to foster the alignment of the conditions of the operation proposed with respect to the strategic context relevant to TIM, the Board has resolved to make certain specific information available to the Consortium - on a non-exclusive basis - and to request the additional indications necessary to fully understand the topics and economics of the Consortium NBO.

In addition, in order to allow both the Consortium and KKR to submit their best offers in a defined competitive process, it appointed the Chief Executive Officer, Pietro Labriola, to start a regulated process, sending both offerers, through their advisors, a process letter setting out:

- the terms that would give them access to additional, specific information, identical for both offerers;
- the ways by which each could submit a better non-binding offer by April 18, 2023.

The Board also resolved to assign the Related Parties Committee the task of carrying out due investigations in respect of both offers.

Agreement with the trade unions pursuant to Art. 4 of Law 92/2012

On March 21, 2023, TIM S.p.A. and the Trade Unions signed an agreement pursuant to Art. 4 of Italian Law no. 92/2012. The agreement involves an incentive to take redundancy for up to 2,000 people and is valid until November 30, 2023.

NOTE 46
LIST OF COMPANIES OF THE TIM GROUP

In accordance with Consob Communication DEM/6064293 dated July 28, 2006, the list of companies is provided herein.

The list is divided by type of investment, consolidation method and operating segment.

The following is indicated for each company: name, head office, country and share capital in the original currency. In addition to the percentage ownership of share capital, the percentage of voting rights in the ordinary shareholders' meeting, if different from the percentage holding of share capital, and which companies hold the investment.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
PARENT COMPANY						
TIM S.p.A.	MILAN	EUR	11,677,002,855			
SUBSIDIARIES CONSOLIDATED LINE-BY-LINE						
DOMESTIC BU						
CD FIBER S.r.l. (design, construction, maintenance and management of network infrastructure services and high-speed electronic communication systems)	ROME	EUR	50,000	100.0000		TIM S.p.A.
FIBERCOP S.p.A. (infrastructures, networks, passive cabled access services to the premises of end users to be offered to TLC operators throughout Italy)	MILAN	EUR	10,000,000	58.0000		TIM S.p.A.
GLOBAL SPACE TRE S.r.l. (in liquidation) (ICT services)	ROME	EUR	10,000	100.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
MED 1 SUBMARINE CABLES Ltd (construction and management of the submarine cable lev1)	RAMAT GAN (ISRAEL)	ILS	9,607,583	100.0000		TELECOM ITALIA SPARKLE S.p.A.
MINDICITY S.r.l. BENEFIT CORPORATION (design, development, implementation, installation, management and marketing of software, hardware, electronic IT systems and telecommunications systems)	CASALMAGGIORE (CREMONA)	EUR	10,000	70.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT
NOOVLE AI S.r.l. (ICT services)	ROVERETO (TRENTO)	EUR	10,000	100.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
NOOVLE INTERNATIONAL SAGL (ICT services)	PREGASSONA (SWITZERLAND)	CHF	20,000	100.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
NOOVLE MALTA Ltd (ICT services)	GZIRA (MALTA)	EUR	10,000	90.0000		NOOVLE INTERNATIONAL SAGL
NOOVLE S.p.A. SOCIETA' BENEFIT (design, implementation and management of infrastructures and data center services)	MILAN	EUR	1,000,000	100.0000		TIM S.p.A.
NOOVLE SICILIA S.c.a.r.l. (ICT services)	PALERMO	EUR	50,000	80.0000		NOOVLE S.p.A. SOCIETA' BENEFIT
NOOVLE SLOVAKIA S.R.O. (in liquidation) (ICT services)	BRATISLAVA (SLOVAKIA)	EUR	5,000	85.0000 15.0000		NOOVLE S.p.A. SOCIETA' BENEFIT TELECOM ITALIA FINANCE S.A.
OLIVETTI PAYMENT SOLUTIONS S.p.A. (management of equity investments, study and research activities, commercial, industrial, financial movable and real estate activities)	MILAN	EUR	50,000	100.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT
OLIVETTI S.p.A. SOCIETA' BENEFIT (production and sale of office equipment and information technology services)	IVREA (TURIN)	EUR	11,000,000	100.0000		TIM S.p.A.
PANAMA DIGITAL GATEWAY S.A. (telecommunications services and data center management)	PANAMA CITY (PANAMA)	USD	10,000	60.0000		TELECOM ITALIA SPARKLE S.p.A.
STAER SISTEMI S.r.l. (activities connected with the production and marketing of electronic systems and programs and activities connected with energy efficiency plants)	ROME	EUR	419,000	100.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT
TELECOM ITALIA SAN MARINO S.p.A. (San Marino telecommunications management)	BORGO MAGGIORE (SAN MARINO)	EUR	1,808,000	100.0000		TIM S.p.A.
TELECOM ITALIA SPARKLE S.p.A. (completion and management of telecommunications services for public and private use)	ROME	EUR	200,000,000	100.0000		TIM S.p.A.
TELECOM ITALIA TRUST TECHNOLOGIES S.r.l. (other operations related to non-classified IT services)	POMEZIA (ROME)	EUR	7,000,000	100.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
TELECOM ITALIA VENTURES S.r.l. (investment holding company)	MILAN	EUR	10,000	100.0000		TIM S.p.A.
TELECONTACT CENTER S.p.A. (telemarketing services)	NAPLES	EUR	3,000,000	100.0000		TIM S.p.A.
TELEFONIA MOBILE SAMMARINESE S.p.A. (development and management of mobile telecommunications plants and services)	BORGO MAGGIORE (SAN MARINO)	EUR	78,000	51.0000		TELECOM ITALIA SAN MARINO S.p.A.
TELENERGIA S.r.l. (import, export, purchase, sale and trade of electricity)	ROME	EUR	50,000	100.0000		TIM S.p.A.
TELSY S.p.A. (production, installation, maintenance, reconditioning and sale of terminals, radio telephones, telecommunications and electronic systems in general)	TURIN	EUR	5,390,000	100.0000		TIM S.p.A.
TI SPARKLE AMERICAS Inc. (managed bandwidth services)	MIAMI (UNITED STATES OF AMERICA)	USD	10,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ARGENTINA S.A. (managed bandwidth services)	BUENOS AIRES (ARGENTINA)	ARS	9,998,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE AUSTRIA GmbH (telecommunications services)	VIENNA (AUSTRIA)	EUR	2,735,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE BELGIUM S.P.R.L. – B.V.B.A. (telecommunications services)	BRUSSELS (BELGIUM)	EUR	2,200,000	99.9967 0.0033		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE UK Ltd
TI SPARKLE BRASIL PARTIÇIPAÇÕES Ltda (investment holding company)	RIO DE JANEIRO (BRAZIL)	BRL	71,563,866	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE AMERICAS Inc.
TI SPARKLE BRASIL TELECOMUNICAÇÕES Ltda (managed bandwidth services)	RIO DE JANEIRO (BRAZIL)	BRL	69,337,363	99.9999 0.0001		TI SPARKLE BRASIL PARTIÇIPAÇÕES Ltda TI SPARKLE AMERICAS Inc.
TI SPARKLE BULGARIA EOOD (telecommunications)	SOFIA (BULGARIA)	BGN	100,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE CHILE S.p.A. (managed bandwidth services)	SANTIAGO (CHILE)	CLP	5,852,430,960	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE COLOMBIA Ltda (managed bandwidth services)	BOGOTA' (COLOMBIA)	COP	12,635,774,000	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE AMERICAS Inc.
TI SPARKLE CZECH S.R.O. (telecommunications services)	PRAGUE (CZECH REPUBLIC)	CZK	6,720,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE FRANCE S.A.S. (installation and management of telecommunications services for fixed network and related activities)	PARIS (FRANCE)	EUR	18,295,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE GERMANY GmbH (telecommunications services)	FRANKFURT (GERMANY)	EUR	25,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE GREECE S.A. (telecommunications)	ATHENS (GREECE)	EUR	368,760	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ISRAEL Ltd (international wholesale telecommunication services)	RAMAT GAN (ISRAEL)	ILS	1,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE NETHERLANDS B.V. (telecommunications services)	AMSTERDAM (NETHERLANDS)	EUR	18,200	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE NORTH AMERICA, Inc. (telecommunications and promotional services)	NEW YORK (UNITED STATES OF AMERICA)	USD	15,550,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE PANAMA S.A. (managed bandwidth services)	PANAMA CITY (PANAMA)	USD	10,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE PERU' S.A. (managed bandwidth services)	LIMA (PERU)	PEN	57,101,788	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE AMERICAS Inc.
TI SPARKLE PUERTO RICO LLC (managed bandwidth services)	SAN JUAN (PUERTO RICO)	USD	3,050,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ROMANIA S.r.l. (telecommunications services)	BUCHAREST (ROMANIA)	RON	3,021,560	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE RUSSIA LLC (telecommunications services)	MOSCOW (RUSSIA)	RUB	8,520,000	99.0000 1.0000		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE UK Ltd
TI SPARKLE SINGAPORE Pte.Ltd (telecommunications services)	SINGAPORE	USD	5,121,120	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE NORTH AMERICA, Inc.
TI SPARKLE SLOVAKIA S.R.O. (telecommunications services)	BRATISLAVA (SLOVAKIA)	EUR	300,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE SPAIN TELECOMMUNICATIONS S.L. (telecommunications services)	MADRID (SPAIN)	EUR	1,687,124	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE ST. CROIX LLC (managed bandwidth services)	VIRGIN ISLANDS (UNITED STATES OF AMERICA)	USD	1,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
TI SPARKLE SWITZERLAND GmbH (telecommunications services)	ZURICH (SWITZERLAND)	CHF	2,000,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE TURKEY TELEKOMÜNIKASYON ANONIM SIRKETI (telecommunications services)	ISTANBUL (TURKEY)	TRY	65,000,000	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE UK Ltd (value-added and networking services)	LONDON (UNITED KINGDOM)	EUR	3,983,254	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TI SPARKLE VENEZUELA C.A. (managed bandwidth services)	CARACAS (VENEZUELA)	VES	10	100.0000		TELECOM ITALIA SPARKLE S.p.A.
TIESSE S.c.p.A. (in liquidation) (installation and assistance for electronic, IT, telematics and telecommunications equipment)	IVREA (TURIN)	EUR	103,292	61.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT
TIM MY BROKER S.r.l. (Insurance brokerage)	ROME	EUR	10,000	100.0000		TIM S.p.A.
TIM RETAIL S.r.l. (sale of fixed and mobile telecommunications products and services and all analog and digital broadcasting equipment)	MILAN	EUR	2,402,241	100.0000		TIM S.p.A.
TIM SERVIZI DIGITALI S.p.A. (development and ordinary and extraordinary maintenance of plants for the supply of telecommunications services to end customers)	ROME	EUR	50,000	100.0000		TIM S.p.A.
TIS LAGOS LIMITED (telecommunications services)	LAGOS (NIGERIA)	NGN	10,000,000	99.9999 0.0001		TELECOM ITALIA SPARKLE S.p.A. TI SPARKLE UK Ltd
BRAZIL BU						
COZANI RJ INFRAESTRUCTURA E REDE DE TELECOMUNICAÇÕES S.A. (telecommunications services)	RIO DE JANEIRO (BRAZIL)	BRL	2,993,889,243	100.0000		TIM S.A.
TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A. (investment holding company)	RIO DE JANEIRO (BRAZIL)	BRL	8,227,356,500	99.9999 0.0001		TELECOM ITALIA FINANCE S.A. TIM S.p.A.
TIM S.A. (telecommunications services)	RIO DE JANEIRO (BRAZIL)	BRL	13,477,890,508	66.5882 0.0005	66.5885	TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A. TIM S.A.
OTHER OPERATIONS						
OLIVETTI DEUTSCHLAND GmbH (sale of office equipment and supplies)	NURNBERG (GERMANY)	EUR	25,600,000	100.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT
OLIVETTI UK Ltd (sale of office equipment and supplies)	NORTHAMPTON (UNITED KINGDOM)	GBP	6,295,712	100.0000		OLIVETTI S.p.A. SOCIETA' BENEFIT
TELECOM ITALIA CAPITAL S.A. (financial company)	LUXEMBOURG	EUR	2,336,000	100.0000		TIM S.p.A.
TELECOM ITALIA FINANCE S.A. (financial company)	LUXEMBOURG	EUR	1,818,691,979	100.0000		TIM S.p.A.
TELECOM ITALIA LATAM PARTICIPAÇÕES E GESTÃO ADMINISTRATIVA Ltda (telecommunications and promotional services)	SAO PAULO (BRAZIL)	BRL	118,925,804	99.9997		TIM S.p.A.
TI AUDIT COMPLIANCE LATAM S.A. (in liquidation) (internal audit services)	RIO DE JANEIRO (BRAZIL)	BRL	1,500,000	69.9996 30.0004		TIM S.p.A. TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A.

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
ASSOCIATES AND JOINT VENTURES ACCOUNTED FOR USING THE EQUITY METHOD						
AREE URBANE S.r.l. (in liquidation) (real estate management)	MILAN	EUR	100,000	32.6200		TIM S.p.A.
CONSORZIO MEDSTAR (other services to support businesses)	ROME	EUR	10,000	50.0000		STAER SISTEMI S.r.l.
DAPHNE 3 S.p.A. (assumption, holding, management and disposal of equity investments in INWIT)	MILAN	EUR	100,000	10.0000		TIM S.p.A.
I-SYSTEMS S.A. (telecommunications systems)	RIO DE JANEIRO (BRAZIL)	BRL	1,794,287,995	49.0000		TIM S.A.
ITALTEL S.p.A. (telecommunications systems)	ROME	EUR	5,692,956	17.7200		TIM S.p.A.
NORDCOM S.p.A. (application service provider)	MILAN	EUR	5,000,000	42.0000		TIM S.p.A.
PEDIUS S.r.l. (implementation of specialized telecommunications applications, telecommunications services over telephone connections, VOIP services)	ROME	EUR	181	(*)		TELECOM ITALIA VENTURES S.r.l.
POLO STRATEGICO NAZIONALE S.p.A. (design, preparation, fitting out and making available of highly reliable national data network infrastructures for the public administration)	ROME	EUR	3,000,000	45.0000		TIM S.p.A.
QTI S.r.l. (development, production and sale of innovative products and services with high technological value)	FLORENCE	EUR	19,608	49.0000		TELSY S.p.A.
SMART STRUCTURES SOLUTIONS S.r.l. (engineering research activities)	ROME	EUR	15,000	36.0000		STAER SISTEMI S.r.l.
TIGLIO I S.r.l. (in liquidation) (real estate management)	MILAN	EUR	100,000	47.8020		TIM S.p.A.
TIMFIN S.p.A. (carrying out in regard to the public of the concession of loans in any form and, notably, of any type of finance disbursed in the form of a personal and consumer loan)	TURIN	EUR	40,000,000	49.0000		TIM S.p.A.
W.A.Y. S.r.l. (development and sale of geolocation products and systems for security and logistics)	TURIN	EUR	136,383	39.9999		OLIVETTI S.p.A. SOCIETA' BENEFIT
WEBIDOO S.p.A. (ICT services)	MILAN	EUR	242,357	(*)		TELECOM ITALIA VENTURES S.r.l.
WESCHOOL S.r.l. (research, development, marketing and patenting of all intellectual property related to technology, information technology and TLC)	MILAN	EUR	25,000	(*)		TELECOM ITALIA VENTURES S.r.l.

(*) Associate over which TIM S.p.A., directly or indirectly, exercises significant influence pursuant to IAS 28 (Investments in Associates and Joint Ventures).

Company name	Reg. office	Currency	Share Capital	% Ownership	% of voting rights	Participating companies
OTHER MAJOR INVESTMENTS						
IBAS ITALIAN BROADCASTING ADVANCE SOLUTIONS (consultancy services for the management of common promotional activities and connected public relations of the consortium members)	DESENZANO DEL GARDA (BRESCIA)	EUR	16,000	12.5000		STAER SISTEMI S.r.l.
DAHLIA TV S.p.A. (in liquidation) (pay-per-view services)	ROME	EUR	11,318,833	10.0786		TIM S.p.A.
FIN.PRIV. S.r.l. (financial company)	MILAN	EUR	20,000	14.2850		TIM S.p.A.
MIX S.r.l. (internet service provider)	MILAN	EUR	3,500,000	11.0937		TIM S.p.A.
WIMAN S.r.l. (in liquidation) (development, management and implementation of platforms for social-based Wi-Fi authentication)	MATTINATA (FOGGIA)	EUR	22,233	13.4935		TELECOM ITALIA VENTURES S.r.l.

CERTIFICATION OF THE CONSOLIDATED FINANCIAL STATEMENTS PURSUANT TO ARTICLE 81-TER OF THE CONSOB REGULATION 11971 DATED MAY 14, 1999, WITH AMENDMENTS AND ADDITIONS

1. We, the undersigned, Pietro Labriola, as Chief Executive Officer, and Adrian Calaza Noia, as Manager responsible for preparing TIM S.p.A. financial reports, certify, having also considered the provisions of Article 154-bis, subsections 3 and 4, of Italian Legislative Decree 58 of February 24, 1998:

   - the adequacy in relation to the characteristics of the company and
   - the effective application of the administrative and accounting procedures used in the preparation of the consolidated financial statements for the 2022 fiscal year.

2. TIM has adopted the Internal Control – Integrated Framework Model (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission, as its framework for the establishment and assessment of its internal control system, with particular reference to the internal controls for the preparation of the financial statements.

3. The undersigned also certify that:

   3.1. the Consolidated Financial Statements at December 31, 2022:

   a) have been prepared in compliance with the international accounting standards adopted by the European Union pursuant to Regulation (EC) 1606/2002 of the European Parliament and Council of July 19, 2002 (International Financial Reporting Standards – IFRS), as well as the legislative and regulatory provisions in force in Italy, including, in particular, the measures enacted for the implementation of Article 9 of Italian Legislative Decree 38 of February 28, 2005;

   b) agree with the results of the accounting records and entries;

   c) provide a true and fair view of the financial condition, the results of operations and the cash flows of the Company and its consolidated subsidiaries;

   3.2. The report on operations contains a reliable operating and financial review of the Company and of the Group, as well as a description of their exposure to the main risks and uncertainties. The Report on Operations also contains a reliable analysis of information concerning significant related-party transactions.

March 15, 2023

Chief Executive Officer	**Manager Responsible for Preparing the Corporate Financial Reports**
/ signed /	/ signed /
Pietro Labriola	Adrian Calaza Noia

INDEPENDENT AUDITORS' REPORT

EY S.p.A.
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Independent auditor's report pursuant to article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014
(Translation from the original Italian text)

To the Shareholders of
TIM S.p.A.

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of TIM Group (the Group), which comprise the consolidated statement of financial position as at December 31, 2022, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as at December 31, 2022, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of TIM S.p.A. in accordance with the regulations and standards on ethics and independence applicable to audits of financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We identified the following key audit matters:

Key Audit Matter	Audit Response
Impairment test of goodwill – Domestic	
As of December 31, 2022, goodwill amounts to Euro 19,111 million and refers for Euro 18,134 million to the Domestic cash generating unit ("CGU") and for Euro 977 million to the Brazil CGU. The processes and methodologies used by the Group to evaluate and determine the recoverable amount of each CGU, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the forecast of future cash flows and to the estimate of the long-term growth and discount rates applied to the future cash flow forecasts. Considering the level of judgment required and the complexity of the assumptions applied in estimating the recoverable amount of goodwill, we considered this area a key audit matter. Disclosures related to the assessment of goodwill are reported in note 5 "Goodwill" and in note 2 "Accounting policies" in the paragraphs “Intangible assets - Goodwill”," Impairment of intangible, tangible and rights of use assets - Goodwill" and "Use of estimates".	Our audit procedures in response to the key audit matter included, among others: ► the assessment of the processes implemented by the Group with reference to the criteria and methodology of the impairment test; ► the validation of the CGUs perimeter and the test of the allocation of the carrying value of the Group’s assets to the Domestic CGU; ► the assessment of the reasonableness of the future cash flows forecasts, including comparisons with sector data and forecasts, utilized in the fair value determination; ► the assessment of the consistency of the future cash flows forecasts of the CGU with the Group business plan; ► the assessment of forecasts in light of their historical accuracy; ► the assessment of the reasonableness of long-term growth rates and discount rates. The procedures referred to in the previous points also concerned the analysis of the assessments performed by the independent experts appointed by the Group. In performing our analysis, we involved our experts in valuation techniques, who performed an independent recalculation and carried out sensitivity analyses on the key assumptions in order to determine which changes in the assumptions could materially affect the recoverable amount. Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the valuation of goodwill.

Building a better working world

Revenue recognition	
TIM Group's revenues amounted to Euro 15,788 million as of December 31, 2022, and refer almost entirely to the telecommunications services rendered to retail and wholesale customers (other telecommunications operators). Procedures over the accounting of revenues required significant focus in the context of our audit procedures due to (i) a highly complex accounting process due to the number of commercial offers, the number of underlying application systems and the related reconciliation processes, (ii) the presence of certain manual phases in the revenue recognition process, in particular for services provided to large customers and (iii) the complexity in estimating commitments connected to certain contracts. The Group provides the relative disclosures in Note 26 "Revenues" of the consolidated financial statements.	Our audit procedures in response to the key audit matter included, among others: ► an understanding of the processes underlying the revenue recognition; ► the understanding and verification of the design and operating effectiveness of the relevant controls over the revenue recognition process; ► the analysis of the application systems supporting the revenue recognition process; ► the assessment that the accounting policy adopted for the main commercial offers is consistent with the provisions of the reference accounting standard; ► the analysis, on a sample basis, of some significant transactions relating to invoices issued and invoices to be issued, in order to verify that the contractual data and the evidence supporting the actual service rendered and / or goods transferred were consistent with the accounting policy adopted; ► the analysis of the valuation of certain contracts identified as onerous contracts; ► the analysis of the reconciliation of the management accounts with the accounting records in connection with the main balance sheet items related to customer relations; ► the analysis of the manual journal entries. We also required external confirmations for a sample of customers and transactions. Lastly, we reviewed the adequacy of the disclosure provided in the notes to the consolidated financial statements with regards to the revenue recognition process.
Regulatory disputes	
As of December 31, 2022, TIM Group is involved in several regulatory disputes in progress, many of which are characterized by	Our audit procedures in response to the key audit matter included, among others: ► an understanding of the process put in place

significant counterparty requests.

The main disputes concern (i) the 28-day billing proceeding, in which AGCOM ordered TIM to reimburse customers for unused service days, (ii) the I820 proceeding, started by AGCM against TIM and other telco operators, to ascertain a possible conduct restricting market competition, (iii) the I857 proceeding for a possible agreement restricting market competition in connection with the partnership with DAZN and (iv) the A514, and the related “follow-on” proposed by some other OLOs, procedure in which the AGCM charged TIM with conduct aimed at hindering the entry on the market of a new operator.

The assessment of the disputes was carried out by Management, as of 31 December 2022, based on the opinion of the external lawyers, as well as considering the latest information available.

The estimation of the risks connected to the disputes in which the Group is involved, requires a high degree of judgment by the management and, also considering the complexity of the regulatory framework, we considered this area a key audit matter.

Disclosures related to the assessment of the risks relating to the regulatory disputes in which the Group is involved is reported in note 25 "Disputes and pending legal actions, other information, commitments and guarantees".

by Management for assessing disputes, accompanied by test of the effectiveness of the internal controls relevant for this process;

- inquiries with Management regarding the main assumptions made in connection with disputes;
- the analysis of the legal opinions prepared by external consultants, based on which Management has based its assessments;
- the analysis of the responses received from external lawyers following our external confirmations procedures.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements.

Fiscal disputes in Brazil

As of December 31, 2022, the TIM Group is involved in several disputes with the Brazilian tax authorities.

The maximum potential liability associated with these disputes, as at December 31, 2022, amounts to Euro 3,270. With reference to this potential liability, the Group recognized a provision of Euro 85 million with regards to the risks deemed probable.

The assessment of the risk related to the tax disputes in Brazil in which the Group is involved, requires a high degree of judgment by the

Our audit procedures in response to the key audit matter included, among others:

- an understanding of the process put in place by Management for assessing disputes, accompanied by test of the effectiveness of the controls relevant for this process;
- inquiries with Management regarding the main assumptions made in connection with disputes;
- the analysis of the legal opinions prepared by external consultants, based on which

Management and, also considering the significance of the amounts involved, we considered it to be a key audit matter.

Disclosures related to the assessment of the risks relating to the fiscal disputes in which the Group is involved is reported in note 25 "Disputes and pending legal actions, other information, commitments and guarantees".

Management has based its assessments;

- the analysis of the responses to our external confirmations procedures received from external lawyers, also with the involvement of our experts in tax disputes.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the disputes in which the Group is involved, based on their compliance with the international accounting standards and their consistency with the results of our audit procedures.

Recoverability of deferred tax assets

As of December 31, 2022, deferred tax assets amount, net of impairment, to Euro 769 million in the consolidated financial statements.

Deferred tax assets refer to the temporary deductible differences between the book and fiscal values of assets and liabilities in the financial statements.

The recoverability of the carrying amount of the deferred tax assets is subject to management’s evaluation and is based on the estimations of the future taxable income expected in the years in which they will be reversed.

The processes and methodologies used to evaluate and determine the recoverable amount of these assets, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the consistency of the forecasts of future taxable income expected by the Group with those included in the business plan.

Considering the level of judgment required and the complexity of the assumptions applied in estimating future taxable amount used to determine the recoverability of the deferred tax assets, we considered this area a key audit matter.

Disclosures related to the assessment of recoverability of deferred tax assets are reported in note 2 "Accounting policies" in the

Our audit procedures in response to the key audit matter included, among others:

- the assessment of the reasonableness of the assumptions underlying the estimation of future taxable income and the reconciliation with the figures included in the Group's business plan, taking into account the regulatory changes that took place during 2022;
- the assessment of the reasonableness of the accuracy of the forecasts compared with the prior periods;
- the assessment of the Management calculations.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements with regards to the recoverability of deferred tax assets.

paragraphs “Income tax expense (current and deferred)" and "Use of estimates" and in note 12 “Income tax expense (current and deferred)".

Acquisition of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A.

On April 20, 2022, the Group acquired 100% of the share capital of Cozani RJ Infraestrutura e Rede de Telecomunicações S.A., the company to which part of the assets, rights and obligations of Oi Móvel S.A. have been contributed, for a total consideration of Euro 1,373 million.

The acquisition was accounted for as a business combination pursuant to IFRS 3. The Group has estimated the fair value of the assets acquired and the liabilities assumed, as well as the value of the contingent consideration, using valuation models and assumptions based on future performance (including revenue growth rates and churn rate).

Considering the level of judgment required and the complexity of the assumptions used in estimating the fair value of the assets acquired and liabilities assumed, mainly with reference to the customer relationship, we considered this area a key audit matter.

Disclosures related to the transaction are reported in note 4 "Business combinations".

Our audit procedures in response to the key audit matter included, among others:

- test of the design and effectiveness of the controls put in place to mitigate the risks associated with the valuation process, with particular reference to controls that concern the identification of assets acquired as well as the determination of the inputs of the valuation model;
- the assessment of the reasonableness of the inputs used in the model, as well as the most significant assumptions used by the Company Management in the preparation of the perspective financial information;
- the analysis of the completeness and accuracy of the data used in the model, comparing them with market data and trends.

In performing our analysis, we involved our experts in valuation techniques, who performed an independent recalculation and carried out sensitivity analyses on the key assumptions in order to determine which changes in the assumptions could materially affect the estimation of the fair value of the assets acquired and the liabilities assumed.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the consolidated financial statements.

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

The Directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The Directors are responsible for assessing the Group's ability to continue as a going concern and, when preparing the consolidated financial statements, for the appropriateness of the going concern assumption, and for appropriate disclosure thereof. The Directors prepare the consolidated financial statements on a going concern basis unless they either intend to liquidate the Parent Company TIM S.p.A. or to cease operations, or have no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- we have obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Group's internal control;
- we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
- we have concluded on the appropriateness of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to consider this matter in forming our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- we have evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- we have obtained sufficient appropriate audit evidence regarding the financial information of

the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated with them all matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken to eliminate relevant risks or the safeguard measures applied.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor's report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholders of TIM S.p.A., in the general meeting held on March 29, 2019, engaged us to perform the audits of the separate and consolidated financial statements for each of the years ending December 31, 2019 to December 31, 2027.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Group in conducting the audit.

We confirm that the opinion on the consolidated financial statements included in this report is consistent with the content of the additional report to the audit committee (Collegio Sindacale) in their capacity as audit committee, prepared pursuant to article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion on the compliance with Delegated Regulation (EU) 2019/815

The Directors of TIM S.p.A. are responsible for applying the provisions of the European Commission Delegated Regulations (EU) 2019/815 for the regulatory technical standards on the specification of a single electronic reporting format (ESEF – European Single Electronic Format) (the "Delegated Regulation") to the consolidated financial statements, to be included in the annual financial report.

We have performed the procedures under the auditing standard SA Italia n. 700B, in order to express an opinion on the compliance of the consolidated financial statements with the provisions of the Delegated Regulation.

In our opinion, the consolidated financial statements have been prepared in the XHTML and have been marked-up, in all material aspects format in compliance with the provisions of the Delegated Regulation.

Due to certain technical limitations, some information included in the illustrative notes to the consolidated financial statements when extracted from the XHTML format to an XBRL instance may not be reproduced in an identical manner with respect to the corresponding information presented in the consolidated financial statements in XHTML format.

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of TIM S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and Ownership Structure of TIM Group as at December 31, 2022, including their consistency with the related consolidated financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and Ownership Structure as provided for by article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998, with the consolidated financial statements of TIM Group] as at December 31 ,2022 and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operations and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the consolidated financial statements of TIM Group as at December 31, 2022, and comply with the applicable laws and regulations.

With reference to the statement required by art. 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of TIM S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Turin, March 30, 2023

EY S.p.A.
Signed by: Ettore Abate, Auditor

As disclosed by the Directors, the accompanying consolidated financial statements of TIM S.p.A. constitute a non-official version which is not compliant with the provisions of the Commission Delegated Regulation (EU) 2019/815. This independent auditor’s report has been translated into the English language solely for the convenience of international readers. Accordingly, only the original text in Italian language is authoritative.

LA FORZA DELLE CONNESSIONI

TIM S.p.A. Separate Financial Statements

CONTENTS

TIM S.P.A. SEPARATE FINANCIAL STATEMENTS

STATEMENTS OF FINANCIAL POSITION

Assets

(euros)	notes	12/31/2022	*of which with related parties*	12/31/2021	*of which with related parties*
Non-current assets					
Intangible assets					
Goodwill	3)	12,063,469,183		12,960,511,068	
Intangible assets with a finite useful life	4)	5,023,361,711		5,278,281,754	
		17,086,830,894		**18,238,792,822**	
Tangible assets	5)				
Property, plant and equipment owned		**6,837,233,046**		**7,223,464,580**	
Rights of use assets	2) 6)	**3,188,196,838**	*169,257,000*	**3,320,501,325**	*487,904,000*
Other non-current assets					
Investments	7)	**11,020,493,862**		**11,053,931,924**	
Other investments	7)				
Non-current financial receivables arising from lease contracts	8)	8,023,910	*921,000*	10,912,698	1,135,000
Other non-current financial assets	8)	3,494,016,653	*2,379,071,000*	4,437,606,952	*2,669,461,000*
Miscellaneous receivables and other non-current assets	9)	1,877,954,278	*305,752,000*	1,973,923,028	*247,500,000*
Deferred tax assets	10)	461,377,116		3,363,514,150	
		16,861,865,819		**20,839,888,752**	
Total Non-current assets	**(a)**	**43,974,126,597**		**49,622,647,479**	
Current assets					
Inventories	11)	193,025,376		165,171,260	
Trade and miscellaneous receivables and other current assets	12)	4,292,564,748	*1,087,813,000*	3,930,749,146	*774,180,000*
Current income tax receivables	10)	33,883,108		42,862,793	
Investments					
Current financial assets					
Current financial receivables arising from lease contracts		*45,212,240*	*3,842,000*	*39,660,799*	*3,963,000*
Securities other than investments, other financial receivables and other current financial assets		*467,090,594*	*373,286,000*	*115,703,711*	*13,438,000*
Cash and cash equivalents		1,375,041,398	*217,832,000*	**3,558,280,626**	*26,437,000*
	8)	**1,887,344,232**		**3,713,645,136**	
Total Current assets	**(b)**	**6,406,817,464**		**7,852,428,335**	
Total Assets	**(a+b)**	**50,380,944,061**		**57,475,075,814**	

Equity and Liabilities

(euros)	notes	12/31/2022	of which with related parties	12/31/2021	of which with related parties
Equity	13)				
Share capital issued		11,677,002,855		11,677,002,855	
less: Treasury shares		(63,390,972)		(63,390,972)	
Share capital		**11,613,611,883**		**11,613,611,883**	
Additional paid-in capital		**2,133,374,023**		**2,133,374,023**	
Legal reserve		**2,335,400,571**		**2,335,400,571**	
Other reserves					
Reserve for remeasurements of employee defined benefit plans (IAS 19)		(65,428,740)		(117,166,484)	
Other		1,312,303,219		1,555,920,360	
Total Other reserves		**1,246,874,479**		**1,438,753,876**	
Retained earnings (accumulated losses), including profit (loss) for the year		**(3,076,991,836)**		**(956,760,232)**	
Total Equity	**(c)**	**14,252,269,120**		**16,564,380,121**	
Non-current liabilities					
Non-current financial liabilities for financing contracts and others	14)	18,778,886,217	*4,375,103,000*	21,876,291,105	*5,537,738,000*
Non-current financial liabilities for lease contracts	14)	2,600,472,610	*25,278,000*	2,743,426,675	*297,686,000*
Employee benefits	19)	630,496,530		641,396,452	
Deferred tax liabilities	10)				
Provisions	20)	517,495,742		632,876,811	
Miscellaneous payables and other non-current liabilities	21)	874,686,710	*35,291,000*	1,195,633,722	*34,631,000*
Total Non-current liabilities	**(d)**	**23,402,037,809**		**27,089,624,765**	
Current liabilities					
Current financial liabilities for financing contracts and others	14)	5,690,041,905	*1,925,774,000*	5,045,176,012	*480,595,000*
Current financial liabilities for lease contracts	14)	458,964,216	*28,276,000*	433,804,853	*79,065,000*
Trade and miscellaneous payables and other current liabilities	22)	6,577,631,011	*872,636,000*	8,111,207,332	*922,799,000*
Income tax payables	10)	—		230,882,731	
Total Current Liabilities	**(e)**	**12,726,637,132**		**13,821,070,928**	
Total Liabilities	**(f=d+e)**	**36,128,674,941**		**40,910,695,693**	
Total Equity and Liabilities	**(c+f)**	**50,380,944,061**		**57,475,075,814**	

SEPARATE INCOME STATEMENTS

(euros)	notes	Year 2022	of which with related parties	Year 2021	of which with related parties
Revenues	24)	**12,097,644,713**	*1,562,691,000*	**12,396,902,360**	*1,122,021,000*
Other income	25)	244,920,968	*67,303,000*	321,723,135	*89,687,000*
Total operating revenues and other income		**12,342,565,681**		**12,718,625,495**	
Acquisition of goods and services	26)	(7,601,869,032)	*(2,793,533,000)*	(6,758,756,861)	*(2,424,697,000)*
Employee benefits expenses	27)	(2,578,444,051)	*(86,557,000)*	(2,452,964,944)	*(96,215,000)*
Other operating expenses	28)	(419,894,307)	*(8,355,000)*	(1,178,698,048)	*(3,654,000)*
Change in inventories	29)	27,854,116		21,315,460	
Internally generated assets	30)	315,459,353		287,648,513	
Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)		**2,085,671,760**		**2,637,169,615**	
of which: impact of non-recurring items	38)	*(619,685,000)*		*(1,133,505,000)*	
Depreciation and amortization	31)	(2,758,998,171)	*(43,722,000)*	(2,995,759,078)	*(75,895,000)*
Gains (losses) on disposals of non-current assets	32)	24,181,484	*(223,000)*	(43,307,726)	*(39,953,000)*
Impairment reversals (losses) on non-current assets	33)	(160,520)		(4,120,130,346)	
Operating profit (loss) (EBIT)		**(649,305,447)**		**(4,522,027,535)**	
of which: impact of non-recurring items	38)	*(619,685,000)*		*(5,253,505,000)*	
Income/(expenses) from investments	34)	408,459,952	*111,322,000*	834,404,341	*835,675,000*
Finance income	35)	1,414,652,393	*842,831,000*	1,075,737,527	*373,300,000*
Finance expenses	35)	(2,408,011,869)	*(621,766,000)*	(1,983,730,932)	*(672,113,000)*
Profit (loss) before tax		**(1,234,204,971)**		**(4,595,616,599)**	
of which: impact of non-recurring items	38)	*(317,387,000)*		*(5,246,014,000)*	
Income tax expense	10)	(1,842,786,865)		(3,718,391,399)	
Profit (loss) for the year		**(3,076,991,836)**		**(8,314,007,998)**	
of which: impact of non-recurring items	38)	*(2,281,314,000)*		*(8,761,083,000)*	

STATEMENTS OF COMPREHENSIVE INCOME

Note 13

(euros)		Year 2022	Year 2021
Profit (loss) for the year	**(a)**	**(3,076,991,836)**	**(8,314,007,998)**
Other components of the Statements of Comprehensive Income			
Other components that will not be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(1,980,773)	7,131,708
Income tax effect		23,235	(71,306)
	(b)	**(1,957,538)**	**7,060,402**
Remeasurements of employee defined benefit plans (IAS19):			
Actuarial gains (losses)		68,075,979	(14,190,447)
Income tax effect		(16,338,235)	3,405,707
	(c)	**51,737,744**	**(10,784,740)**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Income tax effect		—	—
	(d)	**—**	**—**
Total other components that will not be reclassified subsequently to Separate Income Statements	**(e=b+c+d)**	**49,780,206**	**(3,724,338)**
Other components that will be reclassified subsequently to Separate Income Statements			
Financial assets measured at fair value through other comprehensive income:			
Profit (loss) from fair value adjustments		(17,440,366)	(5,203,379)
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		4,185,688	1,248,811
	(f)	**(13,254,678)**	**(3,954,568)**
Hedging instruments:			
Profit (loss) from fair value adjustments		1,019,166,673	538,103,786
Loss (profit) transferred to the Separate Income Statements		(68,735,605)	(185,027,966)
Income tax effect		(228,103,456)	(84,738,197)
	(g)	**722,327,612**	**268,337,623**
Share of other comprehensive income (loss) of associates and joint ventures accounted for using the equity method:			
Profit (loss)		—	—
Loss (profit) transferred to the Separate Income Statements		—	—
Income tax effect		—	—
	(h)	**—**	**—**
Total other components that will be reclassified subsequently to Separate Income Statements	**(i= f+g+h)**	**709,072,934**	**264,383,055**
Total other components of the Statements of Comprehensive Income	**(k= e+i)**	**758,853,140**	**260,658,717**
Total comprehensive income (loss) for the year	**(a+k)**	**(2,318,138,696)**	**(8,053,349,281)**

STATEMENTS OF CHANGES IN EQUITY

Changes in Equity from January 1 to December 31, 2021

(euros)	Share capital	Additional paid-in capital	Reserve for financial assets measured through fair value adjustment through other comprehensive income	Reserve for hedging instruments	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total Equity**
Balance at December 31, 2020	**11,657,768,478**	**2,133,374,023**	**10,134,335**	**(1,213,586,253)**	**(106,381,744)**	**12,526,766,918**	**25,008,075,757**
Changes in equity during the year:							
Dividends approved						(318,774,296)	**(318,774,296)**
Total comprehensive income (loss) for the year			3,105,834	268,337,623	(10,784,740)	(8,314,007,998)	**(8,053,349,281)**
Treasury shares	(44,156,595)					12,832,771	**(31,323,824)**
Other changes						(40,248,235)	**(40,248,235)**
Balance at December 31, 2021	11,613,611,883	2,133,374,023	13,240,169	(945,248,630)	(117,166,484)	3,866,569,160	**16,564,380,121**

Changes in Equity from January 1 to December 31, 2022 – Note 13

(euros)	Share capital	Additional paid-in capital	Reserve for financial assets measured at fair value through other comprehensive income	Reserve for hedging instruments	Reserve for remeasurements of employee defined benefit plans (IAS 19)	Other reserves and retained earnings (accumulated losses), including profit (loss) for the year	**Total Equity**
Balance at December 31, 2021	11,613,611,883	2,133,374,023	13,240,169	(945,248,630)	(117,166,484)	3,866,569,160	**16,564,380,121**
Changes in equity during the year:							
Total comprehensive income (loss) for the year			(15,212,216)	722,327,612	51,737,744	(3,076,991,836)	**(2,318,138,696)**
Equity instruments						5,983,768	**5,983,768**
Other changes						43,927	**43,927**
Balance at December 31, 2022	**11,613,611,883**	**2,133,374,023**	**(1,972,047)**	**(222,921,018)**	**(65,428,740)**	**795,605,019**	**14,252,269,120**

STATEMENTS OF CASH FLOWS

(euros)	notes	Year 2022	Year 2021
Cash flows from operating activities:			
Profit (loss) for the year		(3,076,991,836)	(8,314,007,998)
Adjustments for:			
Depreciation and amortization	31)	2,758,998,171	2,995,759,078
Impairment losses (reversals) on non-current assets (including investments)		20,560,000	4,125,301,000
Net change in deferred tax assets and liabilities		2,661,933,000	3,843,396,000
Losses (gains) realized on disposals of non-current assets (including investments)		(337,310,000)	34,719,000
Change in employee benefits		144,148,000	(83,211,000)
Change in inventories		(27,854,000)	(21,315,000)
Change in trade receivables		(204,414,000)	(261,717,000)
Change in trade payables		443,995,000	518,520,000
Net change in income tax receivables/payables		(452,340,000)	(235,823,000)
Net change in miscellaneous receivables/payables and other assets/liabilities		(588,085,890)	(225,818,351)
Cash flows from (used in) operating activities	**(a)**	**1,342,638,445**	**2,375,802,729**
Cash flows from investing activities:			
Purchases of intangible, tangible and rights of use assets on a cash basis		(3,582,906,000)	(2,200,937,000)
Contributions for plants received		2,961,000	3,121,000
Change in cash arising from corporate actions	7)	253,000	4,164,000
Acquisitions/disposals of other investments		(45,608,000)	(130,453,000)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		139,953,000	1,152,516,000
Proceeds received from the sale of investments in subsidiaries		—	—
Proceeds from sale/repayments of intangible, tangible, rights of use assets and other non-current assets		1,283,709,000	53,304,000
Cash flows from (used in) investing activities	**(b)**	**(2,201,638,000)**	**(1,118,285,000)**
Cash flows from financing activities			
Change in current financial liabilities and other		47,828,000	(182,389,000)
Proceeds from non-current financial liabilities (including current portion)		2,000,092,000	2,100,000,000
Repayments of non-current financial liabilities (including current portion)		(4,192,832,000)	(2,600,481,000)
Changes in hedging and non-hedging derivatives		(176,000)	103,460,000
Share capital proceeds/reimbursements		—	—
Dividends paid (*)		(849,000)	(317,662,000)
Changes in ownership interests in consolidated subsidiaries		—	1,758,634,000
Cash flows from (used in) financing activities	**(c)**	**(2,145,937,000)**	**861,562,000**
Aggregate cash flows	**(d=a+b+c**	**(3,004,936,555)**	**2,119,079,729**
Net cash and cash equivalents at beginning of the year	**(e)**	**3,363,957,092**	**1,244,877,363**
Net cash and cash equivalents at end of the year	**(f=d+e)**	**359,020,537**	**3,363,957,092**
(*) of which from related parties		—	(52,762,635)

Purchase of intangible, tangible and rights of use assets

(euros)	notes	Year 2022	Year 2021
Purchase of intangible assets	4)	(776,428,000)	(1,054,406,000)
Purchase of tangible assets	5)	(899,143,000)	(1,167,415,000)
Purchase of rights of use assets	6)	(390,076,000)	(324,830,000)
Total purchase of intangible, tangible and rights of use assets on an accrual basis (*)		**(2,065,647,000)**	**(2,546,651,000)**
Change in payables arising from purchase of intangible, tangible and rights of use assets		(1,517,259,000)	345,714,000
Total purchase of intangible, tangible and rights of use assets on a cash basis		**(3,582,906,000)**	**(2,200,937,000)**
(*) of which from related parties		63,202,000	100,301,000

Additional Cash Flow information

(euros)	Year 2022	Year 2021
Income taxes (paid) received	233,383,000	(206,070,000)
Interest expense paid	(1,383,612,000)	(1,296,135,000)
Interest income received	(556,212,000)	503,793,000
Dividends received	113,293,000	780,219,000

Analysis of Net Cash and Cash Equivalents

(euros)	Year 2022	Year 2021
Net cash and cash equivalents at beginning of the year:		
Cash and cash equivalents	3,558,280,626	1,765,441,712
Bank overdrafts repayable on demand	(194,323,534)	(520,564,349)
	3,363,957,092	**1,244,877,363**
Net cash and cash equivalents at end of the year:		
Cash and cash equivalents	1,375,042,603	3,558,280,626
Bank overdrafts repayable on demand	(1,016,022,066)	(194,323,534)
	359,020,537	**3,363,957,092**

The additional disclosures required by IAS 7 are provided in the Note “Net financial debt” to these Separate Financial Statements.

NOTE 1
FORM, CONTENT AND OTHER GENERAL INFORMATION

Form and content

Telecom Italia, TIM in brief, is a joint-stock company (S.p.A.) organized under the laws of the Republic of Italy.
The registered offices of TIM S.p.A. are located in Milan, Italy, at Via Gaetano Negri 1.
The duration of TIM S.p.A., as stated in the company's bylaws, extends until December 31, 2100.
TIM S.p.A. operates in Italy in the fixed and mobile telecommunications sector.
The TIM S.p.A. separate financial statements at December 31, 2022 have been prepared on a going concern basis (further details are provided in the Note "Accounting Policies") and in accordance with the International Financial Reporting Standards issued by the International Accounting Standards Board and endorsed by the European Union (designated as "IFRS"), as well as laws and regulations in force in Italy.
It should also be noted that in 2022 TIM S.p.A. applied accounting standards consistent with those of the previous year.
The separate financial statements have been prepared under the historical cost convention except for financial assets measured at fair value through other comprehensive income, financial assets measured at fair value through profit or loss and derivative financial instruments which have been measured at fair value. The carrying amounts of hedged assets and liabilities have been adjusted to reflect the changes in fair value of the hedged risks (fair value hedge).
In accordance with IAS 1 (Presentation of Financial Statements) comparative information included in the consolidated financial statements refers, unless otherwise indicated, to the previous year.
The statements of financial position, the separate income statements, the statements of comprehensive income, the statements of changes in equity and the statements of cash flows are presented in euros (without cents) and the notes to these separate financial statements in millions of euros, unless otherwise indicated.
The publication of TIM S.p.A.'s separate financial statements for the year ended December 31, 2022 was approved by resolution of the Board of Directors on March 15, 2023.
However, final approval of the TIM S.p.A. separate financial statements rests with the shareholders' meeting.

Financial statement formats

The financial statement formats adopted are consistent with those indicated in IAS 1. In particular:

- the **statements of financial position** have been prepared by classifying assets and liabilities according to the "current and non-current" criterion;
- the **separate income statements** have been prepared by classifying operating costs by nature of expense, as this form of presentation is considered more appropriate and representative of the specific business of the Company, conforms to internal reporting and is in line with industry practice.
  In addition to EBIT or Operating profit (loss), the separate income statements include the alternative performance measure of EBITDA or Operating profit (loss) before depreciation and amortization, Capital gains (losses) and Impairment reversals (losses) on non-current assets.

  In particular, besides EBIT, EBITDA is used by TIM as the financial target in internal presentations (business plans) and in external presentations (to analysts and investors). It represents a useful unit of measurement for the evaluation of the operating performance of TIM S.p.A. EBIT and EBITDA are calculated as follows:

Profit (loss) before tax from continuing operations	
+	Finance expenses
-	Finance income
+/-	Income (Expenses) from investments
EBIT – Operating profit (loss)	
+/-	Impairment losses (reversals) on non-current assets
+/-	Losses (gains) on disposals of non-current assets
+	Depreciation and amortization
EBITDA – Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets	

- the **statements of comprehensive income** include the profit or loss for the year as shown in the separate income statements and all other non-owner changes in equity;
- the **statement of cash flows** has been prepared by presenting cash flows from operating activities according to the "indirect method", as permitted by IAS 7 (Statement of Cash Flows).

Furthermore, as required by Consob Resolution 15519 of July 27, 2006, in the separate income statement, income and expenses relating to transactions, which by nature do not occur during normal operation (non-recurring transactions) have been specifically identified and their impact has been shown separately, when they are significant. Specifically, non-recurring income/(expenses) include, for instance: income/expenses arising from the sale of property, plant and equipment, business segments and investments; expenses stemming from company reorganization and streamlining processes and projects, also in connection with corporate transactions (mergers, spin-offs, etc.); expenses resulting from litigation and regulatory sanctions and related liabilities; other provisions and related reversals; costs for the settlement of disputes other than regulatory disputes; adjustments, realignments and other non-recurring items, also relating to previous years; impairment losses on goodwill and/or other intangible and tangible assets. Certain costs related to the COVID-19 pandemic are also identified as non-recurring charges.
Also in reference to the above Consob Resolution, the amounts relating to balances or transactions with related parties have been shown separately in the financial statements.

NOTE 2
ACCOUNTING POLICIES

Going concern

The separate financial statements for the year 2022 have been prepared on a going concern basis as there is the reasonable expectation that TIM S.p.A. will continue its operational activities in the foreseeable future (and in any event for a time horizon of at least twelve months).
In particular, the following factors have been taken into consideration:

- the main risks and uncertainties (that are for the most part of an external nature) to which TIM is exposed:
    - variations in business conditions, also related to competition;
    - financial risks (interest rate and/or exchange rate trends, changes in the Group's credit rating by rating agencies);
    - changes in the general macroeconomic situation in the Italian, European and Brazilian markets, as well as the volatility of the financial markets deriving from the risks of recession and inflation linked to both the continuation of COVID-19 and its possible variants and the increase in the cost of commodities and energy, also following the Russian-Ukraine conflict;
    - changes in the legislative and regulatory context (changes in prices and tariffs or decisions that may influence technological choices) and the outcome of the legal and regulatory authority proceedings.
- the optimal mix between risk capital and debt capital, as well as the policy for the remuneration of risk capital, as described in the section "Share capital information" under the Note "Equity";
- the policy for financial risk management (market risk, credit risk and liquidity risk), as described in the Note "Financial risk management".

Based on these factors, the Management believes that, at the present time, there are no elements of uncertainty regarding TIM S.p.A.'s ability to continue as a going concern.

Intangible assets

Goodwill

In accordance with IFRS 3 (Business Combinations), goodwill is recognized in the financial statements at the acquisition date (including through mergers or contributions) of companies or business units and is calculated as the difference between the consideration paid (measured in accordance with IFRS 3, generally determined on the basis of the fair value at the acquisition date) and the fair value at the acquisition date of the identifiable assets acquired net of the identifiable liabilities assumed.

Goodwill is classified in the statements of financial position as an intangible asset with an indefinite useful life, whereas any gain from a bargain purchase or negative goodwill is recognized in the separate income statement.

Goodwill initially recognized is subsequently reduced only by cumulative impairment losses (for more details, see the section "Impairment of intangible assets, tangible assets and rights of use assets - Goodwill", below).

Development costs

Costs incurred internally for the development of new products and services represent either intangible assets (mainly costs for software development) or tangible assets. These costs are capitalized only when all the following conditions are satisfied: i) the cost attributable to the development phase of the asset can be measured reliably, ii) there is the intention, the availability of financial resources and the technical ability to complete the asset and make it available for use or sale, and iii) it can be demonstrated that the asset will be able to generate future economic benefits. Capitalized development costs comprise only incurred expenditures that can be attributed directly to the development process for new products and services.

Capitalized development costs are depreciated/amortized systematically over the estimated product or service life, so that the depreciation/amortization method reflects the way in which the asset's future economic benefits are expected to be consumed by the entity.

Other intangible assets with a finite useful life

Other purchased or internally-generated intangible assets with a finite useful life are recognized as assets, in accordance with IAS 38 (Intangible Assets), when the use of the asset is likely to generate future economic benefits and when the cost of the asset can be reliably measured.
Such assets are recorded at purchase or production cost and amortized on a straight-line basis over their estimated useful lives; the amortization rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized in the separate income statements prospectively.

Tangible assets

Property, plant and equipment

Property, plant and equipment are recognized at purchase or production cost. Subsequent expenditures are capitalized only if they increase the future economic benefits embodied in the related item of property, plant and equipment. All other expenditures are expensed as incurred.
The cost of these assets also includes the expected costs of dismantling the asset and restoring the site, if a legal or constructive obligation exists. The corresponding liability is recognized at its present value as a provision in the statement of financial position. These capitalized costs are depreciated and charged to the separate income statements over the useful life of the related tangible assets.
The calculation of estimates for dismantling costs, discount rates and the dates in which such costs are expected to be incurred is reviewed annually at each financial year-end. Changes in the above liability must be recognized as an increase or decrease of the cost of the related asset; the amount deducted from the cost of the asset must not exceed its carrying amount. The excess if any, should be recorded immediately in the separate income statements, conventionally under the line item "Depreciation and Amortization".
Depreciation is calculated on a straight-line basis over the estimated useful life of the assets. Depreciation rates are reviewed annually and revised if the current estimated useful life is different from that estimated previously. The effect of such changes is recognized in the separate income statements prospectively.
Land, including land pertaining to buildings, is not depreciated.

Rights of use assets

In accordance with IFRS 16, lease liabilities are presented through the recognition of a financial liability in the statement of financial position consisting in the present value of future lease payments, against the recognition of the right of use of the leased asset.
On the commencement date of the lease, the right of use is recognized at cost including: the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date, initial direct costs incurred for the signature of the lease and the present value of the estimated restoration and dismantling costs set out in the lease, less any incentives.
Subsequently, the right of use is amortized over the term of the lease (or the useful life of the asset, if lower), subject to impairment and adjusted for any remeasurement of the lease liability.
It is specified that starting January 1, 2021, TIM has attracted, under the scope of application of IFRS 16, if the criteria and the requirements laid down by the standard are met, the new contract types concerning cloud software resources and the spectrum of transmission frequencies on optic fiber carriers. This approach is functional to the very innovative specificity of these types of contract, concerning hardware infrastructure and optical transmission as well as technologically-advanced software services.

Impairment of intangible, tangible and rights of use assets

Goodwill

Goodwill is tested for impairment at least annually or more frequently whenever events or changes in circumstances indicate that goodwill may be impaired, as set forth in IAS 36 (Impairment of Assets); however, when the conditions that gave rise to an impairment loss no longer exist, the original amount of goodwill is not reinstated.

The test is generally conducted at the end of every year, so the date of testing is the year-end closing date of the financial statements. Goodwill acquired and allocated during the year is tested for impairment at the end of the year in which the acquisition and allocation took place.

For the purpose of verifying its recoverability, goodwill is allocated, from the acquisition date, to each of the cash-generating units, or groups of cash-generating units, that is expected to benefit from the combination.

If the carrying amount of the cash-generating unit (or group of cash-generating units) exceeds the recoverable amount, an impairment loss is recognized in the separate income statement. The impairment loss is first recognized as a deduction of the carrying amount of goodwill allocated to the cash-generating unit (or group of cash-generating units) and only subsequently applied to the other assets of the cash-generating unit in proportion to their carrying amount, up to the recoverable amount of the assets with a finite useful life. The recoverable amount of a cash-generating unit (or group of cash-generating units) to which goodwill is allocated is the higher between the fair value less costs to sell and its value in use.

The fair value net of disposal costs is estimated on the basis of the income approach, insofar as this allows for the reflection of the benefits deriving from a new, different business structure in the future. In particular, the fair value net of disposal costs is based on the current value of the forecast cash flow, applying a discounting rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value.

In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The future cash flows are those arising from an explicit time horizon between three and five years, as well as those extrapolated to estimate the terminal value. The long-term growth rate used to estimate the terminal value of the cash-generating unit (or group of cash-generating units) is assumed not to be higher than the average long-term growth rate of the segment or market in which the cash-generating unit (or group of cash-generating units) operates.

Future cash flows are estimated by referring to the current operating conditions of the cash-generating unit (or group of cash-generating units) and, therefore, do not include either benefits originating from future restructuring for which the entity is not yet committed, or future investments for the improvement or optimization of the cash-generating unit.

For the purpose of calculating impairment, the carrying amount of the cash-generating unit is established based on the same criteria used to determine the recoverable amount of the cash-generating unit, excluding surplus assets (that is, financial assets, deferred tax assets and net non-current assets held for sale).

After conducting the goodwill impairment test for the cash-generating unit (or groups of cash-generating units), a second level of impairment testing is carried out which includes the corporate assets which do not generate positive cash flows and which cannot be allocated by a reasonable and consistent criterion to the single units. At this second level, the total recoverable amount of all cash-generating units (or groups of cash-generating units) is compared to the carrying amount of all cash-generating units (or groups of cash-generating units), including also those cash-generating units to which no goodwill was allocated, and the corporate assets.

Tangible and intangible assets with finite useful lives and rights of use assets

At the end of each reporting period, the Company assesses whether there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – may be impaired. Both internal and external sources of information are used for this purpose. Internal sources include obsolescence or physical deterioration, and significant changes in the use of the asset and the operating performance of the asset compared to estimated performance. External sources include the market value of the asset, changes in technology, markets or laws, trend in market interest rates and the cost of capital used to evaluate investments, and an excess of the carrying amount of the net assets of the Company over market capitalization.
If there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – has been impaired, then its carrying amount is reduced to its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell, and its value in use. In calculating the value in use, the estimated future cash flows are discounted to present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or right. Where it is not possible to estimate the recoverable amount, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs. Impairment losses are recognized in the separate income statement.
When the reasons for the impairment subsequently cease to exist, the carrying value of the asset/ right of use or of the cash generating unit is increased up to the new estimate of the recoverable amount which, however, cannot exceed the amount that would have been determined had no impairment loss been recognized. The reversal of an impairment loss is recognized as income in the separate income statements.

Financial instruments

Business models for financial assets management

For the management of trade receivables, Company Management has identified different business models based on the specific nature of the receivables, the type of counterparty and collection times, this was in order to optimize the management of working capital through the constant monitoring of the payment performance of customers, the steering of credit collection policies, and the management of programs for the disposal of receivables,
and the activation of factoring consistent with financial planning requirements.
The business models adopted are:

- Hold to Collect: receivables usually held to maturity, such as trade receivables due from large customers and the OLOs; these instruments fall within IFRS 9 category “Assets measured at amortized cost”. These receivables can be transferred, albeit not recurrently, if this is needed to optimize finances;
- Hold to Collect and Sell: receivables usually traded massively and on a recurring basis, such as receivables due from active consumer, small and business customers held for sale; these instruments fall under IFRS 9 category "Financial assets measured at fair value through other comprehensive income". As required by IFRS 9, the related reserve is reversed to the separate income statements when disposed of or impaired.

As part of managing financial assets other than trade receivables, Company Management has identified its business models on the basis of how the financial instruments are managed and how their cash flows are used. This is done to ensure an adequate level of financial flexibility and to best manage, in terms of risks and returns, the financial resources immediately available and in accordance with the strategies.
The Business Models adopted are the following:

- Hold to Collect: financial instruments used to absorb temporary cash surpluses; such instruments are low risk and mostly held to maturity; they are measured at amortized cost;
- Hold to Collect and Sell: monetary or debt instruments used to absorb short/medium-term cash surpluses; such instruments are low risk and generally held to maturity, or otherwise sold to cover specific cash requirements; they are measured at fair value through other comprehensive income;

- Hold to Sell: monetary, debt and equity trading instruments used to dynamically manage cash surpluses not managed under the business models identified above; such instruments are higher risk and traded repeatedly over time; they are measured at fair value through profit or loss.

Investments in subsidiaries, associates and joint ventures

Investments in subsidiaries, associates and joint ventures are measured at cost adjusted by impairment losses. When there is objective evidence of an impairment, recoverability is verified by comparing the carrying amount of the investment against its recoverable amount consisting of the greater of fair value, net of disposal costs, and value in use.

Other investments

Other investments (other than those in subsidiaries, associates and joint ventures) are classified as non-current or current assets if they will be kept in the Company's portfolio for a period of more or not more than 12 months, respectively.

Other investments are classified as "financial assets measured at fair value through profit or loss" (FVTPL), as current assets.

At the purchase time of each investment, IFRS 9 provides for the irrevocable option to recognize these investments in "financial assets measured at fair value through other comprehensive income" (FVTOCI) as non-current or current assets.

The other investments classified as "financial assets measured at fair value through other comprehensive income" are measured at fair value; changes in the fair value of these investments are recognized in a special equity reserve under the other components of the statements of comprehensive income (Reserve for financial assets measured at fair value through other comprehensive income), without reclassification to the separate income statements when the financial asset is disposed of or impaired. Dividends, on the other hand, are recognized in the separate income statements.
Changes in the value of other investments classified as "financial assets at fair value through separate profit or loss" are recognized directly in the separate income statements.

Securities other than investments

Securities other than investments, included among non-current or current assets, depending on the business model adopted and the contractual flows envisaged, fall among financial assets measured at amortized cost, or measured at fair value through other comprehensive income or at fair value though profit or loss.
Securities other than investments, classified as current assets, are those that, by decision of the directors, are intended to be kept in TIM S.p.A.'s portfolio for a period of not more than 12 months, and are included:

- as "financial assets measured at amortized cost" (AC) when held to maturity (originally more than 3 months but less than 12 months, or, although they had an original maturity of more than 12 months, they have been bought in a period during which maturity was included between 3 and 12 months);
- as "financial assets measured at fair value through other comprehensive income" (FVTOCI) when held in the scope of a business model whose objective is to sell the financial asset and/or collect the contractual flows. The "Reserve for financial assets measured at fair value through other comprehensive income" is reversed to the separate income statements when the financial asset is disposed of or impaired;
- as "financial assets measured at fair value through profit or loss" (FVTPL) in the other cases.

Cash and cash equivalents

Cash and cash equivalents are recorded, according to their nature, at nominal value or amortized cost.
Cash equivalents are short-term and highly liquid investments that are readily convertible to known amounts of cash, subject to an insignificant risk of change in value and their original maturity or the remaining maturity at the date of purchase does not exceed 3 months.

Impairment of financial assets

At every closing date, assessments are made as to whether there is any objective evidence that a financial asset or a group of financial assets has been impaired.
The impairment of financial assets is based on the expected credit loss model.
In particular:

- impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions;
- the impairment of financial assets other than trade receivables is calculated on the basis of a general model which estimates expected credit losses over the following 12 months or over the residual life of the asset in the event of a substantial worsening of its credit risk.

Derivatives

As allowed by IFRS 9, the Company decided to continue to apply the hedge accounting provisions contained in IAS 39 instead of those of IFRS 9.

Derivatives are used by the Company to manage its exposure to exchange rate and interest rate risks and to diversify the parameters of debt so that costs and volatility can be reduced to within pre-established operational limits.
In accordance with IAS 39, derivative financial instruments qualify for hedge accounting only when:

- at the inception of the hedge, the hedging relationship is formally designated and documented;
- the hedge is expected to be highly effective;
- its effectiveness can be reliably measured;
- the hedge is highly effective throughout the financial reporting periods for which it is designated.

All derivative financial instruments are measured at fair value in accordance with IAS 39.
When derivative financial instruments qualify for hedge accounting, the following accounting treatment applies:

- Fair value hedge – Where a derivative financial instrument is designated as a hedge of the exposure to changes in fair value of an asset or liability due to a particular risk, the gain or loss from re-measuring the hedging instrument at fair value is recognized in the separate income statements. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is recognized in the separate income statement.
- Cash flow hedge – Where a derivative financial instrument is designated as a hedge of the exposure to variability in cash flows of an asset or liability or a highly probable expected transaction, the effective portion of any gain or loss arising from the fair value adjustment of the derivative financial instrument is recognized directly in a specific equity reserve (Reserve for hedging instruments). The cumulative gain or loss is removed from equity and recognized in the separate income statements at the same time the hedged transaction affects the separate income statement. The gain or loss associated with the ineffective portion of a hedge is recognized in the separate income statements immediately. If the hedged transaction is no longer probable, the cumulative gains or losses included in the equity reserve are immediately recognized in the separate income statement.

For derivatives for which a hedging relationship has not been designated, changes in value compared to initial recognition are recognized directly in the separate income statement.

Financial liabilities

Financial liabilities include financial payables, including payables for advances on assignments of receivables where the assignment does not transfer substantially all the risks and rewards, as well as other financial liabilities, including derivative financial instruments and liabilities in respect of assets recognized under finance leases recognized in accordance with IFRS 16.
In accordance with IFRS 9, they also include trade and other payables.
Reverse factoring transactions are also classified under trade payables. TIM has put in place reverse factoring agreements through which TIM gives partner banks a mandate to pay its suppliers as invoices become due. Suppliers participating in these programs have the right to sell (without any cost for TIM) receivables due from TIM. They can exercise this right at their total discretion and incurring all the costs to benefit from collection before the contractual due date.
Financial liabilities other than derivatives are initially recognized at fair value and subsequently measured at amortized cost.

Financial liabilities hedged by derivative instruments designed to manage exposure to changes in fair value of the liabilities (fair value hedge derivatives) are measured at fair value in accordance with the hedge accounting principles of IAS 39. Gains and losses arising from re-measurement at fair value, to the extent of the hedged component, are recognized in the separate income statements and are offset by the effective portion of the gain or loss arising from re-measurement at fair value of the hedging instrument.
Financial liabilities hedged by derivative instruments designed to manage exposure to variability in cash flows (cash flow hedge derivatives) are measured at amortized cost in accordance with the hedge accounting principles of IAS 39.

Transfer of receivables

TIM S.p.A. carries out sales of receivables under factoring and securitization contracts. These transfers, in the majority of cases, are characterized by the transfer of substantially all the risks and rewards of ownership of the receivables to third parties, therefore meeting the requirements of IFRS 9 for derecognition. Special service agreements, under which the purchasers grant TIM S.p.A. a mandate to oversee the collection and management of receivables, have been entered into to maintain the relationship between the Company and its customers.

Inventories

Inventories are measured at the lower of purchase and production cost and estimated realizable value; the cost is determined using the weighted average cost formula for each movement, while the estimated realizable value is determined by observing general prices at the end of the year. Provision is made for obsolete and slow-moving inventories based on their expected future use and estimated realizable value.

Non-current assets held for sale/Discontinued operations

Non-current assets held for sale or disposal groups whose carrying amount will mainly be recovered through sale, rather than through ongoing use, are classified as held for sale and shown separately from other assets

and liabilities in the separate statements of financial position. The corresponding amounts for the previous year are not reclassified in the statement of financial position but are instead shown separately in a specific column in the changes in assets and liabilities in the year in which the non-current assets held for sale or the disposal groups are classified as such.
Discontinued operations are a component of an entity that has been terminated or classified as held for sale and that:

- represents a major business line or geographical area of operation; or
- is part of a single coordinated plan to discontinue a separate major line of business or geographical area of operation; or
- is a subsidiary acquired exclusively with a view to resale.

The results arising from Discontinued Operations – whether disposed of or classified as held for sale – are shown separately in the separate income statement, net of tax effects. The corresponding values for the previous periods, where present, are reclassified and reported separately in the separate income statement, net of tax effects, for comparative purposes.
Non-current assets held for sale or discontinued groups classified as held for sale are first recognized in compliance with the appropriate IFRS applicable to each specific asset and liability, and subsequently measured at the lower of the carrying amount and fair value, less cost to sell.
Any subsequent impairment losses are recognized as a direct adjustment to the non-current assets or disposal groups classified as held for sale and expensed in the separate income statement.
An upward revision of value is, instead, recognized for each subsequent increase in the fair value of an asset less cost to sell, but not in excess of the previously recognized cumulative impairment loss.
As required by IFRS 5 (Non-current assets held for sale and discontinued operations), an entity shall not depreciate (or amortize) non-current assets classified as held for sale or being part of a discontinued group.
Finance expenses and other expenses attributable to the liabilities of a discontinued group classified as held for sale must continue to be recognized.

Employee benefits

Provision for employee severance indemnity

Employee severance indemnities, mandatory pursuant to Article 2120 of the Italian Civil Code, is deferred compensation and is based on the employees' years of service and the compensation earned by the employee during the service period.
Under IAS 19 (Employee Benefits), the employee severance indemnity, so calculated, is considered a "Defined benefit plan" and the related liability to be recognized in the statement of financial position (Provision for employee severance indemnities) is determined by actuarial calculations.
The *remeasurements* of actuarial gains and losses are recognized in other components of other comprehensive income. The interest expenses related to the "time value" component of the actuarial calculations (the latter classified as Finance expenses), are recognized in the separate income statements under financial expenses.
Starting from January 1, 2007, the Italian Law gave employees the choice to either allocate their accruing indemnity to supplementary pension funds or it as an obligation of the Company. Companies that employ at least 50 employees must transfer the employee severance indemnity to the "Treasury fund" managed by INPS, the Italian Social Security Institute. Consequently, the Group's obligation to INPS and the contributions to supplementary pension funds take the form, under IAS 19, of "Defined contribution plans".

Equity compensation plans

TIM S.p.A. provides additional benefits to certain managers of the Group companies through equity compensation plans (for example: stock options and long-term incentive plans). The above plans are recognized in accordance with IFRS 2 (*Share-Based Payment*).
In accordance with IFRS 2, such plans represent a component of the beneficiaries' compensation. Therefore, for the plans that provide for compensation in equity instruments, the cost is represented by the fair value of such instruments at the grant date, and is recognized in "Employee benefits expenses", for employees of the Company, and in "Investments", for employees of subsidiaries, over the period between the grant date and vesting date with a contra-entry to an equity reserve denominated "Other equity instruments". Changes in the fair value subsequent to the grant date do not affect the initial measurement. At the end of each year, adjustments are made to the estimate of the number of rights that will vest up to maturity. An adjustment is made to "Other equity instruments" for the impact of the change in estimate with contra-entry to "Employee benefits expenses" or "Investments".
For the portion of the plans that provide for the payment of compensation in cash, the amount is recognized in liabilities as a contra-entry to "Employee benefits expenses" for employees of the Company, and in "Investments", for employees of subsidiaries; at the end of each year such liability is measured at fair value.

Provisions

The Company records provisions for risks and charges when it has a present obligation, legal or constructive, to a third party, as a result of a past event, when it is probable that an outflow of resources will be required to satisfy the obligation and when the amount of the obligation can be estimated reliably. Provisions for risks and charges also include those established in the event that the company should stipulate contracts that thereafter became onerous, the non-discretionary costs of which necessary to fulfill the commitments made exceeding the economic benefits expected from such contracts.
If the effect of the time value is material, and the payment date of the obligations can be reasonably estimated, provisions to be accrued are the present value of the expected cash flows, taking into account the risks associated with the obligation. The increase in the provision due to the passage of time is recognized as "Finance expenses".

Government grants

Government grants are recognized when there is a reasonable certainty that they will be received and that the Company will satisfy all the conditions established for their granting by the government, government entities and equivalent local, national or international entities.
Government grants are recognized in the separate income statement, on a straight-line basis, over the periods in which the Company recognizes the expenses that the grants are intended to offset as costs.
Government grants related to assets received for the acquisition and/or construction of non-current tangible assets are recorded as deferred income in the statement of financial position and systematically credited to the separate income statements over the useful life of the systems the grants relate to.

Treasury shares

Treasury shares are recognized as a deduction from equity. In particular, the treasury shares are reported as a deduction from the share capital issued in the amount corresponding to the "accounting par value", that is the ratio of total share capital and the number of issued shares, while the excess cost of acquisition over the accounting par value is presented as a deduction from "Other reserves and retained earnings (accumulated losses), including profit (loss) for the year".

Foreign currency transactions

Transactions in foreign currencies are recorded at the foreign exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rate prevailing at the statement of financial position date. Exchange differences arising from the settlement of monetary items or from their conversion at rates different from those at which they were initially recorded during the year or at the end of the prior year, are recognized in the separate income statements.

Revenues

Revenues are the gross inflows of economic benefits during the period arising in the course of the ordinary activities of an entity. Amounts collected on behalf of third parties such as sales taxes, goods and services taxes and value added taxes are not economic benefits which flow to the entity and do not result in increases in equity. Therefore, they are excluded from revenues.

The process underlying the recognition of revenues follows the steps set out in IFRS 15:

- **identification of the contract:** takes place when the parties approve the contract (with commercial substance), and identify the respective rights and obligations: in other terms, the contract must be legally binding, the rights to receive goods and/or services and the terms of payment can be clearly identified and the Company considers receipt of payment as probable;
- **identification of the performance obligations**: the main performance obligations identified, i.e. promises to transfer goods and services that are distinct, are services rendered (including voice and data traffic and ICT solutions) to retail customers, services rendered to wholesale customers, and sale of products;
- **determination of the transaction price:** is the total amount contracted with the other party regarding the entire contractual term. The Company has determined that the contractual term is the one arising from the contractual obligations between the parties or, in lack of these obligations, it is by convention one month;
- **allocation of the transaction price to the performance obligations:** the allocation is made proportionately to the respective stand-alone selling prices calculated based on the list prices (if present) or estimated by applying an appropriate margin to the cost of purchase/production of the good/service.

  Revenues from activating the connectivity service are not a performance obligation; they are therefore allocated to the contractual performance obligations (typically to services).
  For offerings which include the sale of devices and service contracts (bundle offerings), the Company allocates the contractual transaction price to the performance obligations of the contract, proportionately to the stand-alone selling prices of the single performance obligations;
- **recognition of revenues**: revenues are stated net of discounts, allowances, and returns in connection with the characteristics of the type of revenue:
  - **Revenues from services rendered**

    Revenues from services rendered are recognized in the separate income statements according to the stage of completion of the service, that is based on actual consumption.
    Traffic revenues from interconnection and roaming are reported gross of the amounts due to other TLC operators.
    Revenues for delivering information or other content are recognized on the basis of the amount invoiced to the customer, when the service is rendered directly by the Company. In the event that the Company is acting as agent (for example non-geographic numbers) only the commission received from the content provider is recognized as revenue.
    Revenues from prepaid traffic are recorded on the basis of effective consumption. Deferred revenues for traffic already collected but not yet consumed are recorded in "Trade and miscellaneous payables and other current liabilities" in the statements of financial position.
    Revenues for services rendered are generally invoiced and collected bimonthly/monthly for retail customers while for wholesale customers, they are invoiced on a monthly basis and due 40 or 60 days after the date of issue, depending on whether they relate to the mobile component (40 days) or fixed component (60 days).

- **Revenues from sales**

  Revenues from sales (telephone products and others) are recognized upon delivery when control of the assets is transferred to the customers.
  The devices sold separately from the services are invoiced at the time of delivery; collection takes place on demand or based on installment plans (up to 48 monthly installments). The devices sold as part of bundle offerings are invoiced at the time of delivery and usually collected in 24, 30 or 48 monthly installments, depending on the type of offer and customer cluster. With specific reference to the mobile products sold to consumer customers, collection is made at the time of sale through the financial company TIMFin, which disburses the loan to the customer.

The recognition of revenues can generate the recognition of an asset or liability deriving from contracts. In particular:

- **Contract assets** are the right to a consideration in exchange for goods or services that have been transferred to the customer, when the right is conditioned on something other than the passage of time;
- **Liabilities deriving from a contract** are the obligation to transfer goods or services to the customer for which the Company has received (or for which it is due) a consideration from the customer.

Contract costs (incremental costs of obtaining a contract and costs to fulfill a contract; mainly technical activation costs and costs for sales network commissions) are deferred and recognized through separate profit or loss depending on the expected term of the contractual relationship with the customers. TIM avails itself of the practical expedient, provided for by IFRS 15, to recognize the incremental costs for obtaining the contract entirely in the income statement, provided the amortization period does not exceed 12 months.

The recoverability of contract assets and deferred costs is periodically assessed.

Research and advertising costs

Research costs and advertising expenses are charged directly to the separate income statements in the year in which they are incurred.

Finance income and expenses

Finance income and expenses are recognized on an accrual basis and include: interest accrued on the related financial assets and liabilities using the effective interest rate method; changes in the fair value of derivatives and other financial instruments measured at fair value through the income statement; gains and losses on foreign exchange and financial instruments (including derivatives).

Dividends

Dividends received are recognized in the separate income statements in the year in which they become receivable following the resolution by the shareholders' meeting for the distribution of dividends of the investee companies.

Dividends payable are reported as a change in equity in the year in which they are approved by the shareholders' meeting.

Income tax expense (current and deferred)

Income tax expense includes all taxes calculated on the basis of the taxable income of the Company.

Current and deferred income tax expense is calculated using all the elements and information available at the reporting date, taking into account current laws and considering all the elements that could give rise to uncertainties in the determination of the amounts due to the tax authorities, as provided for in IFRIC 23.

The income tax expense is recognized in the separate income statement, except to the extent that it relates to items directly charged or credited to equity, in which case the related tax effect is recognized in the relevant equity reserves. In the Statements of comprehensive income the amount of income tax expense relating to each item included as "Other components of the Statements of comprehensive income" is indicated.

Deferred tax liabilities/assets are recognized using the "Balance sheet liability method". They are calculated on all temporary differences that arise between the tax base of an asset or liability and the relevant carrying amounts in the separate financial statements. Deferred tax assets relating to unused tax loss carryforwards are recognized to the extent that it is probable that future taxable income will be available against which they can be utilized. Tax assets and liabilities are offset when there is a legally enforceable right of offset. Prepaid tax assets and deferred tax liabilities are determined by adopting the tax rates that are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The other taxes not related to income are included in "Other operating expenses".

Use of accounting estimates

The preparation of separate financial statements and related notes in conformity with IFRS requires management to make estimates and assumptions based also on subjective judgments, past experience and assumptions considered reasonable and realistic in relation to the information known at the time of the estimate. Such estimates have an effect on the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, as well as on the amount of revenues and costs during the year. Actual results could differ, even significantly, from those estimates owing to possible changes in the factors considered in the determination of such estimates. Estimates are reviewed periodically.

The most significant accounting estimates that involve a high level of subjective assumptions and judgments by directors are set out below.

Financial statements area	Accounting estimates
Goodwill impairment	The impairment test on goodwill is carried out by comparing the carrying amount of cash-generating units and their recoverable amount. The recoverable amount of a cash-generating unit is the higher of fair value, less costs to sell, and its value in use. This complex valuation process entails the use of methods such as the discounted cash flow method, which uses assumptions to estimate cash flows. The fair value net of disposal costs is based on the current value of forecast cash flow, calculated using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The recoverable amount depends significantly on the discount rate used in the discounted cash flow model, as well as the expected future cash flows and the growth rate used for the extrapolation. The key assumptions used to determine the recoverable amount for the different cash-generating units, including a sensitivity analysis, are detailed in the Note "Goodwill".
Impairment of tangible and intangible assets with finite useful lives and rights of use assets	At the end of each reporting period, the company assesses whether there is any indication that an asset – whether tangible or intangible with finite useful lives or a right of use – may be impaired. Both internal and external sources of information are used for this purpose. Identifying the impairment indicators, estimating future cash flows and calculating the fair value of each asset requires the Management to make significant estimates and assumptions in calculating the discount rate to be used, and the useful life and residual value of the assets. These estimates can have a significant impact on the fair value of the assets and on the amount of any impairment write-down.
Lease liabilities and rights of use assets	The value of lease liabilities and corresponding rights of use is determined by calculating the present value of the lease payments, also bearing in mind whether the renewal of the lease is reasonably certain.
Capitalization/deferment of costs	The capitalization/deferment of internal and external costs is a process that entails elements of estimation and valuation. Specifically, it involves the valuation of: i) the likelihood that capitalized costs will be recovered through correlated future revenues; and ii) the effective increase in the future economic benefits embodied in the related asset.
Provision for bad debts	Impairment on trade receivables and on contract assets is carried out using the simplified approach that involves estimating the loss expected over the life of the receivable at the time of initial recognition and on subsequent measurements. For each customer segment, the estimate is principally made by calculating the average expected uncollectibility, based on historical and statistical indicators, possibly adjusted using forward-looking elements. For some categories of receivables characterized by specific risk elements, specific measurements are made on individual credit positions.
Depreciation and amortization	Changes in the economic conditions of the markets, technology and competitive forces could significantly affect the estimated useful lives of tangible and intangible non-current assets and may lead to a difference in the timing, and thus on the amount of depreciation and amortization expense.
Provisions, contingent liabilities and employee benefits	As regards the provisions for restoration costs, the estimate of future costs to dismantle tangible assets and restore the site is a complex process that requires the valuation of the liabilities arising from such dismantling and restoration obligations, which seldom are entirely defined by laws, administrative regulations or contract clauses, and which normally are to be complied with after an interval of several years. The provisions related to legal, arbitration and fiscal disputes, as well as regulatory proceedings, are the result of a complex estimation process based upon the probability of an unfavorable outcome. Provisions for employee benefits, especially the provision for employee severance indemnities, are calculated using actuarial assumptions; changes in such assumptions could have a material impact on such liabilities. Provisions made for contractual risks are also related to any contracts that may have become onerous and are based on an articulated estimation process that envisages the valuation of the comprehensive negative margins of the entire contract; they therefore include the non-discretionary costs necessary to fulfill the commitments made that exceed the economic benefits expected from such contracts.
Revenues	The recognition of revenues is influenced by estimates of the amount of discounts, rebates and returns to be reported as a direct adjustment to revenues, as well as the methods for defining individual product or service stand-alone selling prices and for determining the duration of the contract when there are renewal options.
Contract costs (IFRS 15)	The recognition of the costs of obtaining and fulfilling contracts is influenced by the estimated expected duration of the relationship with the customer, calculated on the basis of the historical turnover indexes and future estimates. However, this estimate is subject to fluctuations and could only represent customers' future behavior in a limited way, especially if there are new commercial offers or changes in the competitive environment.
Income tax expense (current and deferred)	Income tax expense (current and deferred) are calculated according to a prudent interpretation of the tax laws in effect. This process sometimes involves complex estimates to determine taxable income and deductible and taxable temporary differences between the carrying amounts and the taxable amounts. In particular, deferred tax assets are recognized to the extent that future taxable income will be available against which they can be recovered. The measurement of the recoverability of deferred tax assets, recognized based on both unused tax loss carry-forwards to future years and deductible temporary differences, takes into account the estimate of future taxable income and is based on conservative tax planning.
Derivative instruments and equity instruments	The fair value of derivative instruments and equity instruments is determined both using valuation models which also take into account subjective measurements such as, for example, cash flow estimates, expected volatility of prices, etc., and on the basis of prices existing in regulated markets or quotations provided by financial counterparties. For further details refer to the Note "Supplementary disclosures on financial instruments".

As required by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), paragraph 10, in the absence of a Standard or an Interpretation that specifically applies to a particular transaction, Management, through careful subjective evaluation techniques, chooses the accounting methods to adopt with a view to providing financial statements which faithfully represent the financial position, the results of operations and the cash flows of the Company, which reflect the economic substance of the transactions, which are neutral, prepared on a prudent basis and complete in all material respects.

New standards and interpretations endorsed by the EU and in force from January 1, 2022

As required by IAS 8 (Accounting Policies, Changes in Accounting Estimates and Errors), the following is a brief description of the IFRS in force commencing as of January 1, 2022.

Collection of changes of limited scope to the IFRSs

On June 28, 2021, Commission Regulation (EU) 2021/1080 was issued, implementing various amendments of limited scope to the IFRSs. The collection includes changes to three IFRSs as well as annual improvements to the IFRSs that regard minor, non-urgent changes (but which are necessary). These changes must be applied for all years starting after January 1, 2022. The following amendments have been issued:

- **IAS 16: "Property, plant and equipment" - Proceeds before intended use**

  The amendment prohibits a company from deducting from the cost of Property, plant and equipment amounts received from selling items produced while the company is preparing the asset for the intended use (e.g. proceeds from the sale of samples produced when testing a machine to see if it is functioning properly).
  The proceeds form the sale of any such samples, together with the costs for their production, must be noted on the income statement.

- **IAS 37: "Onerous contracts - Costs of fulfilling a contract"**

  The amendment clarifies the meaning of "costs of fulfilling a contract". The amendment clarifies that the direct costs for the execution of a contract include:

  a. incremental costs for fulfilling the contract (e.g. labor and direct materials); and

  b. an allocation of other costs directly related to the fulfillment of contracts (e.g. allocation of the depreciation share for an item of Property, plant and equipment used to fulfill a contract).

  The change may entail the recording of more onerous provision as previously some entities only included the incremental costs in the costs for fulfilling a contract.

- **IFRS 3: "Reference to the conceptual framework"**

  The Board has updated IFRS 3 "Business combinations" to refer to the 2018 conceptual framework for financial reporting, in order to determine what exactly is an asset or a liability in a business combination. Before the amendment, IFRS 3 referred to the 2001 conceptual framework for the financial disclosure.

  These changes do not alter the accounting procedure envisaged for business combinations.

The adoption of these amendments had no effect on the separate financial statements at December 31, 2022.

Annual improvements to the IFRSs (2018–2020 cycle)

- **Amendment to IFRS 9 - Fees included in the 10 per cent test for derecognition of financial liabilities**

  This change establishes the commission to be included in the 10 per cent test for derecognition of financial liabilities (in the event of a change or exchange of a financial liability, IFRS 9 Financial instruments specifies a quantitative "10 per cent" test. This test assesses if the new contractual conditions between the borrower and creditor are substantively different from the original contractual conditions in determining whether or not the original financial liability should be derecognized.

  Costs or commissions may be paid to third parties or to the creditor. In accordance with the change, the costs or commissions paid to third parties will not be included in the 10 per cent test.

- **Amendment to the illustrative examples accompanying IFRS 16 "Leases"**

  The Board has amended Illustrative Example 13 that accompanies IFRS 16 to remove the illustration of the reimbursement of leasehold improvements by the lessor. The reason for the amendment is to remove any potential confusion regarding how lease incentives should be processed.

- **Amendment to IFRS 1 "First-time adoption of the International Financial Reporting Standards"**

  The amendment simplifies the adoption of IFRS 1 by a subsidiary that becomes a first-time adopter after its parent. IFRS 1 grants an exemption if a subsidiary adopts the IFRSs later than its parent. The subsidiary can measure its assets and liabilities at the carrying amounts that would be included in the consolidated financial statements of the parent, on the basis of the date of transfer of the parent company to the IFRSs, if no adjustments are made for the consolidation procedures and as a result of the corporate aggregation in which the parent acquired the subsidiary.

The Board has amended IFRS 1 to allow entities that adopted this exemption from IFRS 1 to also measure the cumulative conversion differences using the amounts reported by the parent, on the basis of the transition date of the parent company to the IFRSs. The change to IFRS 1 extends this exemption to the cumulative conversion differences in order to reduce the costs for first-time adopters. This change will also apply to associates and joint ventures that have obtained the same exemption from IFRS 1.

All these changes are in force starting January 1, 2022 with early application permitted.

The adoption of these amendments had no effect on the separate financial statements at December 31, 2022.

NEW STANDARDS AND INTERPRETATIONS ISSUED BY THE IASB BUT NOT YET APPLICABLE

At the date of preparation of these separate financial statements, the IASB had issued the following new Standards and Interpretations which have not yet come into force and have not yet been endorsed by the EU:

	Mandatory application starting from
New Standards and Interpretations not yet endorsed by the EU	
Amendments to IAS 1 Presentation of Financial Statements: classification of liabilities as current or non-current	1/1/2024
Amendments to IFRS 16: Lease liabilities in a sale and lease-back	1/1/2024
Amendments to IAS 1 Presentation of Financial Statements: non-current liabilities with covenants	1/1/2024
New Standards and Interpretations endorsed by the EU	
Amendments to IAS 8 - Accounting Policies, Changes in Accounting Estimates and Errors	1/1/2023
Amendments to IAS 12 Income taxes: deferred tax related to assets and liabilities arising from a single transaction	1/1/2023
Amendments to IAS 1 - Presentation of Financial Statements	1/1/2023
Amendments to IFRS 17 - Insurance contracts: initial application of IFRS 17 and IFRS 19 – Comparative information	1/1/2023

The potential impacts on the separate financial statements from application of these new standards and interpretations are currently being assessed.

NOTE 3
GOODWILL

The item at December 31, 2022 amounted to 12,064 million euros, down 897 million euros on December 31, 2021, and relates to the goodwill included in the domestic business segment of TIM S.p.A..

The change is mainly due to the recording of the sale of the portion of goodwill attributed to the investment in Daphne 3 S.p.A as well as the value of such investment, as a result of the acquisition by the Ardian fund of the share held by TIM, equal to 41% of the holding company Daphne 3, which, in turn, currently holds a 30.2% share in Infrastrutture Wireless Italiane ("INWIT").

The table below shows the changes to Goodwill in 2022:

(million euros)

Goodwill at January 1, 2021	**12,961**
Sale of share of goodwill in Daphne 3 S.p.A.	(898)
Acquisition of goodwill following Movenda merger	1
Goodwill at December 31, 2022	**12,064**

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's separate financial statements.

If, at consolidated financial statements level, the need should arise to write-down the goodwill in reference to a specific CGU, this write-down must be attributed, in the separate financial statements of TIM S.p.A., to the business referring to the same CGU, which has not already been tested individually, namely goodwill and controlling investments that are part of the same CGU.

Impairment tests carried out with reference to the CGU in the consolidated financial statements have determined the need to write down the goodwill allocated to the Domestic CGU, of which the controlling investments held by TIM S.p.A. in FiberCop, Noovle and Telecom Italia Sparkle, are a part.

Therefore, on the separate financial statements of TIM S.p.A., goodwill does not need to be impaired.

Below, therefore, is an explanation of how impairment testing of the Domestic CGU is carried out for the consolidated financial statements.

The value configuration used to determine the recoverable amount at December 31, 2022 is the fair value estimated on the basis of the income approach, insofar as this is considered able to best maximize the value of the Group's activities (the "market participant perspective"), also reflecting interventions on costs in view of a potential future new, different business structure.

The estimate of fair value on the basis of the Income approach was made in compliance with IAS 36, with valuation principles and best practices, with reference to the flows of the 2023-2025 Industrial Plan, which is based on the final results of 2022: (i) it reflects realistic expectations regarding future evolutions; (ii) it brings into play careful cost cutting actions as preparation for a future business structure; (iii) it maintains the perspective of use of assets of the domestic market continuing on with the same conditions as at 12/31/2022. The expected cash flows reported in the 2023-2025 Industrial Plan approved by the Board of Directors have been critically analyzed and, with the support of expert and industrial appraisers, the average representativity has been assessed. Expected average cash flows for the 2023-2025 Industrial Plan were extrapolated for an additional two years, thus bringing the explicit forecast period for future cash flows to a total of five years (2023-2027). The extrapolation of data for 2026-2027 was necessary in order to intercept market, competition and industrial trends that will become manifest beyond the forecast horizon of the Industrial Plan. It is specified that where inputs are present that cannot be observed, the fair value thus determined is assigned as level 3 of the fair value hierarchy, as envisaged by IFRS 13 - Fair value measurement.

As regards the estimate of the terminal value, the sustainable long-term cash flow was assumed to be the extrapolation of the estimated cash flow at 2027, adjusted as necessary to take into consideration a suitable level of long-term capital expenditure, normalized by the effects tied to the development of innovative technology projects in place during the plan years. Furthermore, with specific reference to the incremental share of the value deriving from 5G license use and therefore from the development of new and innovative business areas, a measurement model has been adopted that takes into account the net incremental flows for a defined period of time which is based on the duration of the license. This approach is consistent with the need to include in the configuration of value, on one hand the outflows deriving from the payment of the license and the capex to support its development (as per the Industrial Plan), and on the other the positive net flows from the incremental business component of the license acquisition that will develop over a broad period of time and over the five years of explicit forecast.

The cost of capital used to discount the future cash flows in the estimates of fair value:

- was estimated using the Capital Asset Pricing Model (CAPM), which is one of the generally accepted application criteria referred to in IAS 36;
- reflects current market estimates of the time value of money and the specific risks associated with the asset groups; includes appropriate yield premiums for country risk;
- was calculated using comparative market parameters to estimate the "Beta coefficient" and the weighting coefficient of the equity and debt capital components.

The following are provided below:

- the weighted average cost of capital (WACC rate) used to discount the future cash flows and the equivalent rate before tax;
- details are also provided of the growth rate used to estimate the residual value after the explicit forecast period (the G-Rate), expressed in nominal terms and related to the cash flows in their functional currency;
- details are provided of the implicit capitalization rates resulting from the difference between the cost of capital, after tax, and the G-Rate.

Principal parameters for the estimates of value in use

WACC	6.20 %
WACC before tax	7.89 %
Growth rate beyond the explicit period (g)	1.09 %
Capitalization rate after tax (WACC-g)	5.11 %
Capitalization rate before tax (WACC-g)	6.80 %
Capex/Revenues, perpetual	15.50 %

The growth rate in the terminal value "g" was estimated taking into account the expected evolution of demand for the various business areas, overseen in terms of investments and competences also by the subsidiaries Noovle and FiberCop. The growth rate thus estimated falls within the range of growth rates applied by analysts who monitor TIM shares.

The phase of capital expenditure, competitive positioning and the technological infrastructure operated was taken into account in estimating the level of investment needed to sustain the perpetual development of cash flows after the explicit forecast period.

A structural deterioration of the relevant parameters of the domestic assets and, notably, the WACC, may call for the application of impairment.

NOTE 4

INTANGIBLE ASSETS WITH A FINITE USEFUL LIFE

The item decreased by 255 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Conferment of Noovle	Investments	Amortization	Impairment (losses) /Reversals	Disposals	Other changes	12/31/2021
Industrial patents and intellectual property rights	**1,303**	(114)	514	(732)			310	**1,281**
Concessions, licenses, trademarks and similar rights	**3,000**			(380)				**2,620**
Other intangible assets	**—**		1				1	**2**
Work in progress and advance payments	**1,197**	(67)	540			(3)	(292)	**1,375**
Total	**5,500**	**(181)**	**1,055**	**(1,112)**	**—**	**(3)**	**19**	**5,278**

(million euros)	12/31/2021	Investments	Amortization	Impairment (losses) /Reversals	Disposals	Other changes	12/31/2022
Industrial patents and intellectual property rights	**1,281**	459	(735)		(1)	298	**1,302**
Concessions, licenses, trademarks and similar rights	**2,620**	71	(294)		(1)	920	**3,316**
Other intangible assets	**2**	1	(1)				**2**
Work in progress and advance payments	**1,375**	245				(1,217)	**403**
Total	**5,278**	**776**	**(1,030)**	**—**	**(2)**	**1**	**5,023**

Industrial patents and intellectual property rights consisted of software, patents and television rights. In particular:

- television rights for TIM multimedia platforms are amortized over the duration of the contracts;
- application and plant operation software, purchased outright and with user licenses, is amortized over an expected useful life of two, three or six years;
- patents are amortized over five years.

They increased by 21 million euros on December 31, 2021, following investments and potential exercise during the year.

Concessions, licenses, trademarks and similar rights mainly related to the residual cost of licenses for mobile and fixed telecommunications services. Compared to December 31, 2021, these were up by 696 million euros, mainly due to the entry into force of the rights to use the 2100 MHz bandwidth, which in 2021 was extended through to December 31, 2029 (240 million euros) and the entry into force of the rights to use 5G in the 694-790 MHz bandwidths (680 million euros) following the July 2022 acquisition of the availability of licenses. Investments included 65 million euros following the acquisition of the licenses for the 34-36 MHz OpNet bandwidth, acquired with an agreement with the OpNet (former Linkem) operator covering the reciprocal transfer of frequencies and enabled TIM to use an additional 20MHz nationally, reaching the maximum availability of 100MHz permitted in the frequency bandwidth 3.4-3.8 GHz usable by TIM, as 5G frequencies.

The amount of telephone licenses and similar rights in operation at December 31, 2022 and their useful lives are detailed below:

Type	Residual amount at 12/31/2022 (thousands of euros)	Useful life (Years)	Maturity	Amortization expense for 2022 (thousands of euros)
UMTS 2100 MHz (extension)	209,725	8	12/31/2029	29,961
WiMax (extension)	4,936	7	12/31/2029	924
34-36-MHz-Linkem band	61,211	7	12/31/2029	4,372
LTE 1800 MHz	59,997	18	12/31/2029	8,571
LTE 800 MHz	420,221	17	12/31/2029	60,032
LTE 2600 MHz	46,215	17	12/31/2029	6,602
L Band (1452-1492 MHz)	115,295	14	12/31/2029	16,471
900 and 1800 MHz band	383,239	11	12/31/2029	54,748
3600-3800 MHz band (5G)	1,331,179	19	12/31/2037	88,745
26.5-27.5 GHz band (5G)	26,068	19	12/31/2037	1,738
694-790 MHz band (5G)	658,258	15 years and 6 months	12/31/2037	21,942

Work in progress and advance payments amounted to 403 million euros (1,375 million euros at December 31, 2021) and reduced by 972 million euros, mainly following the coming into force of the rights to use the 2100 MHz bandwidth for 240 million euros and the coming into force of the rights to use 5G in the 694-790 MHz bandwidths in July 2022 for 680 million euros. Work in progress is mainly related to software developments and investments for the digital evolution of Network Infrastructures.

In 2022, **capital expenditures** came to 776 million euros and dropped 279 million euros on 2021, mainly following the coming into force of the extension through to December 31, 2029 of the rights to use the 2100 MHz bandwidth (240 million euros present in investments in progress at December 2021). This reduction was partly offset by the specific acquisition of the 34-36-MHz OpNet - former Linkem - bandwidth (65 million euros) and the extension of the WiMax licenses through to December 31, 2029 (5 million euros). They include 161 million euros of internally generated assets (146 million euros in 2021), involving development and evolutionary maintenance of software programs and platforms and innovative network engineering and solution, application and service design activities.

Amortization of intangible assets amounted to 1,030 million euros and decreased by 82 million euros compared to the amount recognized in 2021 (1,112 million euros). This performance is due for 85 million euros to lesser amortization with respect to licenses, mainly connected with the December 2021 expiry of the UMTS licenses (with an impact of 134 million euros of lesser depreciation and amortization with respect to December 2021). This reduction is partly offset by 49 million euros in greater amortization following the January 2022 commissioning of rights to use the 2100 MHz band (with an impact of 23 million euros), the July 2022 commissioning of the rights to use the 694-790 MHz bandwidth (with an impact of 22 million euros) and the July 2022 purchase of rights for the operator OpNet - formerly Linkem, to use the 34-36 MHz bandwidth (with an impact of 4 million euros).

Amortization is recorded in the income statement under the components of EBIT.

The gross carrying amount, accumulated impairment losses and accumulated amortization at December 31, 2022 and December 31, 2021 can be summarized as follows:

	12/31/2021			
(million euros)	**Gross carrying amount**	**Accumulated impairment losses**	**Accumulated amortization**	**Net carrying amount**
Industrial patents and intellectual property rights	7,471	(1)	(6,189)	**1,281**
Concessions, licenses, trademarks and similar rights	6,523		(3,903)	**2,620**
Other intangible assets	57		(55)	**2**
Work in progress and advance payments	1,375			**1,375**
Total	**15,426**	**(1)**	**(10,147)**	**5,278**

(million euros)	12/31/2022 Gross carrying amount	Accumulated impairment losses	Accumulated amortization	Net carrying amount
Industrial patents and intellectual property rights	7,733	(1)	(6,430)	**1,302**
Concessions, licenses, trademarks and similar rights	4,886		(1,570)	**3,316**
Other intangible assets	58		(56)	**2**
Work in progress and advance payments	403			**403**
Total	**13,080**	**(1)**	**(8,056)**	**5,023**

With reference to the gross values of intangible assets with a finite useful life, in 2022 disposals of 3,125 million euros were made in connection with licenses (UMTS licenses for 2,506 million euros and GSM licenses for 117 million euros expired and sale of WiMax licenses to OpNet for 6 million euros) and rights to use intellectual works, almost entirely amortized, including television rights expired for 16 million euros, BSS and OSS software application developments for 471 million euros, disposal of the Sandvine platform for 6 million euros.

NOTE 5
TANGIBLE ASSETS

The item decreased by 386 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Conferment of Noovle	Conferment of FiberCop	Investments	Depreciation	Impairment (losses)/ Reversals	Disposals	Other changes	12/31/2021
Land	**232**	(30)							**202**
Buildings (civil and industrial)	**571**	(122)		9	(28)		—	25	**455**
Plant and equipment	**8,660**	(48)	(2,414)	705	(1,338)		(19)	283	**5,829**
Manufacturing and distribution equipment	**21**			4	(9)			2	**18**
Other	**183**	(62)		60	(57)		(5)	27	**146**
Construction in progress and advance payments	**668**	(100)	(32)	389			(2)	(350)	**573**
Total	**10,335**	**(362)**	**(2,446)**	**1,167**	**(1,432)**	**—**	**(26)**	**(13)**	**7,223**

(million euros)	12/31/2021	Investments	Depreciation	Impairment (losses) / Reversals	Disposals	Other changes	12/31/2022
Land	**202**	—					**202**
Buildings (civil and industrial)	**455**	6	(28)			8	**441**
Plant and equipment	**5,829**	565	(1,173)		(23)	273	**5,471**
Manufacturing and distribution equipment	**18**	5	(8)		—	2	**17**
Other	**146**	33	(61)			12	**130**
Construction in progress and advance payments	**573**	290			(3)	(284)	**576**
Total	**7,223**	**899**	**(1,270)**	**—**	**(26)**	**11**	**6,837**

Land includes both built-up land (with buildings or light constructions) and other available land (on which various building works stand that are not recorded in the land registry, such as pylons, building podia, etc.). It should be noted that land, including land pertaining to buildings, is not depreciated. The item was unchanged compared to December 31, 2021.

Buildings (civil and industrial) includes buildings for industrial use hosting telephone exchanges or offices and light constructions (small prefabricated buildings and stacked containers). This item decreased by 14 million euros compared to December 31, 2021.

Plant and machinery represents the technical infrastructure used for the provision of telecommunications services (transport and distribution of voice/data traffic). In detail, this is investments and potential exercise relating mainly to underground and overhead copper network, optical fiber LTE/UMTS core transport and access network and access to transmission devices, including SDH-Wdm data network and switch, NGAN devices, power systems and fixed and mobile commercial products for customer rental contracts. The item dropped by 358 million euros on December 31, 2021, mainly following the lesser investments made in both the secondary network (following the contribution to FiberCop made in March 2021) and the copper network (consequent to the switch-off expected in 2030).

Manufacturing and distribution equipment consists of instruments and equipment used for the operation and maintenance of plant and equipment.

Other mainly consists of hardware for the functioning of the network and for work stations, furniture and fixtures and, to a minimal extent, transport vehicles and office machines; it dropped by 16 million euros on December 31, 2021.

Construction in progress and advance payments decreased by 3 million euros compared to December 31, 2021, mainly due to the slow-down of investments maintaining the copper network and greater consumptions of the plant warehouse compared with purchases. These include the internal and external costs incurred for the acquisition and internal production of tangible assets, which are not yet in use. Other changes included the entry intro operation of capitalizations from previous years. The item also includes the reclassification from Rights of use to Tangible assets in progress of the deposits in connection with the contract stipulated in 2020 with Telecom Italia Sparkle and relating to the BlueMed cable (approximately 8 million euros), consequent to a supplementary agreement signed as a mark of acceptance by TIM late 2022, which amended the contract signed in 2020 from sale of rights of use to sale of a pairing of dark fiber within the BlueMed underwater cable.

Disposal amounted to 26 million euros and mainly included the sale of Dark Fiber for network infrastructures (installation, transmission and access), and the abandonment of sites for Base Transceiver Stations and decommissioning of ARO SRB, the modernization of LTE transmission plants and physical-accounting alignments.

Capital expenditures for 2022 came to 899 million euros and decreased by 268 million euros compared to 2021; they are capital expenditure and exercisability mainly relating to the underground and aerial copper network (48 million euros), access and carrier network in fiber optics (96 million euros), LTE/UMTS core + access (78 million euros), transmission equipment including SDH-Wdm (109 million euros), data network and switching (29 million euros), NGAN equipment (10 million euros), power supply systems (23 million euros) and fixed and mobile commercial products for customer rental contracts (146 million euros). They include 154 million euros of internally generated assets (142 million euros in 2021), for design, construction and testing of network infrastructure and access and transmission networks.

Depreciation of tangible assets totaled 1,270 million euros, a decrease of 162 million euros compared to 2021.
Depreciation is calculated using the straight-line method over the remaining useful lives of the assets in accordance with the depreciation plan reviewed annually to take account of useful lives by single class of fixed asset. The effects of any changes in the useful life are recognized in the income statement prospectively.
Depreciation for the year 2022 is calculated on a straight-line basis over the estimated useful lives of the assets according to the following minimum and maximum rates:

Buildings (civil and industrial)	3.33% – 6.66%
Plant and equipment	3% - 50%
Manufacturing and distribution equipment	20%
Other	11% - 33%

The gross carrying amount, accumulated impairment losses and accumulated depreciation at December 31, 2022 and December 31, 2021 can be summarized as follows:

		12/31/2021		
(million euros)	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Land	202			**202**
Buildings (civil and industrial)	1,666		(1,211)	**455**
Plant and equipment	49,318	(9)	(43,480)	**5,829**
Manufacturing and distribution equipment	295		(277)	**18**
Other	1,307	(3)	(1,158)	**146**
Construction in progress and advance payments	575	(2)		**573**
Total	**53,363**	**(14)**	**(46,126)**	**7,223**

		12/31/2022		
(million euros)	Gross carrying amount	Accumulated impairment losses	Accumulated depreciation	Net carrying amount
Land	202			**202**
Buildings (civil and industrial)	1,678		(1,237)	**441**
Plant and equipment	48,866	(9)	(43,386)	**5,471**
Manufacturing and distribution equipment	302		(285)	**17**
Other	1,352	(2)	(1,220)	**130**
Construction in progress and advance payments	578	(2)		**576**
Total	**52,978**	**(13)**	**(46,128)**	**6,837**

With regard to the gross carrying amounts of tangible assets, in 2022 disposals were made for a total value of 1,294 million euros, mainly in relation to fully depreciated assets, including: access network (29 million euros), switching systems (52 million euros), underground fiber optics (9 million euros), UMTS and network transmission systems and equipment (1,081 million euros), rented terminals (32 million euros), power supply and conditioning systems (13 million euros), infrastructures and GSM SRB (63 million euros), aerials and cable laying (7 million euros), civil buildings (2 million euros).

NOTE 6
RIGHTS OF USE ASSETS

The item decreased by 132 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Conferment of Noovle	Conferment of FiberCop	Investments	Increases in lease contracts	Depreciation and amortization	Impairment (losses) /Reversals	Disposals	Other changes	12/31/2021
Rights of use on intangible assets										
Rights of use Concessions, Licenses, Trademarks and Similar Rights	—	—			4	(1)				3
Work in progress and advance payments	—									—
	—	—	—	—	4	(1)	—	—	—	3
Rights of use on tangible assets										
Property	**2,589**	(90)		34	186	(288)		(14)	30	**2,447**
Plant and equipment	**1,358**		27	19	50	(136)		(542)	(18)	**758**
Equipment	—									—
Other	**93**				13	(27)		(2)		**77**
Assets in progress and advance payments	**56**	(1)		19					(39)	**35**
	4,096	**(91)**	**27**	**72**	**249**	**(451)**	**—**	**(558)**	**(27)**	**3,317**
Total	**4,096**	**(91)**	**27**	**72**	**253**	**(452)**	**—**	**(558)**	**(27)**	**3,320**

(million euros)	12/31/2021	Investments	Increases in lease contracts	Depreciation and amortization	Impairment (losses) /Reversals	Disposals	Other changes	12/31/2022
Rights of use on intangible assets								
Rights of use Concessions, Licenses, Trademarks and Similar Rights	3			(2)				**1**
Work in progress and advance payments	—							—
	3	—	—	(2)	—	—	—	**1**
Rights of use on tangible assets								
Property	**2,447**	16	186	(298)		(55)	22	**2,318**
Plant and equipment	**758**	31	120	(133)		(14)	14	**776**
Other	**77**		15	(26)		(3)		**63**
Construction in progress and advance payments	**35**	22					(27)	**30**
	3,317	**69**	**321**	**(457)**	**—**	**(72)**	**9**	**3,187**
Total	**3,320**	**69**	**321**	**(459)**	**—**	**(72)**	**9**	**3,188**

The **rights of use on intangible assets** amounted to 1 million euros and include the recording as an IFRS 16 lease, starting 2021, of an agreement that can be qualified as "Software as a Service - SaaS", in exchange for which TIM has acquired the right to make exclusive use of software licenses residing on partitions of third party hardware platforms dedicated exclusively to the Company.

The **rights of use on tangible assets** amounted to 3,187 million euros and decreased compared to December 31, 2021 by 130 million euros. In particular:

- the item Property includes buildings and land under lease contracts and the related building adaptations. They reduced by 129 million euros, mainly as a result of period amortization, partly offset by increases and investments;
- the item Plant and equipment mainly includes rights of use on infrastructures for telecommunications services and rises by 18 million euros over December 31, 2021. It includes the lease increase following TIM's exercise of the right of renewal of the Master Service Agreement stipulated with INWIT S.p.A., with consequent extension of the term of the contract through to August 2030;
- the item Other mainly comprises the finance leases on autovehicles.

Investments consist of the acquisition of IRU transmission capacity (31 million euros) and incremental and improvement expenses incurred for leased property and non-property assets (38 million euros).

Increases in lease contracts include the higher value of the rights of use recorded as a result of new leases, increases of lease payments and renegotiations of agreements existing for both land and buildings for office use and industrial relationship over time, to infrastructure sites for the mobile telephone network infrastructure and network. They include the impacts associated with the specified exercise of the option of renewal of the MSA contract with INWIT S.p.A.
In accordance with IFRS 16 (Leases), lease liabilities are presented through the recognition of a financial liability in the statement of financial position at the present value of future lease payments, against the recognition of a rights-of-use asset of the leased asset.

Disposals represents the book value of the assets from property lease contracts (and related improvements) issued in advance, net of the value of the residual financial debt.

Other changes includes the transfers during the year and the changes related to the lower value of rights of use recorded as a result of contractual changes during the year, mainly for lease liabilities under IFRS16. The item also includes the already mentioned reclassification from Rights of use to Tangible assets in progress of the deposits in connection with the contract stipulated in 2020 with Telecom Italia Sparkle and relating to the BlueMed cable (approximately 8 million euros), consequent to a supplementary agreement signed as a mark of acceptance by TIM late 2022, which amended the contract signed in 2020 from sale of rights of use to sale of a pairing of dark fiber within the BlueMed underwater cable.

Amortization and **impairment losses** have been recorded in the income statement as components of EBIT.
The gross carrying amount, accumulated impairment losses and accumulated amortization at December 31, 2022 and December 31, 2021 can be summarized as follows:

(million euros)	12/31/2021 Gross carrying amount	Accumulated impairment losses	Accumulated amortization	Net carrying amount
Rights of use on intangible assets				
Rights of use Concessions, Licenses, Trademarks and Similar Rights	4		(1)	**3**
Work in progress and advance payments				**—**
	4	**—**	**(1)**	**3**
Rights of use on tangible assets				
Property	4,766	(13)	(2,306)	**2,447**
Plant and equipment	1,096		(338)	**758**
Equipment				**—**
Other	224		(147)	**77**
Assets in progress and advance payments	35			**35**
	6,121	**(13)**	**(2,791)**	**3,317**
Total	**6,125**	**(13)**	**(2,792)**	**3,320**

(million euros)	12/31/2022 Gross carrying amount	Accumulated impairment losses	Accumulated amortization	Net carrying amount
Rights of use on intangible assets				
Rights of use Concessions, Licenses, Trademarks and Similar Rights	4		(3)	**1**
Work in progress and advance payments				**—**
	4	—	(3)	**1**
Rights of use on tangible assets				
Property	4,895	(13)	(2,564)	**2,318**
Plant and equipment	1,233		(457)	**776**
Equipment				**—**
Other	200		(137)	**63**
Assets in progress and advance payments	30			**30**
	6,358	**(13)**	**(3,158)**	**3,187**
Total	**6,362**	**(13)**	**(3,161)**	3,188

With regard to the gross carrying amounts of rights of use of third party assets, in 2022 disposals were made for a total value of 85 million euros. The categories of assets most affected were: improvements in third party establishments (9 million euros), rented properties (34 million euros), base transceiver stations (16 million euros) and leased cars (25 million euros).

NOTE 7
INVESTMENTS

These decreased by 33 million euros compared to December 31, 2021 and included:

(million euros)	12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial Instruments*
Subsidiaries	10,709		10,990	
Associates and joint ventures	279	*—*	29	*—*
Other investments	33	*33*	35	*35*
Total	**11,021**	***33***	**11,054**	***35***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

As permitted by IFRS 9, TIM S.p.A. now measures all Other Investments at fair value through other comprehensive income (FVTOCI).

In 2022 the main transactions with subsidiaries, associates, joint ventures and other equity investments of TIM S.p.A. were the following:

- *Movenda S.p.A.*: on July 25, 2022, TIM S.p.A. acquired 100% of the company's share capital, which offers Digital Identity solutions. On September 29, 2022, the TIM S.p.A. Board of Directors and the Shareholders' Meeting of Movenda S.p.A. approved the draft merger by incorporation contract of Movenda S.p.A. into TIM S.p.A., with accounting and tax effect from July 1, 2022;
- *Daphne 3 S.p.A.*: on August 4, 2022, TIM S.p.A. transferred 41% of the share capital of the holding Daphne 3, which has a 30.2% investment in Infrastrutture Wireless Italiane ("INWIT") to a consortium of investors led by Ardian;
- *Polo Strategico Nazionale S.p.A.*: the company was established on August 4, 2022, it deals with the design, preparation, fitting out and management of infrastructure for the supply of cloud services and solutions for the public administration. TIM S.p.A. holds 45% of the Joint Venture's share capital.

Movements during 2022 for each investment and the corresponding amounts at the beginning and end of the year are reported below. The list of investments in subsidiaries, associates and joint ventures at December 31, 2022 is presented in compliance with Article 2427 of the Italian Civil Code and reported in the Note "List of investments in subsidiaries, associates and joint ventures".

Investments

(thousands of euros)	**Carrying amount at 12/31/2021**	Mergers/ demergers spin-offs of business units	Acquisitions/ Subscriptions/ Payments to cover Losses	Disposals/ Reimbursements	Impairment losses /Reversals /Adj. Fair value	Other changes and reclassifications	Total changes	**Carrying amount at 12/31/2022**
Investments in subsidiaries								
CD FIBER S.r.l.	43				—		—	43
FIBERCOP S.p.A.	2,965,311					300	300	2,965,611
DAPHNE 3 S.p.A.	296,314			(238,213)		(58,101)	(296,314)	—
OLIVETTI S.p.A. SOCIETA' BENEFIT	36,066				(3,047)	55	(2,992)	33,074
NOOVLE S.p.A. SOCIETA' BENEFIT	1,079,572					214	214	1,079,786
MOVENDA S.p.A.	—	(1,502)	1,502					—
TELECOM ITALIA CAPITAL S.A.	2,388						—	2,388
TELECOM ITALIA FINANCE S.A.	5,914,971						—	5,914,971
TELECOM ITALIA LATAM PARTICIPAÇÕES E GESTÃO ADMINISTRATIVA	—						—	—
TELECOM ITALIA SAN MARINO S.p.A.	7,565						—	7,565
TELECOM ITALIA SPARKLE S.p.A.	587,519					321	321	587,840
TELECOM ITALIA VENTURES S.r.l.	52,635		11,000				11,000	63,635
TELECONTACT CENTER S.p.A.	12,611					21	21	12,632
TELENERGIA S.r.l.	50						—	50
TELSY S.p.A.	19,522						—	19,522
TI AUDIT COMPLIANCE LATAM (in liquidation) S.A.	181						—	181
TIM BRASIL SERVIÇOS E PARTICIPAÇÕES S.A.	—						—	—
TIM RETAIL S.r.l.	15,143						—	15,143
TIM MY BROKER S.r.l.	10						—	10
TIM SERVIZI DIGITALI S.p.A.	—		18,500		(12,416)		6,084	6,084
	10,989,901	**(1,502)**	**31,002**	**(238,213)**	**(15,463)**	**(57,190)**	**(281,366)**	**10,708,535**

(thousands of euros)	**Carrying amount at 12/31/2021**	Mergers/ demergers spin-offs of business units	Acquisitions/ Subscriptions/ Payments to cover Losses	Disposals/ Reimbursements	Impairment losses /Reversals /Adj. Fair value	Other changes and reclassifications	Total changes	**Carrying amount at 12/31/2022**
Investments in associates and joint ventures								
AREE URBANE (in liquidation)	—						—	—
ITALTEL S.p.A.	—		10,262				10,262	10,262
DAPHNE 3 S.p.A.						234,247	234,247	234,247
NORDCOM S.p.A.	2,143						—	2,143
POLO STRATEGICO NAZIONALE S.P.A.			5,400				5,400	5,400
TIGLIO I	—						—	—
TIGLIO II (in liquidation)	—						—	—
TIMFin S.p.A.	26,950						—	26,950
Consorzio EO (in liquidation)	—						—	—
	29,093	**—**	**15,662**	**—**	**—**	**234,247**	**249,909**	**279,002**

(thousands of euros)	**Carrying amount at 12/31/2021**	Mergers/ demergers spin-offs of business units	Acquisitions/ Subscriptions/ Payments to cover Losses	Disposals/ Reimbursements	Impairment losses /Reversals /Adj. Fair value	Other changes and reclassifications	Total changes	**Carrying amount at 12/31/2022**
Investments in other companies								
BANCA UBAE	2,035				15		15	2,050
FIN. PRIV.(**)	22,446				(2,053)		(2,053)	20,393
IST. ENCICLOPEDIA ITALIANA G. TRECCANI	4,200				74		74	4,274
ISTITUTO EUROPEO DI ONCOLOGIA	2,743				46		46	2,789
Other minor investments	3,514	—	—	—	(63)	(1)	(64)	3,450
	34,938	**—**	**—**	**—**	**(1,981)**	**(1)**	**(1,982)**	**32,956**
Total Investments	**11,053,932**	**(1,502)**	**46,664**	**(238,213)**	**(17,444)**	**177,056**	**(33,439)**	**11,020,493**

(**) Recognized investment measured at fair value through other comprehensive income (FVTOCI).

NOTE 8

NON-CURRENT AND CURRENT FINANCIAL ASSETS

Non-current and current financial assets were broken down as follows:

(million euros)		12/31/2022	12/31/2021
Non-current financial assets			
Financial receivables and other non-current financial assets			
Financial receivables from subsidiaries		2,228	2,520
Financial receivables from associates and joint ventures		—	—
Financial receivables from other related parties		—	—
Receivables from employees		36	36
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		396	366
Non-hedging derivatives		825	1,305
Other financial receivables		9	211
		3,494	**4,438**
Financial receivables for lease contracts		**8**	**11**
Total non-current financial assets	**(a)**	**3,502**	**4,449**
Securities other than investments, other financial receivables and other current financial assets			
Securities other than investments			
Measured at amortized cost (AC)		—	—
Measured at fair value through other comprehensive income (FVTOCI)		—	—
Measured at fair value through profit or loss (FVTPL)		—	—
		—	—
Financial receivables and other current financial assets			
Liquid assets with banks, financial institutions and post offices (with maturity over 3 months)		—	—
Receivables from employees		19	11
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		31	25
Non-hedging derivatives		59	68
Financial receivables from parent companies		—	—
Financial receivables from subsidiaries		357	5
Financial receivables from associates and joint ventures			—
Other short-term financial receivables		1	7
	(b)	**467**	**116**
Financial receivables for lease contracts	**(c)**	**45**	**39**
Cash and cash equivalents	**(d)**	**1,375**	**3,558**
Total current financial assets	**e=(b+c+d)**	**1,887**	**3,713**
Total non-current and current financial assets	**(f)=(a+e)**	**5,389**	**8,162**

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Financial receivables for lease contracts (current and non-current) amounted to 53 million euros (50 million euros at December 31, 2021) and included the following contractual relationships recognized in accordance with the financial method envisaged by IFRS 16:

- agreements for the sale of network infrastructure in IRU with deferred collection over time (42 million euros, 33 million euros at December 31, 2021) recognized using the financial method envisaged by IFRS 16 given the contractual term substantially close to the economic life of the asset;
- contracts for the lease of commercial products to customers, for an amount of 11 million euros (15 million euros at December 31, 2021). For the financial receivables for lease assets are offset by the financial debt for the corresponding leases payable.

Receivables from employees (current and non-current) amounted to 55 million euros (47 million euros at December 31, 2021) and included the remaining amount due on loans granted.

Hedging derivatives amounting to 427 million euros (391 million euros at December 31, 2021), consisted of:

- hedged items classified as non-current assets/liabilities of a financial nature (396 million euros), mainly pertaining to the mark-to-market spot valuation component of cash flow hedge derivative contracts (of which 151 million euros entered into with Telecom Italia Finance S.A.);
- hedged items classified as current assets/liabilities of a financial nature (31 million euros), relating to the accrued income component of cash flow hedges and fair value hedges.

Non-hedging derivatives amounted to 884 million euros (1,373 million euros at December 31, 2021) and included the asset value of transactions that TIM S.p.A. carries out on behalf of Group companies under centralized treasury arrangements. This item is offset by the corresponding item classified in financial liabilities.

The non-hedging derivatives consisted of:

- items classified under non-current financial assets (825 million euros), which refer to the mark-to-market spot valuation component of the non-hedging derivatives;
- items classified as current financial assets (59 million euros), relating to the accrued income component on non-hedging derivative contracts.

Further details are provided in the Note "Derivatives".

Cash and cash equivalents amounted to 1,375 million euros, down by 2,183 million euros compared to December 31, 2021 and were broken down as follows:

(million euros)	12/31/2022	12/31/2021
Liquid assets with banks, financial institutions and post offices	1,157	3,532
Checks, cash and other receivables and deposits for cash flexibility	—	—
Receivables from subsidiaries	218	26
Total	**1,375**	**3,558**

The different technical forms of investing available cash can be analyzed as follows:

- maturities: investments have a maximum maturity of three months;
- counterparty risk: investments are made with leading banking and financial institutions with high credit quality and with a rating of at least BBB- according to Standard & Poor's or similar rating agencies;
- Country risk: deposits have been made mainly in major European financial markets.

NOTE 9

MISCELLANEOUS RECEIVABLES AND OTHER NON-CURRENT ASSETS

Miscellaneous receivables and other non-current assets breaks down as follows:

(million euros)		12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial Instruments*
Miscellaneous receivables (non-current)					
Miscellaneous receivables from subsidiaries		156	—	104	—
Miscellaneous receivables from associates		—	—	—	—
Other receivables		42	*11*	53	*21*
	(a)	**198**	***11***	**157**	***21***
Other non-current assets					
Deferred contract costs		1,627	—	1,787	
Other deferred costs		53	—	30	
	(b)	**1,680**	**—**	**1,817**	**—**
Total	**(a+b)**	**1,878**	***11***	**1,974**	***21***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Miscellaneous receivables (non-current)

The item includes receivables due from subsidiaries for 156 million euros (104 million euros at December 31, 2021) relating to tax consolidation receivables; it also includes receivables for 31 million euros due from the tax authority for income tax (31 million at December 31, 2021).

Other non-current assets

This item decreased by 137 million euros compared to December 31, 2021 and includes:

- **Contract costs deferred** for 1,627 million euros (1,787 million euros at December 31, 2021), mainly related to the deferral of costs connected to the activation and acquisitions of new contracts with customers. Contractual costs (mainly technical activation costs and commissions for the sales network) were deferred and charged to the separate income statements according to the expected duration of the contractual relationship with customers (on average around 4 years for the mobile business and around 8 years for the fixed-line business).

  Total deferred non-current and current contract costs amounted to 2,223 million euros (2,358 million euros at December 31, 2021); the breakdown of the total deferred non-current and current contract costs at December 31, 2022 is provided below, as well as the related changes in the period:

(million euros)	12/31/2022	12/31/2021
Deferred contract costs		
Non-current deferred contract costs	1,627	1,787
Current deferred contract costs	596	571
Total	**2,223**	**2,358**

(million euros)	12/31/2021	Increase	Release to income statement	Other changes	12/31/2022
Contract acquisition costs	**1,414**	381	(352)	(11)	1,432
Contract execution costs	**944**	64	(217)	—	791
Total deferred contract costs	**2,358**	**445**	**(569)**	**(11)**	**2,223**

Total deferred contract costs will be recognized in the income statement of future years of the Company and in particular, for approximately 595 million euros, in 2023, based on the amount at December 31, 2022 without taking into account the new deferred portions. More specifically:

(million euros)	12/31/2022	Year of recognition in the income statement					
		2023	2024	2025	2026	2027	After 2027
Deferred contract costs							
Contract acquisition costs	1,432	382	323	255	179	124	169
Contract execution costs	791	213	187	151	107	72	61
Total	2,223	**595**	**510**	**406**	**286**	**196**	**230**

- **Other deferred costs** of 53 million euros (30 million euros at December 31, 2021) mainly refer to costs for leased assets.

NOTE 10

INCOME TAX EXPENSE (CURRENT AND DEFERRED)

Current income tax receivables

Non-current income tax receivables (classified as Miscellaneous receivables and other non-current assets) amounted to 31 million euros at December 31, 2022, which is unchanged compared to the previous year; they relate to non-assigned receivables for taxes and interest resulting from the recognized deductibility for IRES tax purposes of the IRAP tax calculated on labor costs, relating to years prior to 2012, following the entry into force of Italian Decree Law 16/2012.

Current tax receivables came to 34 million euros and were down 9 million euros on December 31, 2021 (43 million euros); they mainly include: receivables for tax paid abroad for 10 million euros, residual IRAP from previous years for 14 million euros, tax consolidation credit for 6 million euros, receivables for supplementary declarations submitted in 2022 for 2 million euros and other tax receivables.

Tax assets and deferred tax liabilities

The net balance is composed as follows:

(million euros)	12/31/2022	12/31/2021
Deferred tax assets	461	3,364
Deferred tax liabilities	—	—
Total	**461**	**3,364**

In the 2020 Financial Statements, TIM S.p.A. had benefited from the possibility of realigning the tax values to the greater value of the assets booked, specifically the value of goodwill of 23,051 million euros, as envisaged by Decree Law 104/2020, Art. 110, subsections 8 and 8 bis. Accordingly, this resulted, in exchange for payment of substitute tax in the amount of 3% of the realigned value (692 million euros), in the possibility to deduct the tax amortization of the realigned value of 23,051 million euros over 18 years, starting 2021. These deductions, which would have generated benefits in terms of IRES and IRAP, have been fully noted at December 31, 2020 amongst deferred tax assets in the amount of 6,569 million euros, in view of the possibility of absorption through the Company's future taxable income, also taking into account the fact that IRES losses can be carried forward without time limits, where such may arise due to temporary incapacity of taxable income.

During 2022, TIM S.p.A. revoked the realignment of goodwill in accordance with Article 1, subsections 624 and 624-bis of Italian Law no. 234 of December 30, 2021, by means of the submission of the supplementary declaration for the 2020 tax period; this has, amongst others, entailed a write-off of the residual IRES deferred tax assets on the value of goodwill for 2,656 million euros. The 2021 financial statements, in addition to the use of 131 million for annual amortization, also included the write-off of 50% of the IRES deferred tax assets on the value of goodwill for 2,766 million euros and all IRAP deferred tax for 1,059 million euros as a consequence of the changes introduced by the 2022 Budget Law (Law 234/2021, Art. 160) to the duration of the period during which amortization of tax-recognized goodwill could be deducted (taking it from 18 to 50 years) and the assessment of the recoverability for IRAP purposes.

The 2022 financial statements do not include IRES deferred tax for period tax losses (as had been done in the previous financial statements) and those of previous years, in consideration of the changed assessment of the time frame for recoverability of deferred tax assets of TIM S.p.A., also determined on the basis of the 2023-2025 Industrial Plan.

The presentation of deferred tax assets and liabilities in the financial statements takes account of offsets to the extent that such offsets are legally permitted. The composition of the gross amounts prior to offsetting is presented below:

(million euros)	12/31/2022	12/31/2021
Deferred tax assets	495	3,445
Deferred tax liabilities	(34)	(81)
Total	**461**	**3,364**

The temporary differences which made up this line item at December 31, 2022 and 2021, as well as the movements during 2022 were as follows:

(million euros)	12/31/2021	Recognized in profit or loss	Recognized in equity	Other changes	12/31/2022
Deferred tax assets:					
Provisions for pension fund integration Law 58/92	4				4
Provisions	240	(29)			211
Provision for bad debts	87	(5)			82
Financial instruments	299		(226)		73
Taxed depreciation and amortization	90	5			95
Discounting of provision for employee severance indemnities	28	(7)	(16)		5
Tax losses (*)	7	(7)			—
Tax realignment pursuant to Decree Law 104/2020 Art. 110	2,656	(2,656)			—
Other deferred tax assets	34	(9)			25
Total	**3,445**	**(2,708)**	**(242)**	**—**	**495**
Deferred tax liabilities:					
Accelerated depreciation	(3)				(3)
Convertible Bonds	(45)	45			—
Financial instruments	(2)	2			—
Bond issue expense	(3)				(3)
Other deferred tax liabilities	(28)				(28)
Total	**(81)**	**47**	**—**	**—**	**(34)**
Total Deferred tax assets net of Deferred tax liabilities	**3,364**	**(2,661)**	**(242)**	**—**	**461**

(*) For the new flow of tax losses in 2022, no deferred tax assets are entered

The expirations of deferred tax assets and deferred tax liabilities at December 31, 2022 were the following:

(million euros)	Within next year	Beyond 1 year year	Total as at 31/12/2022
Deferred tax assets	207	288	495
Deferred tax liabilities	(6)	(28)	(34)
Total Deferred tax assets net of Deferred tax liabilities	**201**	**260**	**461**

The company has not posted deferred IRES tax assets for 420 million on tax losses and benefits for Aid to economic growth (ACE) and IRAP for 32 million.

Income tax payables

Following the specified revocation of the realignment of goodwill in accordance with Article 1, subsections 624 and 624-bis of Italian Law no. 234 of December 30, 2021, **current tax payables** at December 31, 2022 have been zeroed (231 million euros at December 31, 2021) for the reversal of the second installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, subsections 8 and 8 bis; **non-current tax payables** have also been zeroed (231 million euros at December 31, 2021) for the reversal of the third installment of substitute tax pursuant to Decree Law 104/2020, Art. 110, subsections 8 and 8 bis.

Income tax expense

The **income tax expense** for the years ended December 31, 2022 and 2021 is detailed below:

(million euros)	2022	2021
IRAP taxes for current year	—	—
IRES taxes for current year	—	—
Substitute tax pursuant to Decree Law 104/2020 art. 110	(692)	—
Expenses/(income) from tax consolidation	(144)	(100)
Current taxes of prior years	17	(4)
Total current taxes	**(819)**	**(104)**
Deferred taxes for the year	6	3
Tax realignment pursuant to Decree Law 104/2020 Art. 110 and write-off of deferred tax assets	2,656	3,825
Deferred taxes of prior years	—	(6)
Total deferred taxes	**2,662**	**3,822**
Total income tax expense for the year	**1,843**	**3,718**

The current IRES tax rate is 24%, while the effective IRAP tax rate is 4.5%.

The current tax income consists of 144 million euros for the tax consolidation benefit, 692 million euros for the benefit deriving from the reversal of substitute tax on the realignment of goodwill (Art. 110, subsections 8 and 8 bis of Decree Law 104/2020) deriving from the revocation of the latter, in accordance with Article 1, subsections 624 and 624-bis, of Italian Law no. 234 of December 30, 2021, as well as the impact of 17 million euros for greater tax from previous years, relating to the effects on the tax return with respect to the forecasts prepared in the 2020 financial statements on the basis of the information available at the time.

The current tax benefits juxtaposes with the deferred tax expense of 2,662 million euros, mainly due to the write-off of deferred IRES tax (2,656 million euros), equal to the residual amount of the deferred tax assets entered in 2020 following the tax recognition of higher values of goodwill booked in accordance with Decree Law 104/2020, Art. 110, subsections 8 and 8 bis.

The reconciliation between the theoretical tax charge, calculated on the basis of the IRES tax rate in effect at December 31, 2022 (24%), and the effective tax charge in the financial statements is as follows:

(million euros)	2022	2021
Result before tax		
From continuing operations	(1,234)	(4,596)
Total profit (loss) before tax	**(1,234)**	**(4,596)**
Theoretical income tax expense	**(296)**	**(1,103)**
Income tax effect on increases (decreases) in variations:		
dividends recognized in income	(25)	(194)
impairment losses, gains and losses on investments	(69)	24
non-deductible depreciation, amortization and impairments	2	991
non-deductible costs	9	6
other items (accelerated depreciation and amortization, etc.)	(20)	(15)
IRES taxes for previous years	—	(8)
Prepaid IRES tax benefit/write-off pursuant to Decree Law 104/2020, Art. 110	2,656	2,766
Suspension of period tax losses (failure to enter deferred tax)	263	195
Effective income tax recognized in income statement, excluding IRAP and substitute	**2,520**	**2,662**
IRAP (Regional Tax on Production Activities)	15	(3)
Prepaid IRAP tax benefit/write-off pursuant to Decree Law 104/2020, Art. 110 and others	—	1,059
Write-off of substitute tax pursuant to Decree Law 104/2020 art. 110	(692)	—
Total of actual taxes to income statement	**1,843**	**3,718**

For a better understanding of the above reconciliation, the impacts of Regional Income Tax (IRAP) and substitute tax pursuant to Law Decree 104/2020, Art. 110, have been shown separately so as to avoid any distorting effect arising from the fact that these taxes are calculated on a different tax base to the pre-tax profit.

NOTE 11
INVENTORIES

At December 31, 2022, these amounted to 193 million euros (165 million euros at December 31, 2021) and mainly consisted of fixed and mobile telecommunications equipment and terminals and the related accessories.

This item increased by 28 million euros compared with December 31, 2021, and was mainly attributable to a trend seeing lesser consumption on the Mobile segment, particularly during the last quarter of the year.

In 2022, write-downs of inventories amounted to around 3 million euros.

No inventories are pledged as collateral.

NOTE 12
TRADE AND MISCELLANEOUS RECEIVABLES AND OTHER CURRENT ASSETS

Trade and miscellaneous receivables and other current assets at December 31, 2022 breaks down as follows:

(million euros)		12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial*
Trade receivables					
Receivables from customers		685	*685*	824	*824*
Receivables from other telecommunications operators		1,178	*1,178*	1,044	*1,044*
Receivables from subsidiaries		860	*860*	658	*658*
Receivables from associates and joint ventures		21	*21*	13	*13*
Receivables from other related parties		27	*27*	20	*20*
Customer collections pending credit		5	*5*	5	*5*
	(a)	**2,776**	***2,776***	**2,564**	***2,564***
Miscellaneous receivables (current)					
Receivables from subsidiaries		108	—	5	—
Receivables from associates and joint ventures		—	—	2	—
Receivables from other related parties		—	—	—	—
Other receivables		471	*82*	462	*77*
	(b)	**579**	***82***	**469**	***77***
Other current assets					
Contract assets		14	*14*	17	*17*
Deferred contract costs		596	—	571	
Other deferred costs		272	—	231	
Other		56	—	79	—
	(c)	**938**	***14***	**898**	***17***
Total	**(a+b+c)**	**4,293**	***2,872***	**3,931**	***2,658***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

The analyses of the aging of the financial instruments included in Trade and miscellaneous receivables and other current assets at December 31, 2022 and December 31, 2021 are provided below:

(million euros)	12/31/2022	of which non-overdue	of which overdue	*Overdue:* 0-90 days	91-180 days	181-365 days	More than 365 days
Trade and miscellaneous receivables and other current assets	**2,872**	2,515	357	65	61	48	183

(million euros)	12/31/2021	of which non-overdue	of which overdue	*Overdue:* 0-90 days	91-180 days	181-365 days	More than 365 days
Trade and miscellaneous receivables and other current assets	**2,658**	2,292	366	95	51	39	181

Financial instruments included in trade and miscellaneous receivables and other current assets include Assets deriving from contracts with customers (Contract Assets) for 14 million euros; they increased by 214 million euros compared to December 31, 2021. In particular:

- **current net receivables**: increased by 223 million euros mainly due to the impact - starting 2021 - of transactions with FiberCop and Noovle.
- **overdue net receivables**: decreased by 9 million euros following the reduction recorded in the 0 to 90 days aging bracket as a result of the dynamics in wholesale and roaming; in the other brackets, the reduction of stock of subscribing customers - in particular for aging in excess of 365 days - is neutralized by the increase in receivables in wholesale and for sundry billing.

Trade receivables

These came to 2,776 million euros (2,564 million euros at December 31, 2021) and were net of the related provision for bad debts of 365 million euros (420 million euros at December 31, 2021); in particular, the provision for bad debt at December 31, 2022 was impacted by the provisions made in 2022 for a total of 57 million euros.

Movements in the provision for bad debts were as follows:

(million euros)	12/31/2022	12/31/2021
At January 1	**420**	**496**
Provision charges to the income statement	57	124
Draw downs and other changes	(112)	(200)
At December 31	**365**	**420**

Trade receivables decreased by 212 million euros compared to December 31, 2021, mainly as a result of the changes in the receivables due from customers and subsidiaries.

In particular, we report:

- Receivables from customers: amounted to 685 million euros and dropped by 139 million euros compared to December 31, 2021;
- Receivables from other operators: amounted to 1,178 million euros and increased by 134 million euros compared to December 31, 2021;
- receivables from subsidiaries: amounted to 860 million euros and increased by 202 million euros compared to December 31, 2021, mainly following greater receivables due from FiberCop for delivery activities on the secondary network (640 million euros); there are also greater receivables due for the supply of TLC products and services to Noovle S.p.A. Società Benefit (133 million euros), TIM Retail (23 million euros), Telecom Italia Sparkle (20 million euros), TIM S.A. (16 million euros), Telenergia (9 million euros), Olivetti S.p.A. Società Benefit (5 million euros) and Telecontact (4 million euros);
- receivables from associates: amounted to 21 million euros (13 million euros at December 31, 2021) and mainly relate to the supply of services to Polo Strategico Nazionale S.p.A.;
- receivables from associates amounted to 27 million euros (20 million euros at December 31, 2021) and relate to the supply of services to the Cassa Depositi e Prestiti Group.

Miscellaneous receivables (current)

Amounted to 579 million euros (net of a provision for bad debts of 41 million euros), decreasing by 110 million euros compared to December 31, 2021. They include:

- **receivables from subsidiaries**: these amounted to 108 million euros (5 million euros at December 31, 2021) and mainly related to receivables from Group companies for the tax consolidation (103 million euros);
- **Other receivables**: totaled 471 million euros and break down as follows:

(million euros)	12/31/2022	12/31/2021
Advances to suppliers	272	256
Receivables from employees	8	8
Tax receivables	5	15
Receivables for grants from the government and public entities	11	14
Sundry receivables	175	169
Total	**471**	**462**

The tax receivables amounted to 5 million euros and are essentially represented by credit amounts resulting from tax returns and tax receivables.

Receivables for grants from the government and public entities (11 million euros) referred mainly to the Ultrabroadband-UBB and Broadband-BB projects. The grants are recognized to the income statement when the related plants become ready for use.

Sundry receivables mainly included:

- receivables for with-recourse assignments to factoring companies (26 million euros);
- receivables from social security and pension institutions (17 million euros);
- miscellaneous receivables from other TLC operators (28 million euros);
- receivables for Universal Service (52 million euros).

Other current assets

This item amounted to 938 million euros and increased by 40 million euros compared to December 31, 2021; it included:

- **Assets resulting from contracts with customers - Contract Assets** (14 million euros, 17 million euros at December 31, 2021): these refer to the advance recognition of revenues for those bundle contracts (such as product and service packages) with the individual Performance Obligations with different timing for their recognition, in which goods recognized "at point in time" are sold at a discounted price, or for those contracts which, envisaging a discount for a period of time less than the minimum contract duration, pursuant to IFRS 15 need the discount to be reallocated over the minimum contract duration. Contract Assets - net of the related write-down provision of 1 million euros - are down by 3 million euros compared to December 31, 2021, since the reversal to the income statement of the previously accumulated balance was substantially offset by the need to distribute discounts granted to customers temporally over the minimum contractual term, with particular reference to those connected with the impact of COVID-19;
- **Deferred contract costs** (596 million euros, 571 million euros at December 31, 2021): contract costs (mainly technical setup fees and commissions to the sales network) are deferred and recognized in the separate income statements according to the expected duration of the contractual relationship with customers (on average around 4 years for the mobile business and around 8 years for the fixed business). For additional details on the deferred contract costs and their movement during the year, refer to the Note "Miscellaneous receivables and other non-current assets";
- **Other deferred costs**: amounted to 272 million euros and mainly related to:
  - 216 million euros for the deferral of costs related to rental fees and other lease and rental costs;
  - 25 million euros for the deferral of costs for the purchase of products and services;
  - 12 million euros for the deferral of after-sales expenses on application offers;
  - 12 million euros for maintenance fees;
  - 7 million euros for insurance premiums.
- **Other** (56 million euros, 79 million euros at December 31, 2021): these include approximately 10 million euros in receivables for works from the subsidiary FiberCop.

NOTE 13
EQUITY

This item is composed as follows:

(million euros)	12/31/2022	12/31/2021
Share capital issued	**11,677**	**11,677**
less: Treasury shares	(63)	(63)
Share capital	**11,614**	**11,614**
Additional paid-in capital	**2,133**	**2,133**
Legal reserve	**2,335**	**2,335**
Other reserves:		
Merger surplus reserve	777	1,734
Other	470	(295)
Total other reserves	**1,247**	**1,439**
Retained earnings, including profit (loss) for the year	**(3,077)**	**(957)**
Total	**14,252**	**16,564**

Movements in share capital during 2022 are presented in the following tables:

Reconciliation between the number of shares outstanding at 12/31/2021 and at 12/31/2022

(number of shares)		As at 12/31/2021	Share assignment/ issue	As at 12/31/2022	% on Capital
Ordinary shares issued	(a)	15,329,466,496	—	15,329,466,496	71.78
less: treasury shares	(b)	(115,942,196)	—	(115,942,196)	
Ordinary shares outstanding	(c)	15,213,524,300	—	15,213,524,300	
Savings shares issued and outstanding	(d)	6,027,791,699	—	6,027,791,699	28.22
Total shares issued	**(a+d)**	**21,357,258,195**	**—**	**21,357,258,195**	**100.00**
Total shares outstanding	**(c+d)**	**21,241,315,999**	**—**	**21,241,315,999**	

Reconciliation between the value of shares outstanding at 12/31/2021 and at 12/31/2022

(thousands of euros)		Share Capital at 12/31/2021	Change share capital	Share Capital at 12/31/2022
Ordinary shares issued	(a)	8,381,330		8,381,330
less: treasury shares	(b)	(63,391)	—	(63,391)
Ordinary shares outstanding	(c)	8,317,939	—	8,317,939
Savings shares issued and outstanding	(d)	3,295,673		3,295,673
Total share capital issued	**(a+d)**	**11,677,003**	**—**	**11,677,003**
Total share capital outstanding	**(c+d)**	**11,613,612**	**—**	**11,613,612**

Disclosure on share capital

The ordinary and savings shares of TIM S.p.A. are listed in Italy (FTSE index).

In the shareholder resolutions passed to increase share capital against cash payments, the pre-emption right can be excluded to the maximum extent of ten percent of the pre-existing share capital, on condition that the issue price corresponds to the market price of the shares and that this is confirmed in a specific report issued by the firm charged with the audit of the Company.

The Company sources itself with the capital necessary to fund its requirements for business development and operations; the sources of funds are found in a balanced mix of equity, permanently invested by the shareholders, and debt capital, to guarantee a balanced financial structure and minimize the total cost of capital, with a resulting advantage to all the stakeholders.

Debt capital is structured according to different maturities and currencies to ensure an adequate diversification of the sources of funding and an efficient access to external sources of financing (taking advantage of the best opportunities offered in the financial markets of the euro, U.S. dollar and Pound sterling areas to minimize costs), taking care to reduce the refinancing risk.

The remuneration of equity is proposed by the Board of Directors to the Shareholders' Meeting, which meets to approve the annual financial statements, based upon market trends and business performance, once all the other obligations are met, including debt servicing. Therefore, in order to guarantee an adequate remuneration of capital, safeguard company continuity and business development, the Company constantly monitors the change in debt levels in relation to equity, the level of net debt and the operating margin of industrial operations.

Privileges of savings shares

The privileges of TIM S.p.A. savings shares are indicated below:

- the profit shown in the duly approved financial statements, after deducting the amount to be allocated to the legal reserve, must be distributed to the holders of savings shares in an amount up to 5% of the 0.55 euros per share;
- after assigning preferred dividends to the savings shares, the distribution of which is approved by the shareholders' meeting, the remaining profit shall be allocated among all the shares, so that savings shares are entitled to higher overall dividends than ordinary shares would be entitled to, to the extent of 2% of 0.55 euros per share;
- when, in any one year, dividends of below 5% of the 0.55 euros per share are paid to the savings shares, the difference is determined as an increase of the privileged dividend in the next two subsequent years;
- in the event of a distribution of reserves, the savings shares have the same rights as the other shares. Moreover, when there is no profit or insufficient profit is reported in the financial statements for a given year to satisfy the aforesaid savings shares privileges, the Shareholders' Meeting called to approve those financial statements may choose to satisfy the dividend right and/or the higher dividend right by distributing available reserves. The distribution of available reserves for such payments excludes the application of the mechanism extending the right to the preferred dividend not paid through the distribution of profits for the following two years;
- the reduction of share capital as a result of losses does not affect the savings shares except for the amount of the loss which is not covered by the portion of the share capital represented by the other shares;
- upon the wind-up of TIM S.p.A., the savings shares have a pre-emption right in the reimbursement of capital up to the amount of 0.55 euros per share;
- in the event of the cessation of trading in the Company's ordinary or savings shares, the holder of savings shares may ask TIM S.p.A. to convert his/her shares into ordinary shares, using the method selected during a special session of the shareholders' meeting called for that purpose within two months of being excluded from trading.

It should be noted that the share capital carries a restriction on tax suspension for fiscal purposes for an amount of 1,191 million euros (11,104 million euros at December 31, 2021), down 9,913 million euros following revocation of the realignment of goodwill in accordance with art. 1, subsections 624 and 624-bis of Law no. 234 of December 30, 2021 and the cessation of the corresponding restriction previously applied to the share capital.

Note that following the specified revocation of the realignment of goodwill, the corresponding restriction previously placed on the equity reserves under tax suspension for fiscal purposes in accordance with Decree Law 104/2020, Art. 110, subsection 8, was lifted.

Additional paid-in capital at December 31, 2022 amounted to 2,133 million euros, showing no change on December 31, 2021.

The **Legal reserve** at December 31, 2022, was 2,335 million euros, unchanged compared to December 31, 2021. The reserve carries a tax suspension restriction up to 1,835 million euros.

Other reserves totaled 1,247 million euros at December 31, 2022, increasing by 765 million euros compared to December 31, 2021.

The Other reserves moved through the Statements of Comprehensive Income are broken down as follows:

- Reserve for remeasurements of employee defined benefit plans (negative 65 million euros): the reserve increased by 52 million euros compared to December 31, 2021, following the recognition of employee severance indemnity actuarial gains for the year 2022, after the net income tax effect;
- Reserve for hedging instruments (negative 223 million euros, up 722 million euros compared to December 31, 2021): this reserve is related to the accounting of cash flow hedge transactions. In particular, it refers to unrealized gains and losses, net of the related tax effect, arising from the fair value adjustment of the financial instruments designated as cash flow hedges;
- Reserve for financial assets measured at fair value through other comprehensive income (negative for 2 million euros): this reserve decreased by 15 million euros compared to December 31, 2021.

The Other reserves also include:

- Merger surplus reserve (777 million euros): this reduced by 957 million euros on December 31, 2021 following coverage of the loss of 2021, as resolved by the Shareholders' Meeting on April 7, 2022;
- Reserve for other equity instruments: this reserve amounted to 18 million euros (down by 147 million euros compared to December 31, 2021) and consisted of:
  - one million euros, the amount of the 2022-2024 Stock Option Plan approved by the Shareholders' Meeting on April 7, 2022;
  - 17 million euros, the amount of the 2020-2022 Long Term Incentive Plan, approved by the Shareholders' Meeting on April 23, 2020.

  For further details, refer to the Note “Equity Compensation Plans”.
- Miscellaneous reserves (742 million euros, 589 million as at December 31, 2021); this includes the reserve pursuant to Article 7, subsection 7 of Italian Legislative Decree 38/2005, (521 million euros), which has now become fully available.

Retained earnings (accumulated losses), including result for the year, was negative for 3,077 million euros at December 31, 2022 (negative for 957 million euros at December 31, 2021) and refer to the 2022 loss.

The following statement provides additional disclosure on equity and is prepared pursuant to Article 2427, number 7-bis, showing the items in equity separately according to their source, possibility of utilization and distribution, in addition to their utilization in the three-year period 2020-2022.

Summary pursuant to Article 2427, no. 7-bis

Nature/description (million euros)	Amount at 12/31/2022	Potential utilization	Amount available	Summary of utilizations made in the three-year period 2020-2022 for loss coverage	for other reasons
Share capital	**11,614**				
Capital reserves:					
Additional Paid-in capital	2,134	A,B,C	2,134		
Legal reserve	1,953	B			
Reserve for other equity instruments	18	B			
Other reserves	735	A,B,C	735		
Reserve for remeasurements of defined benefit plans	57	A,B,C	57		
Merger surplus reserve	777	A,B,C	777		
Profit reserves:					
Additional Paid-in capital	(1)		(1)		
Legal reserve	382	B			
Other reserves	9	A,B,C	9	—	1
Reserve for hedging instruments and related underlying instruments	(223)		—		
Reserve for available-for-sale financial assets	(2)	B			
Reserve for remeasurements of defined benefit plans	(122)		(122)		
Total	**17,331**		**3,589**	**—**	**1**
Treasury shares			(65)		
Residual distributable percentage			**3,524**		

Key:
A = for increases in capital;
B = for loss coverage;
C = for distribution to shareholders

Specifically, the amounts shown in the column "Summary of the amounts utilized in the three-year period 2020/2022 – for other reasons" relate to the distribution of dividends.

The table below shows the restrictions, pursuant to Article 109, subsection 4, letter b) of TUIR, relating to off-book deductions effected for income tax purposes in past years:

(million euros)

Off-book deductions at 12/31/2021	**19**
Reversal for taxation during the year	(1)
Off-book deductions at 12/31/2022	**18**
Deferred taxes	(4)
Restriction on equity at 12/31/2022	**14**

This regime imposes a restriction on all equity reserves, without distinction, for an amount equal to the off-book deductions net of the related deferred taxes. This restriction remains until such time as the excess tax deductions and consequent taxation are recovered in the books.

More specifically, compared with the situation at December 31, 2021, deductions remain essentially unchanged.

Therefore, taking into account the residual deductions effected in prior years and not covered by the fiscal realignment carried out in accordance with Italian Law 244 dated December 24, 2007, the total restriction on equity in the financial statements amounts to 14 million euros.

Future potential changes in share capital

The table below shows future potential changes in share capital, based on the long-term share incentive plans, still outstanding at December 31, 2022:

	Number of maximum shares issuable	**Share capital** (thousands of euros)	**Additional paid-in capital** (thousands of euros)	**Subscription price per share** (euros)
Capital increases already approved (ordinary shares)				
2020-2022 Long Term Incentive Plan (free issue)	180,000,000			
2022-2024 Stock Options Plan	257,763,000	109,292		0.424
Total	**437,763,000**	**109,292**		

Further information is provided in the Notes "Non-current and current financial liabilities" and "Equity compensation plans".

NOTE 14
NON-CURRENT AND CURRENT FINANCIAL LIABILITIES

Non-current and current financial liabilities (gross financial debt) are broken down as follows:

(million euros)		12/31/2022	12/31/2021
Non-current financial liabilities for financing contracts and others			
Non-current financial payables:			
Bonds		10,118	12,506
Convertible bonds		—	—
Amounts due to banks		4,043	2,627
Payables to other lenders		9	25
Payables due to subsidiaries		3,516	4,078
		17,686	**19,236**
Other non-current financial liabilities:			
Hedging derivatives relating to hedged items classified as non-current assets/liabilities of a financial nature		234	1,337
Non-hedging derivatives		859	1,303
Other liabilities		—	1
		1,093	**2,641**
	(a)	**18,779**	**21,877**
Non-current financial liabilities for lease contracts			
Payables to subsidiaries		25	29
Payables to associates		—	268
Payables to third parties		2,575	2,446
	(b)	**2,600**	**2,743**
Total non-current financial liabilities	**c=(a+b)**	**21,379**	**24,620**
Current financial liabilities for financing contracts and others			
Current financial payables:			
Bonds		2,668	1,386
Convertible bonds		—	1,998
Amounts due to banks		716	900
Payables to other lenders		181	225
Payables due to subsidiaries		1,871	429
Payables to associates		—	1
		5,436	**4,939**
Other current financial liabilities:			
Hedging derivatives relating to hedged items classified as current assets/liabilities of a financial nature		177	54
Non-hedging derivatives		77	52
Other liabilities		—	—
		254	**106**
	(d)	**5,690**	**5,045**
Current financial liabilities for lease contracts			
Payables to subsidiaries		28	6
Payables to associates		—	73
Payables to third parties		431	355
	(e)	**459**	**434**
Total Current financial liabilities	**f=(d+e)**	**6,149**	**5,479**
Total financial liabilities (Gross Financial Debt)	**g=(c+f)**	**27,528**	**30,099**

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Gross financial debt according to the original currency of the transaction is as follows:

	12/31/2022 (millions of foreign currency)	12/31/2022 (million euros)	12/31/2021 (millions of foreign currency)	12/31/2021 (million euros)
USD	2,514	2,357	2,508	2,215
GBP	389	438	389	463
YEN	20,000	142	20,031	154
EUR		24,591		27,267
		27,528		**30,099**

The breakdown of gross financial debt by effective interest-rate bands applicable to the original transaction is provided below, excluding the effect of any derivative hedging instruments:

(million euros)	12/31/2022	12/31/2021
Up to 2.5%	5,574	7,692
From 2.5% to 5%	14,870	13,236
From 5% to 7.5%	3,573	4,196
From 7.5% to 10%	1,725	1,727
Over 10%	3	4
Accruals/deferrals, MTM and derivatives	1,783	3,244
	27,528	**30,099**

Following the use of hedging instruments, on the other hand, gross financial debt by nominal interest rate level is:

(million euros)	12/31/2022	12/31/2021
Up to 2.5%	5,832	10,443
From 2.5% to 5%	13,261	10,334
From 5% to 7.5%	4,924	4,347
From 7.5% to 10%	1,725	1,727
Over 10%	3	4
Accruals/deferrals, MTM and derivatives	1,783	3,244
	27,528	**30,099**

The maturities of financial liabilities according to the expected nominal repayment amount, as defined by contract, are the following:

Details of the maturities of financial liabilities – at nominal repayment amount:

(million euros)	maturing by 12/31 of the year: 2023	2024	2025	2026	2027	After 2027	Total
Bonds	2,423	3,406	2,000	1,750	1,250	1,670	12,499
Loans and other financial liabilities	1,340	766	1,370	719	697	4,442	9,334
Finance lease liabilities	404	375	365	364	333	1,164	3,005
Total	**4,167**	**4,547**	**3,735**	**2,833**	**2,280**	**7,276**	**24,838**
Current financial liabilities	1,505	—	—	—	—	—	1,505
Total	**5,672**	**4,547**	**3,735**	**2,833**	**2,280**	**7,276**	**26,343**

The main components of financial liabilities are commented below.

Bonds are broken down as follows:

(million euros)	12/31/2022	12/31/2021
Non-current portion	10,118	12,506
Current portion	2,668	1,386
Total carrying amount	**12,786**	**13,892**
Fair value adjustment and measurement at amortized cost	(287)	(354)
Total nominal repayment amount	**12,499**	**13,538**

The nominal repayment amount of bonds totaled 12,499 million euros, down by 3,039 million euros compared to December 31, 2021 (15,538 million euros) as a result of repayments made in 2022.

The change in bonds during 2022 was as follows:

Repayments

(millions of original currency)	Currency	Amount	Repayment date
Repayments			
Telecom Italia S.p.A 2002-2022 reserved for subscription by employees	Euro	214	1/1/2022
Telecom Italia S.p.A. 1,250 million euros 5.25% [1]	Euro	884	2/10/2022
Telecom Italia S.p.A. 2,000 million euros 1.125% Convertible bond	Euro	2,000	3/26/2022

(1) Net of buy-backs totaling 366 million euros made by the company in 2015.

The following table lists the bonds issued by TIM S.p.A., expressed at the nominal repayment amount, net of bond buy-backs, and also at market value:

Currency	Total (millions)	Nominal repayment amount (million euros)	Coupon	Issue date	Maturity date	Issue price (%)	Market price at 12/31/2022 (%)	Market value at 12/31/2022 (million euros)
Bonds issued by TIM S.p.A.								
Euro	1,000	1,000	3.250%	1/16/2015	1/16/2023	99.446	99.915	999
GBP	375	423	5.875%	5/19/2006	5/19/2023	99.622	99.331	420
Euro	1,000	1,000	2.500%	1/19/2017	7/19/2023	99.288	98.668	987
Euro	750	750	3.625%	1/20/2016	1/19/2024	99.632	97.978	735
Euro	1,250	1,250	4.000%	1/11/2019	4/11/2024	99.436	97.690	1,221
USD	1,500	1,406	5.303%	5/30/2014	5/30/2024	100	94.785	1,333
Euro	1,000	1,000	2.750%	4/15/2019	4/15/2025	99.320	95.816	958
Euro	1,000	1,000	3.000%	9/30/2016	9/30/2025	99.806	93.064	931
Euro	750	750	2.875%	6/28/2018	1/28/2026	100	91.261	684
Euro	1,000	1,000	3.625%	5/25/2016	5/25/2026	100	93.595	936
Euro	1,250	1,250	2.375%	10/12/2017	10/12/2027	99.185	84.352	1,054
Euro	1,000	1,000	1.625%	1/18/2021	1/18/2029	99.074	76.481	765
Euro	670	670	5.250%	3/17/2005	3/17/2055	99.667	74.328	498
Total		**12,499**						**11,521**

The regulations and/or Offering Circulars relating to the bonds described above are available on the corporate website at the address: gruppotim.it.

Non-current **payables to banks** totaled 4,043 million euros (2,627 million euros at December 31, 2021). On July 6, 2022, TIM stipulated a loan with a pool of leading international banks, which benefits from the "Italy Guarantee" (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020 as subsequently amended and supplemented) for an amount of 2 billion euros. Short-term payables to banks totaled 716 million euros, down by 184 million euros (900 million euros at December 31, 2021) and included 615 million euros of the current portion of non-current amounts due to banks.

Non-current **payables to other lenders** totaled 9 million euros (25 million euros at December 31, 2021), while current payables to other lenders totaled 181 million euros (225 million euros at December 31, 2021) and included 6 million euros representing the current portion of non-current payables to other lenders.

Non-current **payables to subsidiaries** amounted to 3,516 million euros (4,078 million euros at December 31, 2021) and consisted of loans obtained from Telecom Italia Capital S.A. (2,374 million euros) and from Telecom Italia Finance S.A. (1,142 million euros), following the issues of bonds placed by the financial companies of the Group on the United States and Luxembourg markets.

Current payables to subsidiaries amounted to 1,871 million euros and increased by 1,442 million euros compared to December 31, 2021 (429 million euros). They include:

- the current portion of medium/long-term loans to Telecom Italia Capital S.A. (627 million euros);
- short-term loans to Telecom Italia Capital S.A. (192 million euros) and Telecom Italia Finance S.A. (751 million euros);
- current accounts as part of the treasury services regulated at market rates for a total of 1,016 million euros, particularly with Telecom Italia Ventures (63 million euros), Telecom Italia Sparkle S.p.A. (56 million euros), TIM Retail S.r.l. (56 million euros), Telecontact Center S.p.A. (43 million euros), Olivetti S.p.A. (22 million euros).

Non-current financial liabilities for lease contracts amounted to 2,600 million euros (2,743 million euros at December 31, 2021). Current financial liabilities for lease contracts amounted to 459 million euros (434 million euros at December 31, 2021) and referred for 435 million euros to the current portion of non-current financial liabilities for lease contracts.
With reference to the finance lease liabilities recognized in 2022 and 2021 the following is noted:

(million euros)	12/31/2022	12/31/2021
Principal reimbursements	391	407
Cash out interest portion	119	127
Total	**510**	**534**

Hedging derivatives relating to items classified as non-current liabilities of a financial nature amount to 234 million euros (1,337 million euros at December 31, 2021). Hedging derivatives relating to hedged items classified as current financial liabilities amounted to 177 million euros (54 million euros at December 31, 2021).

Non-current **non-hedging derivatives** amounted to 859 million euros (1,303 million euros at December 31, 2021). Current non-hedging derivatives amounted to 77 million euros (52 million euros at December 31, 2021).

These line items include the measurement in the liabilities of transactions which TIM S.p.A. carries out with banking counterparties to service the companies of the Group in its exclusive role as the centralized treasury function (cash pooling), and are offset in full by the corresponding items classified as financial assets. In addition, there are also IRS derivatives of 26 million euros belonging to fair value hedges of bond loans in euros, discontinued in 2021.
Further details are provided in the Note "Derivatives".

Covenants, negative pledges and other contract clauses in effect at December 31, 2022

Bonds issued by TIM S.p.A., Telecom Italia Finance S.A. and Telecom Italia Capital S.A. do not contain financial covenants (e.g. ratios such as Debt/EBITDA, EBITDA/Interest, etc.) or clauses that result in the automatic early redemption of the bonds in relation to events other than the insolvency of the TIM Group; furthermore, the repayment of the bonds and the payment of interest are not covered by specific guarantees nor are there commitments provided relating to the assumption of future guarantees, except for the full and unconditional guarantees provided by TIM S.p.A. for the bonds issued by Telecom Italia Finance S.A. and Telecom Italia Capital S.A..
Since these bonds have been placed principally with institutional investors in main world capital markets (Euromarket and USA), the terms which regulate the bonds are in line with the market practice for similar transactions effected on these same markets.

Regarding loans taken out by TIM from the European Investment Bank (EIB), on May 19, 2021, TIM entered into a new loan for an amount of 230 million euros, in support of projects to digitize the country. In addition, on that same date, it extended the loan signed in 2019 (for an initial amount of 350 million euros) for an additional amount of 120 million euros.

Therefore, at December 31, 2022 the nominal total of outstanding loans with the EIB was 700 million euros, all drawn down and not backed by bank guarantee.

The two EIB loans signed on November 25, 2019 and May 19, 2021 contain the following covenants:

- in the event the company becomes the target of a merger, demerger or conferral of a business segment outside the TIM Group, or sells, disposes of or transfers assets or business segments (except in certain cases, expressly provided for), it shall immediately inform the EIB which shall have the right to ask for guarantees to be provided or changes to be made to the loan contract, or, only for certain loan agreements, the EIB shall have the option to demand the immediate repayment of the loan (should the merger, demerger or contribution of a business segment outside the TIM Group compromise the Project execution or cause a prejudice to EIB in its capacity as creditor);
- TIM undertook to ensure that, for the entire duration of the loan, the total financial debt of the TIM Group companies other than TIM – except for the cases when that debt is fully and irrevocably secured by TIM – is lower than 35% (thirty-five percent) of the TIM Group's total financial debt;
- “Inclusion clause", under which, in the event TIM commits to uphold financial covenants in other loan contracts (and even more restrictive clauses, including, for instance, cross default clauses and commitments restricting the sale of goods) that are not present in or are stricter than those granted to the EIB, the EIB will have the right – if, in its reasonable opinion, it considers that such changes may have a negative impact on TIM's financial capacity – to request the provision of guarantees or an amendment of the loan contract in order to establish an equivalent provision in favor of the EIB;
- "Network Event", under which, in the event of the disposal of the entire fixed network or of a substantial part of it (in any case, more than half in quantitative terms) to third parties not controlled by the Company, or in the event of disposal of the controlling interest in the company in which the network or a substantial part of it has previously been transferred, TIM must immediately inform the EIB, which may then opt to demand collateral or an amendment of the loan agreement or choose an alternative solution.

The TIM loan agreements do not contain any financial covenants (e.g. Debt/EBITDA, EBITDA/interest ratios, etc.), failure to comply with which would entail an obligation to repay the loan in place, with the exception of the loan signed on July 6, 2022, which is backed by the “Italy Guarantee” (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020, as subsequently amended and supplemented).

The loan agreements contain the usual other types of covenants, including the commitment not to pledge the Company’s assets as collateral for loans (negative pledge) and the commitment not to change the business purpose or sell the assets of the Company unless specific conditions exist (e.g. the sale takes place at fair market value). Covenants with basically the same content can be found in the export credit loan agreement.

In the loan agreements and the bonds, TIM is required to provide notification of change of control. Identification of the occurrence of a change of control and the applicable consequences – including, at the discretion of the investors, the establishment of guarantees or the early repayment of the amount paid in cash or as shares and the cancellation of the commitment in the absence of agreements to the contrary – are specifically covered in the individual agreements.

In addition, the outstanding loans generally contain a commitment by TIM, whose breach is an Event of Default, not to implement mergers, demergers or transfers of business, involving entities outside the Group. Such an Event of Default may entail, upon request of the Lender, the early redemption of the drawn amounts and/or the annulment of the undrawn commitment.

The documentation of the loans granted to certain companies of the TIM Group generally contain obligations to comply with certain financial ratios, as well as the usual other covenants, under penalty of a request for the early repayment of the loan.

Finally, as at December 31, 2022, no covenant, negative pledge or other clause relating to the aforementioned debt position had in any way been breached or violated.

Revolving Credit Facility

The following table shows committed credit lines(*) available at December 31, 2022:

(billion euros)	12/31/2022		12/31/2021	
	Agreed	Drawn down	Agreed	Drawn down
Sustainability-linked RCF - May 2026	4.0	—	4.0	—
Total	**4.0**	**—**	**4.0**	**—**

(*) In accordance with the contract signed, the Banks have committed to make the funds available on demand (with at least 3 days' notice). As this is a "Committed" line, the banks have no mechanisms in place not to honor the request for funds made by the Company, without prejudice to the market standard early mandatory cancellation clauses (Natural contract expiry, Change in control, Borrower illegality, Events of default).

On July 6, 2022, TIM stipulated a new loan with a pool of leading international banks, which benefits from the "Italy Guarantee" (in accordance with art. 1, subsection 1 of Decree-Law no. 23 of April 8, 2020 as subsequently amended and supplemented) for an amount of 2 billion euros.

TIM's rating at December 31, 2022

At December 31, 2022, the three rating agencies – Standard & Poor's, Moody's and Fitch Ratings – rated TIM as follows:

	Rating	**Outlook**
STANDARD & POOR'S	B+	Negative
MOODY'S	B1	Negative
FITCH RATINGS	BB-	Negative

NOTE 15
NET FINANCIAL DEBT

The table below shows the breakdown of net financial debt of the TIM Group at December 31, 2022 and December 31, 2021, determined in accordance with the provisions of the "*Guidelines on disclosure requirements under the Prospectus Regulation*" issued by the ESMA (European Securities & Markets Authority) on March 4, 2021 (ESMA32-382-1138) and incorporated by Consob with its Note of Attention no. 5/21 dated April 29, 2021.

This table also shows the reconciliation of the net financial debt determined according to the aforementioned criteria indicated by the ESMA and net financial debt calculated according to the criteria of TIM S.p.A..

(million euros)		12/31/2022	12/31/2021
Liquid assets with banks, financial institutions and post offices	(a)	(1,157)	(3,532)
Other cash and cash equivalents	(b)	(218)	(26)
Securities other than investments	(c)	—	—
Liquidity	**(d=a+b+c)**	**(1,375)**	**(3,558)**
Current financial debt (including debt instruments, but excluding the current portion of non-current financial debt)	(e)	1,509	618
Current portion of non-current financial debt	(f)	4,550	4,768
Current financial debt	**(g=e+f)**	**6,059**	**5,386**
Net current financial debt	**(h=g-d)**	**4,684**	**1,828**
Non-current financial debt (excluding the current part and debt instruments)	(i)	10,040	10,443
Debt instruments	(j)	10,118	12,506
Trade payables and other non-current debt	(k)	1	1
Non-current financial debt	**(l=i+j+k)**	**20,159**	**22,950**
Total net financial debt as per ESMA guidelines 32-382-1138	**(m=h+l)**	**24,843**	**24,778**
Trade payables and other non-current debt (**)		(1)	(1)
Non-current financial receivables arising from lease contracts		(8)	(11)
Current financial receivables arising from lease contracts		(45)	(39)
Financial receivables and other current financial assets		(377)	(23)
Other financial receivables and other non-current financial assets		(2,273)	(2,767)
Subtotal	**(n)**	**(2,704)**	**(2,841)**
Net financial debt carrying amount (*)	(p=m+n)	**22,139**	**21,937**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	(q)	(430)	(1,325)
Adjusted Net Financial Debt	**(r=p+q)**	**21,709**	**20,612**

(*) As regards the effects of related-party transactions on net financial debt, reference should be made to the specific table included in the Note "Related-party transactions".

The following additional disclosures are provided in accordance with IAS 7:

Additional cash flow information required by IAS 7

(thousands of euros)		12/31/2021	Cash movements: Receipts and/or issues	Cash movements: Payments and/or reimbursements	Non-cash movements: Exchange differences	Non-cash movements: Fair value changes	Non-cash movements: Other changes and reclassifications	12/31/2022
Non-current financial payables:								
Bonds		13,892		(1,098)	59	(39)	(28)	12,786
Convertible bonds		1,998		(2,000)			2	—
Amounts due to banks		3,327	2,000	(699)			30	4,658
Other financial payables		4,343		(5)	42		(187)	4,193
	(a)	**23,560**	**2,000**	**(3,802)**	**101**	**(39)**	**(183)**	**21,637**
of which current portion		*4,324*						*4,324*
Non-current financial liabilities for lease contracts:		**3,175**	**54**	**(391)**			**197**	**3,035**
	(b)	**3,175**	**54**	**(391)**	**—**	**—**	**197**	**3,035**
of which current portion		*432*						*432*
Other non-current financial liabilities:								
Hedging derivative liabilities relating to hedged items classified as non-current assets/liabilities of a financial nature:		1,391			1	(973)	(8)	411
Non-hedging derivatives		1,355			139	(575)	17	936
Other liabilities		1					(1)	—
	(c)	**2,747**	**—**	**—**	**140**	**(1,548)**	**8**	**1,347**
of which current portion		*106*						*—*
Current financial payables:								
Amounts due to banks		200					(99)	101
Other financial payables		417			—	—	991	1,408
Hedging derivative liabilities relating to hedged items classified as current assets/liabilities of a financial nature		—						—
	(d)	**617**	**—**	**—**	**—**	**—**	**892**	**1,509**
Total Financial liabilities (Gross financial debt)	**(e=a+b+c+d)**	**30,099**	**2,054**	**(4,193)**	**241**	**(1,587)**	**914**	**27,528**
Hedging derivative receivables relating to hedged items classified as current and non-current assets/liabilities of a financial nature	(f)	391			102	(75)	9	427
Non-hedging derivative receivables	(g)	1,373			139	(617)	(11)	884
Total	**(h=e-f-g)**	**28,335**	**2,054**	**(4,193)**	**—**	**(895)**	**916**	**26,217**

The value of the paid and collected interest expense reported in the Report on Operations takes into account the movements relating to transactions in CCIRS derivatives to hedge underlying assets in both the assets component (collections) and the liabilities component (payments) without netting the positions.

(million euros)	2022	2021
Interest expense paid	(1,383)	(1,296)
Interest income received	556	504
Net total	**(827)**	**(792)**

To consider the components of CCIRS derivatives as a single transaction, a representation is given with interest flows in and out shown net. This approach gives the following results:

(million euros)	2022	2021
Interest expense paid	(1,259)	(1,191)
Interest income received	432	399
Net total	**(827)**	**(792)**

NOTE 16
FINANCIAL RISK MANAGEMENT

Financial risk management objectives and policies of TIM S.p.A.

As reported in the Note "Financial Risk Management" of the TIM Group consolidated financial statements, TIM S.p.A. adheres to the Guidelines on "Management and control of financial risk" established for the Group.
The risk management policies of TIM S.p.A. observe the policies for the diversification of risks identified for the Group.
An optimum fixed-rate and variable-rate debt composition is defined for the entire Group and is not established for the individual companies.
As for the exchange rate risk on financial payables contracted by TIM S.p.A. denominated in currencies other than euro, such risk is hedged in full.
Derivative financial instruments are designated as fair value hedges for managing exchange rate and interest rate risk on instruments denominated in currencies other than euro and for managing interest rate risk on fixed-rate loans in euros. Derivative financial instruments are designated as cash flow hedges when the objective is to pre-set the exchange rate of future transactions and the interest rate.
All derivative financial instruments are entered into with leading banking and financial counterparts whose credit ratings are constantly monitored to reduce the credit risk.
TIM S.p.A. has current account transactions with subsidiaries, as part of its treasury services which are conducted at market rates, and multi-year loan agreements with them which are also at market rates.

Interest rate risk: sensitivity analysis

The change in interest rates on the variable component of payables and liquidity may lead to higher or lower finance income and expenses, while the changes in the level of the expected interest rate affect the fair value measurement of TIM S.p.A. derivatives. In particular:

- with regard to derivatives that convert the liabilities contracted by TIM S.p.A. to fixed rates (cash flow hedging), in line with international accounting standards that regulate hedge accounting, the fair value (mark-to-market) measurement of such instruments is set aside in a specific unavailable Equity reserve. The combined change of the numerous market variables to which the mark-to-market calculation is subject between the transaction inception date and the measurement date renders any assumption about the trend of the variables of little significance. As the contract expiration date approaches, the accounting effects described will gradually be absorbed until they cease to exist;
- if, at December 31, 2022, the interest rates in the various markets in which TIM S.p.A. operates had been 100 basis points higher/lower compared to the actual rates, then higher/(lower) finance expenses, before the income tax effect, would have been recognized in the income statement for 46 million euros (-18 million euros at December 31, 2021).

Refer to Note 2 "Accounting Policies" for the potential risk generated by the reform of benchmark interest rates.

Allocation of the financial structure between fixed rate and variable rate

As for the allocation of the financial structure between the fixed-rate component and the variable-rate component, for both financial assets and liabilities, reference should be made to the following tables. In the tables below we took into account the nominal repayment/investment amount (because that amount expresses the effective interest rate exposure of the Group) and, as far as financial assets are concerned, the intrinsic nature (financial characteristics and duration) of the transactions under consideration rather than just the stated contractual terms alone. Bearing that in mind, a transaction whose characteristics (short or very short time frame and frequent renewal) are such that the interest rate is periodically reset on the basis of market parameters, even though the contract does not call for re-fixing the interest rate (such as in the case of bank deposits, Euro Commercial Papers and receivables on sales of securities), has been considered in the category of variable rate.

Total Financial liabilities (at the nominal repayment amount)

	12/31/2022			12/31/2021		
(million euros)	Fixed rate	Variable rate	Total	Fixed rate	Variable rate	Total
Bonds	10,799	1,700	12,499	15,025	513	15,538
Loans and other financial liabilities (*)	7,646	6,198	13,844	8,046	3,776	11,822
Total	**18,445**	**7,898**	**26,343**	**23,071**	**4,289**	**27,360**

(*) At 12/31/2022, current liabilities totaled 1,505 million euros, of which 1,305 million euros at variable rates (616 million euros at 12/31/2021, of which 194 million euros at variable rates).

Total Financial assets (at the nominal investment amount)

(million euros)	12/31/2022 Fixed rate	Variable rate	Total	12/31/2021 Fixed rate	Variable rate	Total
Cash & cash equivalents	—	1,375	1,375	—	3,558	3,558
Other receivables	1,593	1,947	3,540	828	2,607	3,435
Total	**1,593**	**3,322**	**4,915**	**828**	**6,165**	**6,993**

With regard to variable-rate financial instruments, the contracts provide for revisions of the related parameters to take place within the subsequent 12 months.

Effective interest rate

As to the effective interest rate, for the categories where that parameter can be determined, such parameter refers to the original transaction net of the effect of any derivative hedging instruments. The disclosure, which is provided by class of financial asset and liability, has been determined, for purposes of calculating the weighted average, using the carrying amount adjusted by accruals, prepayments, deferrals and fair value adjustments: this is therefore the amortized cost, net of accruals and any changes in fair value, as a consequence of hedge accounting.

Total Financial Liabilities

(million euros)	12/31/2022 Adjusted carrying amount	Effective interest rate (%)	12/31/2021 Adjusted carrying amount	Effective interest rate (%)
Bonds	12,457	3.58	15,475	3.56
Loans and other financial liabilities	13,289	3.74	11,380	3.01
Total	**25,746**	**3.66**	**26,855**	**3.33**

Total Financial assets

(million euros)	12/31/2022 Adjusted carrying amount	Effective interest rate (%)	12/31/2021 Adjusted carrying amount	Effective interest rate (%)
Cash & cash equivalents	1,375	0.62	3,558	—
Other receivables	2,699	4.53	2,833	2.82
Total	**4,074**	**3.21**	**6,391**	**1.25**

As for financial assets, the weighted average effective interest rate is not essentially influenced by the existence of derivatives.

As for market risk management using derivatives, reference should be made to the Note "Derivatives".

Credit risk

Credit risk represents TIM's exposure to possible losses arising from the failure of commercial or financial counterparties to fulfill their obligations. To measure this risk over time for impairment of financial assets (trade receivables due from customers included), the introduction of IFRS 9 required switching from the incurred loss model pursuant to IAS 39 to the expected credit loss model.

Such risk stems principally from economic and financial factors, or from the possibility that a default situation of a counterparty could arise, or from more strictly technical, commercial or administrative factors.

TIM's maximum theoretical exposure to credit risk is represented by the carrying amount of the financial assets and trade receivables recorded in the financial statements, excluding guarantees received, described in the Note "Contingent liabilities, other information, commitments and guarantees".

Risk related to trade receivables is managed using customer scoring and analysis systems. For specific categories of trade receivables, the Group also makes use of factoring, mainly on a "non-recourse" basis.

In referring to the details indicated in the Note "Trade and miscellaneous receivables and other current assets", it should be pointed out that the provision for bad debts is raised on specific credit positions that present peculiar risk elements. On credit positions that do not have such characteristics, provisions are raised by customer segment according to the average uncollectibility estimated on the basis of statistical indicators.

Financial assets other than trade receivables are written down for impairment on the basis of a general model which recognizes expected credit losses over the following 12 months, or over the residual life of the asset in the event of a substantial worsening of its credit risk. The expected credit loss is calculated based on the default probability and the percentage of credit that cannot be recovered in the event of a default (the loss given default).

The model adopted to calculate the expected credit loss is based on the Bloomberg Credit Risk Model, a model developed by Bloomberg which, starting from Merton's distance-to-default ("DD") concept, estimates the probability of default together with the recovery rate. At the same time, the loss given default is defined as the non-recoverable component of the post-default financial asset.

In particular, the DD - based on balance sheet data - is enriched with a series of additional information by country (macroeconomic, risk), business sector and individual company, as well as accounting adjustments aimed at ensuring uniformity of the model's outputs; finally, through a non-linear function of the DD, the default probability is obtained.

In order to improve credit risk management and relieve pressure on working capital, with specific reference to the offers for the Consumer market involving the option of paying for products by installments, starting February 1, 2021, the company TIMFin has been operating, the result of the corporate joint venture between Santander Consumer Bank (SCB) and TIM.

In 2022, TIMFin expanded the areas of operation, offering finance to also support sales made on the web store channel Tim.it, in addition to covering the physical stores as it had already been doing since the first year of operation.

Moreover, again for the credit risk relating to the asset components which contribute to the determination of Net financial debt it should be noted that, as per Group policy, the management of the liquidity of TIM S.p.A. is guided by conservative criteria and is principally based on money market management. As part of this management, investments are made during the year with temporary excess cash resources, which are expected to turn around within the subsequent 12-month period.

In order to limit the risk of non-fulfillment of the obligations undertaken by the counterparty, deposits were made with banking and financial institutions with a rating no lower than investment grade and non-negative outlook. Moreover, the terms of deposits are shorter than three months.

As concerns the credit risk relating to the current asset components and with particular reference to the trade receivables, the risk is managed on two levels:

- operational management along the entire process chain, starting from the checks during acquisition and continuing to the internal management checks of still active customers and the subsequent service interruption stages, contractual termination and assignment to specific institutions specialized in credit collection;
- management of specific securitization programs rather than of non-recurring disposals, most of which non-recourse in nature.

Liquidity risk

TIM S.p.A. pursues the Group’s objective of achieving an adequate level of financial flexibility.

Current financial assets at December 31, 2022, together with unused committed bank lines, ensure complete coverage of debt repayment obligations for the next 12 months.

At December 31, 2022, the liquidity margin available for TIM S.p.A. is 5,375 million euros, with a decrease of 2,183 million euros compared with end 2021 (7,558 million euros). Moreover, on January 20, 2023, TIM issued a 5-year Bond for an amount of 850 million euros and a coupon of 6.875%.

22% of gross financial debt at December 31, 2022 (nominal repayment amount) will become due in the next 12 months.

The following tables report the contractual cash flows, not discounted to present value, relating to gross financial debt at nominal repayment amounts and the interest flows, determined using the terms and the interest and exchange rates in place at December 31, 2022. The portions of principal and interest of the hedged liabilities included both the disbursements and the receipts of the related hedging instruments.

Financial liabilities – Maturities of contractually expected disbursements

(million euros)		maturing by 12/31 of the year: 2023	2024	2025	2026	2027	After 2027	Total
Bonds	Principal	2,423	3,406	2,000	1,750	1,250	1,670	12,499
	Interest portion	429	310	196	139	81	1,018	2,173
Loans and other financial liabilities (*)	Principal	1,340	766	1,370	719	697	3,958	8,850
	Interest portion	328	308	301	240	261	1,806	3,244
Liabilities for lease contracts	Principal	404	375	365	364	333	1,164	3,005
	Interest portion	138	126	109	92	74	188	727
Non-current financial liabilities(*)	**Principal**	**4,167**	**4,547**	**3,735**	**2,833**	**2,280**	**6,792**	**24,354**
	Interest portion	**895**	**744**	**606**	**471**	**416**	**3,012**	**6,144**
Current financial liabilities (**)	**Principal**	**1,505**	**—**	**—**	**—**	**—**	**—**	**1,505**
	Interest portion	**17**	**—**	**—**	**—**	**—**	**—**	**17**
Total Financial liabilities	**Principal**	**5,672**	**4,547**	**3,735**	**2,833**	**2,280**	**6,792**	**25,859**
	Interest portion	**912**	**744**	**606**	**471**	**416**	**3,012**	**6,161**

(*) These include hedging instruments, but exclude non-hedging derivatives.
(**) These exclude non-hedging derivatives.

Derivatives on financial liabilities – Contractually expected interest flows

(million euros)	maturing by 12/31 of the year: 2023	2024	2025	2026	2027	After 2027	Total
Disbursements	181	124	102	101	101	608	1,217
Receipts	(156)	(102)	(68)	(67)	(67)	(402)	(862)
Hedging derivatives – net (receipts) disbursements	**25**	**22**	**34**	**34**	**34**	**206**	**355**
Disbursements	260	224	212	213	211	1,554	2,674
Receipts	(229)	(218)	(213)	(214)	(212)	(1,556)	(2,642)
Non-Hedging derivatives – net (receipts) disbursements	**31**	**6**	**(1)**	**(1)**	**(1)**	**(2)**	**32**
Total net disbursements (receipts)	**56**	**28**	**33**	**33**	**33**	**204**	**387**

In order to name the Parent as the sole counterparty of the banking system, all the derivatives of the Group, except for those relating to two banking counterparties, have been centralized under TIM S.p.A.. In the TIM S.p.A. financial statements, this centralization has resulted in the presence of two non-hedging derivatives for each centralized transaction (one with the bank and the other for the same amount and opposite sign with the company of the Group), while the hedging relationship remains with the subsidiary and the Group.

The flows relating to the non-hedging derivatives that were placed under centralized management have therefore been excluded both from the analysis by maturity of contractually expected disbursements for financial liabilities and from the analysis by maturity of contractually expected interest flows for derivatives, because the positions are fully netted with one another and, consequently, are not significant for the analysis of liquidity risk.

Market value of derivative instruments

In order to determine the fair value of derivatives, the TIM Group uses various valuation models. The mark-to-market calculation is determined by discounting to present value the interest and notional future contractual flows using market interest rates and exchange rates.

The notional amount of IRS does not represent the amount exchanged between the parties and therefore does not constitute a measurement of credit risk exposure which, instead, is limited to the amount of the differential between the interest rates paid/received. The market value of CCIRSs, instead, also depends on the differential between the reference exchange rate at the date of signing the contract and the exchange rate at the date of measurement, since CCIRSs imply the exchange of the reference interest and principal, in the respective currencies of denomination.

The options are measured according to the Black & Scholes or Binomial models and involve the use of various measurements factors, such as: time horizon of the life of the option, risk-free rate of return, current price, volatility and any cash flows (e.g. dividends) of the underlying instrument, and exercise price.

NOTE 17
DERIVATIVES

Derivative financial instruments are used by TIM S.p.A. to hedge its exposure to foreign exchange rate and interest rate risks and also to diversify the parameters of debt so that costs and volatility can be reduced to within predetermined operational limits.

Derivative financial instruments at December 31, 2022 are principally used to manage debt positions. They include interest rate swaps (IRS) to reduce interest rate exposure on fixed-rate and variable-rate bank loans and bonds, as well as cross currency and interest rate swaps (CCIRS), and currency forwards to convert the loans/receivables secured in different foreign currencies to the functional currency.

IRS transactions, at specified maturity dates, provide for the exchange of flows of interest with the counterparties, calculated on the notional amount, at the agreed fixed or variable rates.

The same also applies to CCIRS transactions which, in addition to the settlement of periodic interest flows, may provide for the exchange of principal, in the respective currencies of denomination, at maturity and possibly spot.

In carrying out its role as the Treasury function of the Group and with the aim of centralizing all exposures with banking counterparties in just one entity (i.e. TIM S.p.A. pooling), TIM has derivative contracts signed with banks and mirror intercompany derivative contracts with Telecom Italia Capital S.A. and Telecom Italia Finance S.A., for a notional value of 4,589 million euros. The balance of asset and liability measurements of these contracts is equal to zero.

Hedging: economic relationship between underlying instrument and derivatives

The hedge relationships documented in hedge accounting at TIM S.p.A. belong to four categories: i) hedging of the fair value of bond issues denominated in euro and ii) hedging of the cash flows coming from the coupon flow of bond issues denominated in currencies other than euro, iii) hedging of the cash flows coming from the flow of floating interest on intercompany loans denominated in euro, iv) hedging of the cash flows coming from the flow of floating interest on intercompany loans denominated in foreign currency.

In the first case, the hedged risk is the fair value of the bond attributable to the interest rates and the hedging derivatives are IRSs, which allow all or part of the bond coupon flow to be received against a flow of floating interest.

The current value of both instruments, underlying and derivatives, depends on the structure of the Euro market interest rates at the foundation of the calculation of the discount factors and flows of floating interest of the derivative. In particular, oscillating rates will translate as changes in the discount factor of the fixed interest expense on the underlying; on the derivative, changes in the discount factor of interest income will occur, as well as changes in the nominal flow of variable interest (only partially corrected by the discounting effect). The effects induced on the derivative are opposite, in accounting terms, to the effects on the underlying instrument.

In the second case, the hedged risk is represented by the variability in cash flows (and the repayment of the nominal amount) generated by exchange rates; hedging comprises combinations of IRS and CCIRS that synthetically transform fixed rate foreign currency income flows into fixed rate euro flows. In this case, exchange rate fluctuations will usually produce contrary effects on the underlying asset and on the derivative, as the asset leg of the latter faithfully reflects the underlying asset, while the liability leg is denominated in euro and is therefore insensitive to the exchange rate.

In the third case, the hedged risk is the variability of the cash flow against the performance of Euro market interest rates. The hedging is done with IRSs, which allow a variable flow of interest to be collected against the payment of a fixed rate interest flow. The current value of the underlying asset and derivatives depends on the structure of the Euro market interest rates. The fluctuations of rates generate an impact on the nominal amount of the flow of floating rate interest of the loan (only partially corrected by the discounting effect); on the derivative, there are changes in the discount factors of the flow of fixed interest expense and changes in the nominal flow of floating interest income (only partially corrected by the discounting effect). The effects induced on the derivative are of a single and contrary nature with respect to those on the underlying asset.

In the fourth case, the hedged risk is the variability of cash flows (including the nominal amount to be repaid) induced by the exchange rate in addition to the market interest rates in foreign currency; the hedging consists of IRS and CCIRS derivatives which turn the floating rate in foreign currency into a Euro fixed rate. In this case, exchange rate fluctuations (in addition to fluctuations in the interest rates in foreign currency) will produce physiologically opposite effects on the underlying asset and on the derivative, because the asset leg of the latter faithfully reflects the underlying asset, while the liability leg is denominated in euros and is therefore insensitive to the exchange rate (and to the interest rates in foreign currency). The impacts caused, on the other hand, by the Euro interest rates on the liability leg of the derivative are restricted to just discounting.

There is a final case of commercial forecast transaction coverage denominated in a currency other than the euro; the risk hedged is always ascribed to the variability of the cash flow linked to exchange rates, but the hedge is assured through an active deposit denominated in the same currency as the items hedged. Write-backs/write-downs of the deposit in foreign currency generated by oscillations in the exchange rate are structurally the same and opposite to the impacts produced on the underlying items.

Hedges: determination of the hedge ratio

The types of hedging implemented by the Group require the adoption of a hedge ratio equal to 1:1, as the types of risk hedged (interest rate and exchange rate risks) are such as to generate economic effects in the underlying instruments that can only be offset by the same notional quantities of derivative instruments.

Hedges: potential sources of ineffectiveness

The contractualization of derivatives to hedge financial risks takes place at arm's length and aims to completely neutralize the effects produced by such instruments.

However, in practice, both fair value hedges and cash flows hedges, although financially perfect, cannot guarantee absolute effectiveness due to the many banks involved, the particular nature of some derivatives attributable to fixing and/or the indexing of variable parameters, and the possible imperfect correspondence of critical terms.

The first table indicates total financial derivatives of TIM S.p.A. at December 31, 2022 and 2021; in compliance with standard IFRS 7, notional amounts are shown with reference to all the derivative instruments involved in the hedges.

The following tables break down financial derivatives by type of risk for each kind of hedging, separating financial assets and liabilities. For CCIRS, the notional amount refers to the contractual value in euros, for IRS in a currency other than the euro, the value is indicated at the market exchange rate.

Type	Hedged risk	Notional amount at 12/31/2022	Notional amount at 12/31/2021	Spot Mark-to-Market (*) (Clean Price) at 12/31/2022 (million euros)	Spot Mark-to-Market (*) (Clean Price) at 12/31/2021 (million euros)
Interest rate swaps	Interest rate risk	300	300	—	3
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	—	—	—	—
Total Fair Value Hedge Derivatives		**300**	**300**	**—**	**3**
Interest rate swaps	Interest rate risk	2,182	2,206	(144)	(732)
Cross Currency and Interest Rate Swaps (CCIRS)	Interest rate risk and currency exchange rate risk	2,673	2,673	124	(291)
Total Cash Flow Hedge Derivatives		**4,855**	**4,879**	**(20)**	**(1,023)**
Total Non-Hedge Accounting Derivatives		**1,599**	**1,834**	**(41)**	**3**
Total TIM derivatives		**6,754**	**7,013**	**(61)**	**(1,017)**

(*) Spot Mark-to-market above represents the market measurement of the derivative net of the accrued portion of the flow in progress.

The positions in non-hedge accounting derivatives also include IRS Euros for a total notional amount of 1,400 million euros; specifically, these are fair value hedges of bond loans in euros, issued by TIM discontinued in 2021.

In this same item, the following are also noted: the value - equal to a fair value of 15 million euros (liabilities) - of the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

Fair value hedges (million euros)	Accounting item		Notional value	Carrying amount	Change in fair value for the year
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets	a)	**300**	**—**	**(3)**
Assets				—	
Liabilities				—	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets	b)	**—**	**—**	**—**
Assets				—	
Liabilities				—	
Derivative instruments (spot value)		a)+b)	**300**	**—**	**(3)**
Accruals				1	
Derivative instruments (gross value)				**1**	
Underlying instruments [1]	Bonds - Current/non-current liabilities		**300**	**(300)**	
of which fair value adjustment	Fair value adjustment and measurements at amortized cost	c)		—	3
Ineffectiveness		a)+b)+c)			1
Fair value adjustment for hedging settled in advance [2]				(83)	

(1)Includes the amortized cost value of bonds currently hedged plus the fair value adjustment.

(2) Referred to bonds no longer hedged, which are therefore not presented in the table.

Cash flow hedges (million euros)	Accounting item		Notional value	Carrying amount	Change in fair value	Change in cumulative fair value
Interest rate swaps	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets	a)	**2,182**	**(144)**	**587**	
Assets				10	(14)	
Liabilities				(154)	601	
Cross Currency and Interest Rate Swaps (CCIRS)	Hedging derivatives relating to hedged items classified as current financial assets/liabilities - Current/non-current assets	b)	**2,673**	**124**	**415**	
Assets				335	44	
Liabilities				(211)	371	
Derivative instruments (spot value)		**a)+b)**	**4,855**	**(20)**	**1,002**	
Accruals				36		
Derivative instruments (gross value)				**16**		
of which equity reserve gains and losses					917	
Determination of ineffectiveness						
Change in derivatives		c)				(110)
Underlying instruments [(4)]		d)				105
Ineffectiveness [(5)]	Positive fair value adjustment of financial derivatives - non-hedging	c)+d)				(6)
Equity reserve						
Equity reserve balance				(293)		
of which due to the fair value of hedging settled in advance				23		
Reclassification to P&L	Negative reversal of the reserve for the fair value adjustment of hedging derivatives (cash flow hedges)				(11)	

(4) Hypothetical derivatives used in measuring the effectiveness of cash flow hedges.
(5) The ineffectiveness, due to its nature and calculation, does not necessarily coincide with the difference in cumulative changes in the fair value of derivatives and the underlying instrument; the effect due to the adoption of CVA/DVA is not considered.

The transactions hedged by cash flow hedges will generate cash flows and produce economic effects in the income statement in the periods indicated in the following table:

Denomination currency	Notional amount in denomination currency (millions)	Start of period	End of period	Rate applied	Interest period	Hedging of notional amount in euro	Hedging of rate in euro
GBP	375	Jan-23	May-23	5.875%	Annually	552	5.535%
YEN	20,000	Jan-23	Oct-29	6 month JPY Libor + 0.94625%	Semiannually	174	5.940%
USD	1,000	Jan-23	Nov-33	3 month USD Libor + 0.756%	Quarterly	849	5.994%
USD	1,500	Jan-23	May-24	5.303%	Semiannually	1,099	4.226%
EUR	794	Jan-23	Sept-34	6 month Euribor + 0.8787%	Semiannually	794	4.332%
EUR	791	Jan-23	July-36	6 month Euribor + 1.45969%	Semiannually	791	5.884%

The method selected to test the effectiveness retrospectively and, whenever the principal terms do not fully coincide, prospectively, for Cash Flow Hedge derivatives, is the Volatility Risk Reduction (VRR) Test. This test assesses the ratio between the portfolio risk (meaning the derivative and the item hedged) and the risk of the hedged item taken individually. In essence, the portfolio risk must be significantly lower than the risk of the hedged item.

NOTE 18

SUPPLEMENTARY DISCLOSURES ON FINANCIAL INSTRUMENTS

Measurement at fair value

For the purposes of the comparative information between the carrying amounts and fair value of financial instruments, required by IFRS 7, the majority of the non-current financial liabilities of TIM consist of bonds, whose fair value is directly observable in the financial markets, as they are financial instruments that due to their size and diffusion among investors, are commonly traded on the relevant markets (see the Note "Non-current and current financial liabilities"). For other types of financing, however, the following assumptions have been made in determining fair value:

- for variable-rate loans, the nominal repayment amount has been assumed;
- for fixed-rate loans: fair value has been assumed to be the present value of future cash flows using market interest rates at December 31, 2022.

Lastly, for the majority of financial assets, their carrying amount is a reasonable approximation of their fair value, since these are short-term investments that are readily convertible into cash.

The fair value measurement of the financial instruments of TIM is classified according to the three levels set out in IFRS 7. In particular, the fair value hierarchy introduces the following levels of input:

- Level 1: quoted prices in active markets;
- Level 2: prices calculated using observable market inputs;
- Level 3: prices calculated using inputs that are not based on observable market data.

The following tables contain, for assets and liabilities at December 31, 2022 and December 31, 2021 and in accordance with the categories established by IFRS 9, the supplementary disclosures on financial instruments required by IFRS 7 and the schedules of gains and losses.

Key for IFRS 9 categories

	Acronym
Financial assets measured at:	
Amortized cost	AC
Fair value through other comprehensive income	FVTOCI
Fair value through profit or loss	FVTPL
Financial liabilities measured at:	
Amortized cost	AC
Fair value through profit or loss	FVTPL
Hedging Derivatives	HD
Not applicable	n.a.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2022

				Amounts recognized in financial statements			Levels of hierarchy or of fair value				
(million euros)	IFRS 9 categories	notes	Carrying amount at 12/31/2022	Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Level 1	Level 2	Level 3	Values recognized in the Financial statements as per IFRS 16	Fair Value at 12/31/2022
ASSETS											
Financial assets measured at amortized cost	AC		**6,908**	**6,908**	**—**	**—**					**6,908**
Non-current assets											
Receivables from employees		8)	36	36							
Other financial receivables		8)	2,237	2,237							
Miscellaneous receivables from others (non-current)		9)	11	11							
Current assets											
Receivables from employees		8)	19	19							
Other short-term financial receivables		8)	358	358							
Cash and cash equivalents		8)	1,375	1,375							
Trade receivables		12)	2,776	2,776							
Miscellaneous receivables from others (current)		12)	82	82							
Contract assets		12)	14	14							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**33**	**—**	**33**	**—**					**33**
Non-current assets											
Other investments		7)	*33*		*33*			*20*	*13*		
Securities other than investments		8)									
Current assets											
Trade receivables		12)	—								
Securities other than investments		8)	—		—		—				
Financial assets measured at fair value through profit or loss	FVTPL		**884**	**—**	**—**	**884**					**884**
Non-current assets											
Non-hedging derivatives		8)	*825*			*825*		*825*			
Current assets											
Securities other than investments		8)									
Non-hedging derivatives		8)	59			*59*		*59*			
Hedging Derivatives	HD		**427**	**—**	**426**	**1**					**427**
Non-current assets											
Hedging Derivatives		8)	*396*		*396*	—		*396*			
Current assets											
Hedging Derivatives		8)	*31*		*30*	*1*		*31*			
Financial receivables for lease contracts	n.a.		**53**	**—**	**—**	**—**				**53**	**53**
Non-current assets		8)	*8*							*8*	
Current assets		8)	*45*							*45*	
Total			**8,305**	**6,908**	**459**	**885**	**—**	**1,331**	**13**	**53**	**8,305**

The financial instruments belonging to hierarchy level 3 of fair value are represented by the following Other investments recognized as Non-current assets, for which directly or indirectly observable prices on the market are not available: Banca UBAE; Istituto Europeo di Oncologia; Istituto Enciclopedia Italiana G. Treccani and other more minor.

These equity investments were measured on the basis of an analysis, deemed reliable, of their significant assets and liabilities.

In 2022, there were no effects on the income statement deriving from the measurement of financial instruments at fair-value hierarchy level 3.

The profit/(loss) recognized in Other components of the Statements of Comprehensive Income were recognized within the scope of the Reserve for financial assets measured at fair value through other comprehensive income.

(millions of euros)	IFRS 9 categories	notes	Carrying amount at 12/31/2022	Amounts recognized in financial statements			Levels of hierarchy or of fair value			Values recognized in the financial statements as per IFRS 16	Fair Value at 12/31/2022
				Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Level 1	Level 2	Level 3		
LIABILITIES											
Financial liabilities measured at amortized cost	AC/HD		**27,804**	**27,804**							**26,270**
Non-current liabilities											
Non-current financial payables		14)	*17,686*	*17,686*							
Current liabilities											
Current financial payables		14)	*5,436*	*5,436*							
Trade and miscellaneous payables and other current liabilities		22)	*4,553*	*4,553*							
Contract liabilities		22)	*129*	*129*							
Financial liabilities measured at fair value through profit or loss	FVTPL		**936**			**936**					**936**
Non-current liabilities											
Non-hedging		14)	*859*			*859*		*844*	*15*		
Current liabilities											
Non-hedging derivatives		14)	*77*			*77*		*77*			
Hedging Derivatives	HD		**411**		**411**	**—**					**411**
Non-current liabilities											
Hedging Derivatives		14)	*234*		*234*			*234*			
Current liabilities											
Hedging Derivatives		14)	*177*		*177*			*177*			
Liabilities for lease contracts	n.a.		**3,059**							**3,059**	**3,059**
Non-current liabilities		14)	*2,600*							*2,600*	
Current liabilities		14)	*459*							*459*	
Total			**32,210**	**27,804**	**411**	**936**	**—**	**1,332**	**15**	**3,059**	**30,676**

Note that financial liabilities include a financial instrument for an amount of 15 million euros, belonging to hierarchy level 3 of fair value, for which directly or indirectly observable prices on the market are not available. This financial liability refers to the rights envisaged in the Transaction Agreement in the favor of Teemo Bidco Sarl, as minority shareholder, under the scope of the FiberCop transaction.

The measurement of the economic value of the financial liability has been taken using a valuation model defined internally by TIM. Through an econometric approach, the correlation has been first estimated between the targets set at a national level and a series of macro economic and social-demographic variables. Then taking into account the uncertainty as to how these variables will evolve and the market share of FiberCop, through Monte Carlo simulation, a series of possible developments of the phenomenon was calculated and the expected value of the financial liability, determined.

Carrying amount and fair value hierarchy for each category/class of financial asset/liability and comparison with their fair value at 12/31/2021

(million euros)	IFRS 9 categories	notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements			Levels of hierarchy or of fair value			Values recognized in the financial statements as per IFRS 16	Fair Value at 12/31/2021
				Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Level 1	Level 2	Level 3		
ASSETS											
Financial assets measured at amortized cost	AC		**9,027**	**9,027**	**—**	**—**					**9,027**
Non-current assets											
Receivables from employees		8)	*36*	*36*							
Other financial receivables		8)	*2,731*	*2,731*							
Miscellaneous receivables from others (non-current)		9)	*21*	*21*							
Current assets											
Receivables from employees		8)	*11*	*11*							
Other short-term financial receivables		8)	*12*	*12*							
Cash and cash equivalents		8)	*3,558*	*3,558*							
Trade receivables		12)	*2,564*	*2,564*							
Miscellaneous receivables from others (current)		12)	*77*	*77*							
Contract assets		12)	*17*	*17*							
Financial assets measured at fair value through other comprehensive income	FVTOCI		**35**	**—**	**35**	**—**					**35**
Non-current assets											
Other investments		7)	*35*		*35*		*22*	*—*	*13*		
Securities other than investments		8)									
Current assets											
Trade receivables		12)	*—*		*—*						
Securities other than investments		8)	*—*		*—*		*—*				
Financial assets measured at fair value through profit or loss	FVTPL		**1,373**	**—**	**—**	**1,373**					**1,373**
Non-current assets											
Non-hedging derivatives		8)	*1,305*			*1,305*		*1,305*			
Current assets											
Securities other than investments		8)									
Non-hedging derivatives		8)	*68*			*68*		*68*			
Hedging Derivatives	HD		**391**	**—**	**387**	**4**					**391**
Non-current assets											
Hedging Derivatives		8)	*366*		*363*	*3*		*366*			
Current assets											
Hedging Derivatives		8)	*25*		*24*	*1*		*25*			
Financial receivables for lease contracts	n.a.		**50**	**—**	**—**	**—**				**50**	**50**
Non-current assets		8)	*11*							*11*	
Current assets		8)	*39*							*39*	
Total			**10,876**	**9,027**	**422**	**1,377**	**22**	**1,764**	**13**	**50**	**10,876**

(millions of euros)	IFRS 9 categories	notes	Carrying amount at 12/31/2021	Amounts recognized in financial statements			Levels of hierarchy or of fair value			Carrying amount under IFRS 16	Fair Value at 12/31/2021
				Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Level 1	Level 2	Level 3		
LIABILITIES											
Financial liabilities measured at amortized cost	AC/HD		**30,298**	**30,298**							**30,960**
Non-current liabilities											
Non-current financial payables		14)	*19,237*	*19,237*							
Current liabilities											
Current financial payables		14)	*4,939*	*4,939*							
Trade and miscellaneous payables and other current liabilities		22)	*6,015*	*6,015*							
Contract liabilities		22)	*107*	*107*							
Financial liabilities measured at fair value through profit or loss	FVTPL		**1,355**			**1,355**					**1,355**
Non-current liabilities											
Non-hedging derivatives		14)	*1,303*			*1,303*		*1,288*	*15*		
Current liabilities											
Non-hedging derivatives		14)	*52*			*52*		*52*			
Hedging Derivatives	HD		**1,391**		**1,391**	**—**					**1,391**
Non-current liabilities											
Hedging Derivatives		14)	*1,337*		*1,337*			*1,337*			
Current liabilities											
Hedging Derivatives		14)	*54*		*54*			*54*			
Liabilities for lease contracts	n.a.		**3,177**							**3,177**	**3,975**
Non-current liabilities		14)	*2,743*							*2,743*	
Current liabilities		14)	*434*							*434*	
Total			**36,221**	**30,298**	**1,391**	**1,355**	**—**	**2,731**	**15**	**3,177**	**37,681**

Gains and losses by IFRS 9 categories - Year 2022

(million euros)	IFRS 9 categories	Net gains/(losses) 2022	of which interest
Assets measured at amortized cost	AC	(51)	90
Assets and liabilities measured at fair value through profit or loss	FVTPL	(93)	—
Assets and liabilities measured at fair value through other comprehensive income	FVTOCI	2	—
Financial Liabilities at Amortized Cost	AC	(803)	(711)
Total		**(945)**	**(621)**

Gains and losses by IFRS 9 categories - Year 2021

(million euros)	IFRS 9 categories	Net gains/(losses) 2021	of which interest
Assets measured at amortized cost	AC	(129)	103
Assets and liabilities measured at fair value through profit or loss	FVTPL	(10)	—
Assets and liabilities measured at fair value through other comprehensive income	FVTOCI	1	—
Financial Liabilities at Amortized Cost	AC	(769)	(683)
Total		**(907)**	**(580)**

NOTE 19
EMPLOYEE BENEFITS

This item increased by 90 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2020	Increase/ Discounting	Decrease	12/31/2021
Provision for employee severance indemnities	**676**	18	(53)	**641**
Provision for termination benefit incentives and corporate restructuring	**39**	—	(39)	**—**
Total	**715**	**18**	**(92)**	**641**
of which:				
non-current portion	*676*			*641*
current portion (*)	*39*			*—*

(*) The current portion refers to the Provision for termination benefit incentives and corporate restructuring.

(million euros)	12/31/2021	Increase/ Discounting	Decrease	12/31/2022
Provision for employee severance indemnities	**641**	(57)	(59)	**525**
Provision for termination benefit incentives and corporate restructuring	**—**	206		**206**
Total	**641**	**149**	**(59)**	**731**
of which:				
non-current portion	*641*			*631*
current portion (*)	*—*			*100*

(*) The current portion refers to the Provision for termination benefit incentives and corporate restructuring.

The **Provision for employee severance indemnities** is down 116 million euros on December 31, 2021. The decreases of 59 million euros relating to indemnities paid during the year to employees who terminated employment or for advances.

"Increases/ Present value" recorded lesser expenses of 57 million euros and break down as follows:

(million euros)	2022	2021
(Positive)/negative effect of curtailment	—	—
Finance expenses	11	4
Net actuarial (gains) losses recognized during the year	(68)	14
Total expenses (income)	**(57)**	**18**
Effective return on plan assets	there are no assets servicing the plan	

The net actuarial gains recognized at December 31, 2022 amounted to 68 million euros (net actuarial gains of 14 million euros in 2021), and are essentially connected with both staff turnover and changes to the technical-economic parameters: the inflation rate forecast went from 1.75% at December 31, 2021 to 2.30% at December 31, 2022; while the discount rate increased, going from the 0.98% used at December 31, 2021 to 3.63% at December 31, 2022.

According to Italian law, the amount to which each employee is entitled depends on the period of service and must be paid when the employee leaves the company. The amount of severance indemnity due upon termination of employment is calculated on the basis of the period of employment and the taxable compensation of each employee. This liability is adjusted annually based on the official cost-of-living index and legally-set interest. The liability is not associated with any vesting condition or period or any funding obligation; accordingly, there are no assets servicing the provision. The liability is recognized net of the partial prepayments of the provision and payments of the amounts obtained by employees for the reasons permitted by the applicable regulations.

In accordance with IAS 19, this provision has been recognized as a “Defined benefit plan”, for the amounts due up to December 31, 2022.

Under the regulations introduced by Italian Legislative Decree 252/2005 and Law 296/2006 (the State Budget Law 2007), the severance indemnities accruing from 2008 are assigned to either the INPS Treasury Fund or to supplementary pension funds and take the form of a "Defined contribution plan". However, revaluations of the provision for the employee severance indemnities at December 31, 2006, made on the basis of the official cost-of-living index and legally-prescribed interest, are retained in the provision for employee severance indemnities.

In application of IAS 19, the employee severance indemnities have been calculated using the "Projected Unit Credit Method" according to which:

- the future possible benefits which could be paid to each employee registered in the program in the event of retirement, death, disability, resignation etc. have been projected on the basis of a series of financial assumptions (cost-of-living increases, interest rate, increase in compensation etc.);
- the average present value of future benefits has been calculated, at the measurement date, on the basis of the annual interest rate adopted and of the probability that each benefit actually has to be paid;
- the liability has been calculated as the average present value of future benefits that will be generated by the existing provision at the measurement date, without considering any future accruals.

The following assumptions have been made:

FINANCIAL ASSUMPTIONS	Executives	Non-executives
Inflation rate	**2.30% per annum**	**2.30% per annum**
Discount rate	**3.63% per annum**	**3.63% per annum**
Employee severance indemnities annual increase rate	**3.225% per annum**	**3.225% per annum**
Annual real wage growth:		
equal to or less than 40 years of age	1.0% per annum	1.0% per annum
over 40 but equal to or less than 55 years of age	0.5% per annum	0.5% per annum
over 55 years of age	0.0% per annum	0.0% per annum

DEMOGRAPHIC ASSUMPTIONS	Executives	Non-executives
Probability of death	RG mortality tables 48 published by Ragioneria Generale dello Stato	RG mortality tables 48 published by Ragioneria Generale dello Stato
Probability of disability	INPS tables divided by age and sex	INPS tables divided by age and sex
Probability of resignation:		
up to 40 years of age	2.00%	1.00%
From 41 to 50 years of age	2.00%	0.50%
From 51 to 59 years of age	1.00%	0.50%
From 60 to 64 years of age	None	0.50%
Aged 65 and over	None	None
Probability of retirement	100% on achievement of the AGO requirements aligned with D.L. 4/2019	
Probability of receiving at the beginning of the year an advance from the provision for severance indemnities accrued equal to 70%	1.5% per annum	1.5% per annum

The application of the above assumptions resulted in a liability for employee severance indemnities of 525 million euros at December 31, 2022 (641 million euros at December 31, 2021).

Reported below is a sensitivity analysis for each significant actuarial assumption adopted to calculate the liability as at year end, showing how the liability would have been affected by changes in the relevant actuarial assumptions that were reasonably possible at that date, stated in amounts. The weighted average duration of the obligation is 7.9 years.

CHANGES IN ASSUMPTIONS	Amounts (million euros)
Turnover rate:	
+ 0.25 p.p.	(1)
0.25 p.p.	1
Annual inflation rate:	
+ 0.25 p.p.	(14)
0.25 p.p.	14
Annual discount rate:	
+ 0.25 p.p.	18
0.25 p.p.	(19)

The provisions for termination benefit incentives and corporate restructuring increased in 2022 by 206 million euros and are mainly linked to outgoing managerial and non-managerial staff, envisaged according to the application of art. 4 of Law no. 92 of June 28, 2012 and former art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed, during the year, with the trade unions, by TIM S.p.A.

NOTE 20
PROVISIONS

The item decreased by 315 million euros compared to December 31, 2021. The breakdown and movements are as follows:

(million euros)	12/31/2021	Increase	Taken to income	Used directly	Reclassifications/ other changes	12/31/2022
Provision for taxation and tax risks	**2**		(1)			**1**
Provision for restoration costs	**149**	4		(7)	4	**150**
Provision for legal disputes	**350**	25	—	(39)	(12)	**324**
Provision for commercial risks	**674**	108	(13)	(410)	17	**376**
Provision for risks and charges on investments and corporate-related transactions	**25**	2	(1)		—	**26**
Other provisions	**2**	10		(2)	—	**10**
Total	**1,202**	**149**	**(15)**	**(458)**	**9**	**887**
of which:						
non-current portion	**633**					**517**
current portion	**569**					**370**

The non-current portion of provisions for risks and charges mainly relates to the provision for commercial risks, the provision for restoration costs and some of the provision for legal disputes. More specifically, in accordance with accounting standards, the total amount of the provision for restoration costs is calculated by re-measuring the amounts for which a probable outlay is envisaged, based on the estimated inflation rates for the individual due dates, and subsequently discounted to the reporting date based on the average cost of debt, taking into account cash outflow forecasts.

The **provision for taxation and tax risks** remains substantially unchanged compared to December 31, 2021.

The **provision for restoration costs** related to the provision for restoration of leased real estate and sites used for mobile telephony and the dismantling of tangible assets (batteries, wooden poles). This provision increased by 1 million euros compared to December 31, 2021.

The **provision for legal disputes** decreased by 26 million euros compared to December 31, 2021, mainly as a result of uses made during the year; it includes provisions for disputes with employees (46 million euros) and third-parties (278 million euros).

The **commercial risks provision** decreased by 298 million euros on December 31, 2021, mainly due to the trend of the contractual risk provision for onerous contracts (IAS 37), recorded in the 2021 financial statements, relating to contracts with certain counterparties for offer of multimedia content and representative of the net present value of the negative margin connected with these partnerships. During 2022, it also recorded a use of 346 million euros and a provision made of 41 million euros for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

The **provision for risks and charges on investments and corporate-related transactions** increased by 1 million euros compared to December 31, 2021.

Other **provisions for risks and charges** increased by 8 million euros compared to December 31, 2021.

NOTE 21

MISCELLANEOUS PAYABLES AND OTHER NON-CURRENT LIABILITIES

Miscellaneous payables and other non-current liabilities consisted of the following at December 31, 2022:

(million euros)		12/31/2022	12/31/2021
Miscellaneous payables (non-current)			
Payables to social security agencies		381	437
Payables due to subsidiaries		12	5
Other payables to third parties		1	232
	(a)	**394**	**674**
Other non-current liabilities			
Deferred revenues from customer contracts (Contract liabilities)		84	85
Other deferred revenue and income		149	170
Capital grants		247	267
	(b)	**480**	**522**
Total	**(a+b)**	**874**	**1,196**

Miscellaneous payables (non-current)

This item decreased by 280 million euros compared to December 31, 2021 and mainly includes:

- **Payables to social security agencies** amounted to 381 million euros (437 million euros at December 31, 2021): related to the debt position in respect of the INPS for the application of Art. 4 of Law no. 92 of June 28, 2012 and former Art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed during the year by TIM S.p.A. with the trade unions (see the Note “Employee benefits expenses” for more details). Details are as follows:

(million euros)	12/31/2022	12/31/2021
Non-current payables		
Due from 2 to 5 years after the end of the reporting period	366	428
Due beyond 5 years after the end of the reporting period	15	9
	381	**437**
Current payables	**234**	**248**
Total	**615**	**685**

- **Payables to subsidiaries** amounted to 12 million euros (5 million euros at December 31, 2021): this item relates to the payables due for the adoption of the consolidated tax return in Italy;
- **Other payables to third parties**, equal to 1 million euros (232 million euros at December 31, 2021): the reduction of 231 million euros with respect to December 31, 2021 is consequent to the reversal of the third installment of substitute tax pursuant to Decree Law no. 104/2020, Art. 110, subsections 8 and 8 bis, as a result of the revocation of the realignment of goodwill.

Other non-current liabilities

The item, amounting to 480 million euros, fell by 42 million euros compared to December 31, 2021 and consisted of:

- **Deferred revenues from contracts with customers (contract liabilities)** of 84 million euros (85 million euros at December 31, 2021): the item is reversed to the income statement according to the duration of the contractual obligations between the parties, averaging 24 months; therefore, the balance as at December 31, 2022 will be reversed to the income statement generally by 2024. The item mainly includes:
  - deferred revenues for activation and installation fees charged on new customer contracts for 3 million euros: in this regard, it is noted that under IFRS 15 activation/installment revenue are allocated to other contract obligations and recognized throughout the period of performance of the contract, as they do not relate to separate performance obligations;
  - deferred revenues for subscription charges of access to the network of 21 million euros;
  - deferred revenues for subscription charges and rent and maintenance payments of 41 million euros;
  - deferred revenues for outsourcing charges for 17 million euros.
- **Other deferred revenues and income**, amounting to 149 million euros (170 million euros at December 31, 2021): these refer to contract liabilities deriving from contracts for the sale of transmission capacity (operating asset leases);
- **Capital grants** of 247 million euros (267 million euros at December 31, 2021): the item represents the component still to be released to the income statement based on the remaining useful life (estimated at around 18 years) of the assets that the grants refer to and is mainly connected to the realization of the infrastructures on the Ultrabroadband-UBB and Broadband-BB projects.

NOTE 22

TRADE AND MISCELLANEOUS PAYABLES AND OTHER CURRENT LIABILITIES

Trade and miscellaneous payables and other current liabilities at December 31, 2022 consisted of the following:

(million euros)		12/31/2022	*of which Financial Instruments*	12/31/2021	*of which Financial Instruments*
Trade payables					
Payables due to suppliers		3,431	*3,431*	3,012	*3,012*
Payables to other telecommunications operators		256	*256*	346	*346*
Payables due to subsidiaries		705	*705*	585	*585*
Payables to associates and joint ventures		22	*22*	177	*177*
Payables to other subsidiaries		36	*36*	39	*39*
	(a)	**4,450**	***4,450***	**4,159**	***4,159***
Miscellaneous payables					
Payables due to subsidiaries		72		92	
Payables to associates and joint ventures		—		—	
Payables to other related parties		21	—	21	—
Tax payables		101		74	
Payables to social security agencies		298		332	
Payables for employee compensation		169		121	
Other		146	*103*	1,953	*1,856*
Employee benefits (except for employee severance indemnities) for the current portion expected to be settled within 1 year		100		—	
Provisions for employee benefits (except for employee severance indemnities) for the current portion expected to be settled within 12 months		370		569	
	(b)	**1,277**	***103***	**3,162**	***1,856***
Other current liabilities					
Liabilities from customer contracts (Contract liabilities)		797	*129*	735	*107*
Other deferred revenue and income		24		29	
Other		30		26	
	(c)	**851**	***129***	**790**	***107***
Total	**(a+b+c)**	**6,578**	***4,682***	**8,111**	***6,122***

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

Trade payables

This item increased by 291 million euros compared to December 31, 2021, mainly as a result of the change in bills payable.

In particular, we report:

- trade payables to subsidiaries that amounted to 705 million euros: these relate to amounts due to FiberCop (350 million euros), Noovle S.p.A. Società Benefit (79 million euros), Telenergia (121 million euros), Telecom Italia Sparkle (37 million euros) for telecommunications services, TIM Retail (30 million euros), Olivetti S.p.A. Società Benefit (18 million euros), Telecontact (14 million euros), Telecom Italia Trust Technologies (13 million euros), TIM Servizi Digitali (12 million euros) and Telsy (30 million euros) for supply contracts;
- trade payables to associates that amounted to 22 million euros: relate to debt positions mainly due from the Italtel Group (11 million euros) and TIMFin (8 million euros);
- trade payables to related parties that amounted to 36 million euros: relate mainly to amounts due to the Havas group.

Miscellaneous payables

These amounted to 1,277 million euros and decreased by 1,885 million euros compared to December 31, 2021; they mainly comprise:

- tax payables, amounting to 101 million euros: these mainly refer to VAT payable (25 million euros), withholding tax payable to the tax authorities as withholding agent (68 million euros) and government concession tax payable (4 million euros);
- payables to social security agencies amounted to 298 million euros: these include the short-term portion of the payable due to the INPS for the application of Art. 4 of Law no. 92 of June 28, 2012 and former Art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed during the year by TIM S.p.A. with the trade unions, as specified in the note "Miscellaneous payables and other non-current liabilities";
- payables to subsidiaries of 72 million euros: these mainly relate to payables to FiberCop (25 million euros), Noovle S.p.A. Società Benefit (20 million euros), Telenergia (4 million euros), Telecom Italia Sparkle (12 million euros) and Olivetti S.p.A. Società Benefit (4 million euros). These include 10 million euros for consolidated tax returns (mainly due to Telecom Italia Sparkle, Telecontact, Telenergia, TIM Retail and Olivetti);
- employee benefits and provisions.

Other current liabilities

These amount to 851 million euros and mainly include:

- **The liability arising from contracts with customers (contract liabilities)**, amounting to 797 million euros (735 million euros at December 31, 2021): The item shows the liabilities from customers linked to the Company's obligations to transfer goods and services for which received a price. Liabilities with customers, generally with a maturity of up to 12 months, are shown below; therefore, the figure at December 31, 2022 will be substantially reversed by December 31, 2023. In particular:
  - **Contract Liabilities** amounting to 6 million euros (9 million euros at December 31, 2021); the item includes bundle contracts (good and services packages) with performance obligations with different timing for the recognition of revenues and consequent deferral of the fees originally recognized. The decrease recognized - of -3 million euros - was mainly linked to the presence of commercial offers that no longer require a fixed duration and the reversal to the income statement of the balance previously accumulated;
  - **Customer-related items** of 397 million euros (372 million euros at December 31, 2021): the item includes trade payables following contractual relationships, such as the payable for prepaid traffic and the subscription charges charged in advance;
  - **Advance receipts and payments** amounting to 53 million euros (62 million euros at December 31, 2021): the item includes trade payables following prepayments, such as deposits made by subscribers for phone calls;
  - **Deferred revenues from contracts with customers** of 341 million euros (291 million euros at December 31, 2021): the item refers to the deferral of revenues from customers contracts and mainly includes:
    - deferred revenues on activation and installation of new contracts with customers (4 million euros);
    - deferred revenues for interconnection charges (111 million euros);
    - deferred revenues for rent and maintenance (193 million euros).
- **Other deferred revenues and income**, amounting to 24 million euros (29 million euros at December 31, 2021): these refer for 23 million euros to contract liabilities deriving from contracts for the sale of transmission capacity.
- **Other income** amounted to 30 million euros (26 million euros at December 31, 2021): this relates to payables for advances on work in progress on networks.

NOTE 23

DISPUTES AND PENDING LEGAL ACTIONS, OTHER INFORMATION, COMMITMENTS AND GUARANTEES

A description is provided below of the most significant judicial, arbitration and tax disputes in which TIM S.p.A. was involved at December 31, 2022, as well as those that came to an end during the year.

The Company has posted liabilities totaling 279 million euros for those disputes described below where the risk of losing the case has been considered probable.

It should be noted that for some disputes described below, on the basis of the information available at the closing date of the Annual Financial Report and with particular reference to the complexity of the proceedings, to their progress, and to elements of uncertainty of a technical-trial nature, it was not possible to make a reliable estimate of the size and/or times of possible payments, if any. Moreover, in those cases in which disclosure of information on a dispute could seriously jeopardize the position of TIM or its subsidiaries, only the general nature of the dispute is described.

Lastly, as regards the proceedings with the Antitrust Authority, please note that based on Article 15, subsection 1 of Italian Law 287/1990 ("Antitrust regulations"), the Authority has the right to impose an administrative sanction calculated on the turnover of the Company in cases of breaches considered serious.

a) Significant disputes and pending legal actions

Golden Power Case

In August 2017 the Prime Minister's office brought proceedings against TIM (as well as Vivendi) in order to verify the fact that TIM has an obligation to notify, pursuant to the "Golden Power" law, Vivendi's acquisition of corporate control of TIM and the strategic assets it holds. In September 2017, the proceedings in question concluded by affirming that this obligation did exist for TIM with effect from May 4, 2017 (the date of the Shareholders' Meeting that renewed TIM's corporate boards).

As a result of this decision by the Presidency of the Council of Ministers, new and separate administrative proceedings started for the imposition on TIM of the financial penalty laid down by the Golden Power law for non-compliance with the aforementioned obligation to notify. These proceedings ended on May 8, 2018 with the imposition of a financial penalty of 74.3 million euros.

The Company, is convinced that it has the legal arguments to demonstrate that it was under no obligation to notify the control exercised over it by Vivendi, filed separate extraordinary appeals to the President of the Republic to request the abrogation of the order of September 2017 and before the Lazio Regional Administrative Court (TAR) against the aforementioned order of May 8, 2018, which imposed a financial penalty, requesting its precautionary suspension. As regards the appeal to the Lazio Regional Administrative Court (TAR) against the provision of May 8, 2018, which imposed the financial penalty, the TAR, in upholding in July 2018 the interim petition lodged by the Company, has suspended payment of the penalty. Subsequently, with a non-definitive ruling in May 2019, the Lazio Regional Administrative Court (TAR): (i) accepted TIM's request for provisional measures to suspend the fine conditional on the offer of the guarantee; (ii) granted the suspension of the procedure to wait for the final judgment in the (injurious) case pending before the President of the Republic regarding the notification obligation, pursuant to the Golden Power provisions; (iii) rejected the procedural objections raised by the defendant administrations.

It should also be noted that in May 2018 a guarantee bond for 74.3 million euros was issued in favor of the Presidency of the Council. TIM had been requested to submit such a bond for its application to Lazio TAR for precautionary suspension of the collection of the fine imposed for alleged breach of Art. 2 of Decree Law 21 of March 15, 2012 (the "Golden Power" law). This surety was renewed in November 2022.

Furthermore, TIM appealed before the Lazio TAR and then appealed before the Council of State against the provision with which Consob, on September 13, 2017, affirmed Vivendi's control over TIM. In December 2020, the Council of State issued a final judgment upholding TIM's appeal and canceling the provision by Consob, a significant premise to the entire subsequent proceedings of the Presidency of the Council in relation to the obligation to Golden Power notification as described above. On June 14, 2021, Consob submitted an extraordinary appeal to the Court of Cassation on grounds of jurisdiction; TIM filed an appearance, objecting that the appeal is unlawful and inadmissible. Following the hearing in chambers held on October 11, 2022, on January 24, 2023, the order was published whereby the Court of Cassation declared that Consob's petition was unacceptable, consequently ordering it to pay the dispute expenses.

Antitrust Case A428

At the conclusion of case A428, in May 2013, AGCM (the Italian Competition Authority)imposed two administrative fines of 88,182,000 euros and 15,612,000 euros on TIM for abuse of its dominant position. The Company allegedly (i) hindered or delayed activation of access services requested by OLOs through unjustified and spurious refusals; (ii) offered its access services to final customers at economic and technical conditions that allegedly could not be matched by competitors purchasing wholesale access services from TIM itself, only in those geographic areas of the Country where disaggregated access services to the local network are available, and hence where other operators can compete more effectively with the Company.

TIM appealed against the decision before the Regional Administrative Court (TAR) for Lazio, applying for payment of the fine to be suspended. In particular, it alleged: infringement of its rights to defend itself in the proceedings, the circumstance that the organizational choices challenged by AGCM(the Italian Competition

Authority) and allegedly at the base of the abuse of the OLO provisioning processes had been the subject of specific rulings made by the industry regulator (AGCom), the circumstance that the comparative examination of the internal/external provisioning processes had in fact shown better results for the OLOs than for the TIM retail department (hence the lack of any form of inequality of treatment and/or opportunistic behavior by TIM), and (regarding the second abuse) the fact that the conduct was structurally unsuitable to reduce the margins of the OLOs.

In May 2014, the judgment of the Lazio TAR was published, rejecting TIM's appeal and confirming the fines imposed in the original order challenged. In September 2014 the Company appealed against this decision.

In May 2015, with the judgment no. 2497/15, the Council of State found the decision of the court of first instance did not present the deficiencies alleged by TIM and confirmed the AGCM (the Italian Competition Authority) ruling. The company had already proceeded to pay the fines and the accrued interest.

In a decision notified in July 2015, AGCM (the Italian Competition Authority) started proceedings for non-compliance against TIM, to ascertain if the Company had respected the notice to comply requiring it to refrain from undertaking behaviors analogous to those that were the object of the breach ascertained with the concluding decision in case A428 dated May 2013.

On January 13, 2017, TIM was served notice of AGCM's final assessment, which recognized that TIM had complied in full with the A428 decision and, as such, the conditions for the imposition of a fine for non-compliance were not present.

AGCM (the Italian Competition Authority) recognizes, furthermore, that TIM's behavior subsequently to the 2013 proceedings has been directed towards continuous improvement of its performance in the supply of wholesale access services concerning not only the services which were the subject of the investigation, but also the new Ultrabroadband access services. In assessing compliance, AGCM (the Italian Competition Authority) recognized the positive impact of the implementation, albeit not yet completed, of TIM's New Equivalence Model (NME). The AGCM (the Italian Competition Authority) decision orders TIM to: (i) proceed with the implementation of the NME until its completion which is expected to be by April 30, 2017; (ii) to inform the Authority about the performance levels of the systems for providing wholesale access services and about the completion of the corresponding internal reorganization plan by the end of May 2017. The Company quickly complied with both orders, and the Authority communicated its satisfaction on August 9, 2017.

Vodafone lodged an appeal with the Lazio Regional Administrative Court against the final decision in the proceedings for non-compliance taken by AGCM (the Italian Competition Authority). TIM filed an appearance, as in the other lawsuits filed in March 2017 by the operators CloudItalia, KPNQWest Italia and Digitel. With judgments 311 and 312/23 respectively of January 11, 2023, the regional administrative court rejected the appeals lodged by KPNQWest and CloudItalia.

Colt Technology Services - A428

With writ of summons before the Milan Court served in August 2015, the operator Colt Technology Services filed a damages claim based on the A428 decision, requesting compensation for alleged damages suffered from 2009 to 2011 as a result of purportedly inefficient and discriminatory conduct by TIM in the wholesale service supply process. The damage claimed was quantified as 27 million euros in loss of profits for the alleged non-acquisition of new customers, or for the alleged impossibility of supplying new services to the customers it had already acquired; the other party also formulated a request for compensation for the damages to its image and commercial reputation. This case follows the extrajudicial claim for approximately 23 million euros, previously advanced by Colt in June 2015, which the Company rejected in its entirety. TIM filed an appearance, contesting all of the plaintiff's allegations. The case is currently reserved for decision.

COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.) - A428

With writ of summons before the Rome Court, COMM 3000 S.p.A.(formerly KPNQWest Italia S.p.A.) filed a damages claim for a total of 37 million euros in compensation for alleged anticompetitive and abusive conduct over the period 2009-2011, in the form of technical boycotting (refusals to activate wholesale services – KOs); the claim was based on the contents of the decision of AGCM (the Italian Competition Authority) that settled the A428 case. TIM filed an appearance, contesting all of the plaintiff's allegations. In the judgment with ruling in April 2019, the Court of Rome partially received the petitions of COMM 3000 S.p.A. (formerly KPNQWest Italia S.p.A.), sentencing TIM to pay an amount significantly lower than the amount in the counterparty's damages claim. In June 2019, TIM appealed against the judgment. In the judgment given in April 2021, the Court of Appeal of Rome partly upheld TIM's appeal, reducing the amount of the compensation due to COMM 3000, which was in any case entirely covered by the relevant provision. In November 2021, TIM has appealed to the Court of Cassation over the judgment of the Court of Appeal of Rome in. The company is awaiting scheduling of the hearing for discussion.

Teleunit

With a writ of summons issued in October 2009 before the Milan Appeal Court, Teleunit asked that TIM alleged acts of abuse of its dominant position in the premium services market be ascertained. The plaintiff quantified its damages at a total of approximately 362 million euros. TIM filed an appearance, contesting the claims of the other party.

After the ruling of January 2014 with which the Court of Appeal declared that it was not competent in this matter and referred the case to the Court, Teleunit reinstated the case before the Milan Court the following April. TIM filed an appearance in the reinstated proceedings challenging the plaintiff's claims.

In its judgment of May 2017, the Milan Court rejected Teleunit's claim in its entirety, and ordered the company to pay the legal costs of the case. This judgment was appealed by Teleunit, in June 2017, before the Milan Court of Appeal. TIM filed an appeal challenging the arguments presented by the other party and asking that the judgment in the first instance be fully confirmed. With an order in March 2018 the Milan Court of Appeal declared Teleunit's appeal pursuant to art. 348-bis of the Italian Code of Civil Procedure to be manifestly without foundation, and hence inadmissible. In May 2018 Teleunit appealed the judgment of the Court of Appeal to the Court of Cassation. TIM lodged a counter-appeal seeking confirmation in full of the order being appealed (and thus of the judgment at first instance). The hearing was held in chambers on September 22, 2022. By order published on October 19, 2022, the Court of Cassation declared the petition lodged by Teleunit Ltd inadmissible, ordering it to pay the costs of the dispute to TIM.

Eutelia and Clouditalia Telecomunicazioni - A428

With a writ of summons dated May 2020, Eutelia in Extraordinary Administration and Clouditalia Telecomunicazioni S.p.A., purchaser of Eutelia's TLC branch, brought an action against TIM before the Court of Rome, making claims for damages, of around 40 million euros, for damages allegedly suffered, in the period 2009-2012, following the technical boycott and margin squeeze conduct, subject of the AGCM A428 procedure. TIM filed an appearance, contesting the claims made by the opposing party and formulating a counterclaim, subject to quantification of the damages incurred during the proceedings. On April 1, 2022, AGCM (the Italian Competition Authority) deposited the opinion envisaged by Art. 14, third subsection of Italian Legislative Decree 3/2017, whereby it: (i) proposed certain benchmarks for use to define the counterfactual scenario on which basis to quantify the damages allegedly suffered by Eutelia and Clouditalia; (ii) provided some additional indication and criteria to estimate the various damage items demanded by Eutelia and Clouditalia. At the hearing held on June 15, 2022, the Investigating Judge assigned time to the parties until July 8, 2022, by which to deposit written notes on the implications of the opinion of the AGCM (the Italian Competition Authority) and the contents of any queries to be raised with the court appointed expert. On October 24, the judge lifted the reservation and ordered an expert report on the an of TIM's conduct and the quantum of any damages suffered by Eutelia and Irideos as a result of such. On November 15, 2022, the court-appointed expert witness was sworn in. The public hearing for the examination of the court-appointed expert witness has been scheduled for October 18, 2023.

Antitrust Case A514

In June 2017 AGCM (the Italian Competition Authority) started proceedings A514 against TIM, to ascertain a possible abuse of its dominant market position in breach of article 102 of the "Treaty on the Functioning of the European Union". The proceedings were started based on some complaints filed in May and June 2017, by Infratel, Enel, Open Fiber, Vodafone and Wind Tre, and concerns a presumed abuse of TIM's dominant position in the market for wholesale access services and for retail services using the Broadband and Ultrabroadband fixed network. In particular, the AGCM (the Italian Competition Authority) hypothesized that TIM had adopted conduct aimed at: i) slowing and hindering the course of the Infratel tender processes so as to delay, or render less remunerative the entry of another operator in the wholesale market; ii) pre-emptively securing customers on the retail market for Ultrabroadband services by means of commercial policies designed to restrict the space of customer contendibility remaining for the competitor operators.

After the start of the proceedings, the Authority's officials carried out an inspection at some of TIM's offices in the month of July 2017. On November 2, 2017, TIM filed a defense brief in which, in support of the correctness of its actions, it challenged all the arguments that the conduct it had allegedly engaged in, and which was the subject of the case, was unlawful.

On February 14, 2018, AGCM (the Italian Competition Authority) resolved to extend the scope of the case to investigate further behavior concerning TIM's wholesale pricing strategy on the market for wholesale access to Broadband and Ultrabroadband, and the use of the confidential information of customers of the alternative operators.

On July 5, 2018 TIM filed proposed undertakings which, if accepted by the Authority, would close the investigation without any offense being established or sanction being administered. The undertakings were considered as admissible by the Authority, that market tested them in August and September.

On October 30, 2018, TIM replied to observations made by third parties and modified its proposed undertakings. With its decision notified on December 4, 2018, AGCM (the Italian Competition Authority) once and for all rejected the proposed series of undertakings as it considered them unsuitable in light of the objections raised.

On March 4, 2019, TIM requested AGCM (the Italian Competition Authority) for an extension of the deadline for closing the proceedings (initially set for May 31, 2019).

On April 10, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until September 30, 2019. On May 17, 2019, AGCM (the Italian Competition Authority) notified TIM of the results of the investigation (CRI). In the CRI, AGCM (the Italian Competition Authority) essentially confirmed the case for the prosecution outlined in the start-up and extension of the proceedings orders.

On June 12, 2019 AGCM (the Italian Competition Authority) extended the deadline for deposit of TIM's final defense to September 20, 2019 and set the final hearing for September 25, 2019.

On September 18, 2019, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until February 28, 2020.

On March 6, 2020, TIM was notified of the decision to close the investigation: AGCM (the Italian Competition Authority) ruled that TIM had abused its dominant position, finding that TIM had put in place an anti-competitive strategy designed to hinder the competitive development of investment in Ultrabroadband network infrastructure. The fine imposed on TIM for the anti-competitive offense is 116,099,937.60 euros.

On June 25, 2020 TIM sent AGCM (the Italian Competition Authority) the so-called compliance report as ordered in the final provision.

In May 2021, the Company in any case paid the fine.

TIM appealed the aforementioned fine before the Lazio Regional Administrative Court (TAR). By judgment 1963/2022 of February 28, 2022, TIM's appeal was rejected; TIM has appealed to the Council of State against the decision of the regional administrative court.

In August 2022, Irideos notified a deed of intervention ad opponendum with respect to TIM's principal appeal.

The related hearing for oral discussion is scheduled for May 25, 2023.

Open Fiber

In March 2020, Open Fiber (OF) sued TIM before the Court of Milan, claiming damages of 1.5 billion euros for alleged abuse of an exclusive and dominant position in relation to OF. The alleged actions consist of: (i) pre-emptive investments in FTTC networks in white areas; (ii) initiating specious legal action to obstruct Infratel tenders; (iii) spurious repricing of certain wholesale services; (iv) commercial lock-in offers on the retail market; (v) false disclosure to AGCom in connection with the approval of a wholesale offer and spreading rumors about TIM being interested in acquiring OF; (vi) discriminatory access conditions to TIM passive infrastructure. TIM filed an appearance, contesting the arguments of OF. Enel S.p.A. intervened in the proceedings, asking that TIM be ordered to compensate all damages suffered and being suffered by Enel and OF, without, however, quantifying such. During the course of proceedings, Open Fiber redetermined the damage allegedly suffered, taking it to 2.6 billion euros plus interest and monetary revaluation. Open Fiber has also clarified that it believes such damages are still to be suffered. Enel then quantified the damages allegedly suffered as approximately 228 million euros, plus interest. On October 19, 2022, the hearing was held for admission of the evidence, after which the judge reserved the right to deliberate.

Irideos

In January 2022, Irideos summonsed TIM to the Court of Rome, making a claim for damages allegedly suffered as a consequence of the unlawful conduct of TIM, as sanctioned by AGCM (the Italian Competition Authority), with the provision that concluded proc. A514 ("follow-on claim"). The compensation claim comes to 23,204,079.87 euros for damages caused by the anti-competitive behavior of TIM from 2017 to 2019 (with effects also in subsequent years) on the market for services of wholesale access to the Broadband and Ultrabroadband fixed network (the "wholesale market") and on the market for retail telecommunications services on the Broadband and Ultrabroadband fixed network (the "retail market"). TIM filed an appearance, contesting the opposing party's arguments. At the hearing held on June 1, 2022, the investigating judge (i) assigned the parties time for depositing the briefs with terms running from February 15, 2023 and (ii) deferred the case to the hearing of June 7, 2023.

Antitrust Case I799

At its meeting on February 1, 2017, AGCM (the Italian Competition Authority) initiated an investigation for possible breach of Article 101 of the TFEU (prohibition of agreements that restrict competition) against TIM S.p.A. and Fastweb S.p.A., following the signing of an agreement aimed at setting up a cooperative joint venture called Flash Fiber S.r.l.. TIM, in agreement with Fastweb, submitted to AGCM (the Italian Competition Authority) some amendments to the agreements signed, in the form of proposed undertakings, aimed at closing the investigation without any breach being ascertained and, therefore, without any fine.

On March 28, 2018, AGCM (the Italian Competition Authority) resolved to approve the undertakings, making them binding on the Parties, and closed the case without imposing any fine.

On January 30, 2019, TIM sent the planned annual report on the provided coverage to AGCM (the Italian Competition Authority), supplemented by a subsequent communication dated March 29, 2019. TIM transmitted further details to AGCM (the Italian Competition Authority) in July and AGCM acknowledged it on October 15, 2019. On January 31, 2020 TIM sent AGCM (the Italian Competition Authority) the third report on the implementation of the undertakings given. Finally, on January 29, 2021 TIM sent AGCM (the Italian Competition Authority) the fourth and final report on the implementation of the undertakings given.

On June 11, 2018 Open Fiber S.p.A. and Wind Tre S.p.A. filed separate appeals to the Lazio Regional Administrative Court (TAR) against the order closing case I799 with the acceptance of the undertakings. They allege that this order has a series of procedural and substantial defects.

Open Fiber S.p.A. also asked for the precautionary suspension of the order. In a ruling of March 2020, the Regional Administrative Court rejected in full the appeal by Open Fiber.

The hearing for discussion of the merits of Wind Tre's appeal was held on October 12, 2022 and the Regional Administrative Court published the judge's extinguishing order on October 23. The judgment has therefore been settled.

Eutelia and Voiceplus

In June 2009, Eutelia and Voiceplus asked that alleged acts of abuse by TIM of its dominant position in the premium services market (based on the public offer of services provided through so-called Non Geographic Numbers) be investigated. The complainants quantified their damages at a total of approximately 730 million euros.

The case follows a precautionary procedure in which the Milan Appeal Court prohibited certain behaviors of the Company relating to the management of some financial relations with Eutelia and Voiceplus concerning the Non Geographic Numbers, for which TIM managed the payments from the end customers, on behalf of such OLOs and in the light of regulatory requirements. After the ruling with which the Milan Court of Appeal accepted TIM's objections, declaring that it was not competent in this matter and referring the case to the Civil Court, Eutelia in extraordinary administration and Voiceplus in liquidation resubmitted the matter to the Milan Court. The first hearing took place in the month of March 2014. TIM filed an appearance challenging the claims of the other parties. After the collapse of Voiceplus, the Milan Court declared the case suspended, in an order in September 2015. The case was later resumed by Voiceplus.

With a judgment issued in February 2018, the Milan Court accepted TIM's defense and rejected the plaintiffs' claim for compensation, ordering them, jointly and severally, to pay the legal costs. In March 2018 Eutelia and Voiceplus proposed an appeal against the judgment in the first instance.

TIM appealed against the claim, requesting confirmation in full of the judgment in the first instance. The appeal of Eutelia and Voiceplus was fully rejected with the judgment of August 5, 2019. In December 2019 Eutelia and Voiceplus appealed to the Court of Cassation over the judgment of the Court of Appeal. TIM notified a counterclaim asking confirmation of the ruling appealed against. The hearing in chambers is scheduled for February 16, 2023.

28 day billing

AGCom resolution 121/17/CONS introduced instructions on billing intervals for telephony, prescribing, for fixed telephony, that the interval should be monthly, or multiples thereof, and, for mobile telephony, that it should be at least four-weekly. TIM appealed Resolution 121/17/CONS to the Regional Administrative Court. The judgment rejecting the appeal was published in February 2018. TIM appealed this judgment to the Council of State in June 2018. On September 23, 2020, the non-definitive ruling was published whereby the Council of State joined the appeals submitted by TIM, Vodafone, Fastweb and Wind Tre and ordered the prejudicial deferral to the European Union Court of Justice (EUCJ) on whether or not the Authority had the power to regulate the frequency of renewal of the commercial offers and invoicing periods, at the same time rejecting the other grounds of appeal submitted by the operators and suspending proceedings. In February 2021, TIM deposited the written observations on the requests for prejudicial judgment with the EUCJ. On the request of the EUCJ, the Council of State, by order published on November 23, 2021, confirmed the referral to the Court of Justice on the prejudicial matters raised; on December 15, 2022, the conclusions were submitted of the general attorney and we are now awaiting the decision of the EUCJ; the case before the Council of State is therefore currently on hold.

With its Resolution 499/17/CONS, having confirmed the breach of Resolution 121/17/CONS, AGCom fined TIM 1,160,000 euros, ordering it to make provision – when the billing cycle was restored to monthly intervals or multiples thereof – to return the amounts corresponding to the fee for the number of days that, from June 23, 2017, had not been used by the users in terms of the supply of service due to the misalignment of the four-weekly and monthly billing cycles.

In March 2018 with resolution no. 112/18/CONS AGCom (i) revoked the preceding resolution 499/17/CONS in the part in which TIM was ordered to repay the amounts presumably lost from June 23, 2017 onwards, with the four-weekly billing cycle, (ii) cautioned TIM, with regard to fixed-line voice services only, against postponing the starting date of invoices issued after the return to monthly invoicing by the same number of days as those presumably deducted starting from June 23, 2017 with the four-weekly invoicing cycle.

Under Presidential Decree 9/18/PRES, AGCom amended the provisions of Decision 112/18/CONS requiring the deferment of billing once the billing cycle was restored to monthly intervals, or multiples thereof, while also ordering that the timescales for complying with the order would be identified after hearings with the operators and the main consumer protection associations.

In July 2018, AGCom issued resolution 269/18/CONS, with which it set December 31, 2018 as the date by which the operators had to return to their fixed network customers a number of days of service equal to those eroded as an effect of 28-day billing, or propose to the affected customers any alternative compensatory measures, after having notified them to AGCom. TIM has appealed all of the above resolutions.

With the judgment published in November 2018, the Regional Administrative Court (TAR) canceled the pecuniary administrative sanction of 1.16 million euros imposed with Resolution 499/17/CONS, and confirmed the obligation of *restitutio in integrum* to the fixed-line customers by December 31, 2018, the grounds for the judgment were instead published on May 10, 2019. The Council of State has deferred discussion of the case to November 10, 2023, awaiting the decision of the EU Court on the Community compatibility of the power exercised by AGCom to impose a billing period of no less than a month.

In September 2019, TIM also challenged resolution 221/19/CONS, before the Regional Administrative Court (TAR), with which the sanction pursuant to Resolution 499/17/CONS, canceled by the Regional Administrative Court of Lazio, was recalculated to the amount of 580,000.00 euros, with the maximum fine provided for by Art. 98, subsection 16 of the CCE in force at the time of the events applied. We are waiting for a date to be fixed for the discussion hearing.

In August 2019, AGCom initiated new proceedings (CONT 12/19/DTC) for failure to comply with the order to refund the days eroded by billing every 28 days for fixed network and convergent customers, according to the procedures established with resolutions nos. 112/18/CONS and 269/18/CONS. On conclusion of these proceedings, by means of Resolution 75/20/CONS, the Authority found that TIM did not comply with the above resolutions, imposing a fine of 3 million euros. The measure was challenged by TIM before the TAR in July 2020. We are waiting for a date to be fixed for the discussion hearing.

Moreover, since June 2019, TIM has offered its fixed network customers, active prior to March 31, 2018 and subject to billing every 28 days, the possibility of accepting a compensatory solution, an alternative to refunding the eroded days pursuant to AGCom resolution no. 269/18/CONS and from September 2019 it has been accepting requests for reimbursement of eroded days. In both cases, TIM informed customers with several messages in the bill, on the web in the main newspapers. The initiatives just described were communicated to AGCom as part of the aforementioned penalty proceedings.

In the civil proceedings, by judgment published on October 14, 2021 the Court of Milan, under the scope of the case on the merits brought by Associazione Movimento dei Consumatori in 2018 regarding the pricing and 28-day renewal for fixed line and converging offers, confirmed the order given on June 4, 2018 by the same Court upon closure of the complaint brought by TIM pursuant to Art. 669 terdecies of the Italian Code of Civil Procedure and the measures set out therein, ordering TIM to fulfill the requests for repayment of prices paid as a result of customer maneuvers - including discontinued, as indeed TIM had already been doing since 2018, at the same time also extending the period relevant to the recognition of the reimbursement through to April 1, 2017 and therefore earlier than June 23, 2017, the date on which the operators will need to comply with Resolution no. 121/17/CONS. TIM has appealed the judgment of the Court of Milan, at the same time filing a request for suspension of its enforcement. With order of January 11, 2022, the Court of Appeal of Milan partially accepted TIM's request, suspending the charge in the judgment relating to the order to send a registered letter to all discontinued customers that were subject to billing every 28 days to inform them of the possibility to obtain a refund of the additional amounts paid as a result of the maneuver. By judgment published on December 9, 2022, the Milan Court of Appeal confirmed the first instance judgment in full. On January 12, 2023, TIM notified the appeal to the Court of Cassation and on January 16, 2023 it also filed the appeal pursuant to Art. 373 of the Italian Code of Civil Procedure with the Milan Court of Appeal, asking that enforcement of the ruling be suspended until the judgment pending before the Court of Cassation had been settled. By order of February 14, 2023, the Milan Court of Appeal, in partially upholding TIM's appeal, ordered suspension of the judgment in connection with the order to send the recorded delivery letters to former customers, whilst awaiting the decision of the Supreme Court.

Antitrust Case I820

On February 19, 2018, AGCM (the Italian Competition Authority) initiated a I820 preliminary proceeding against the companies TIM, Vodafone, Fastweb, Wind Tre and the industry association ASSTEL to investigate the alleged existence of an agreement among the major fixed-line and mobile telephone operators to restrict competition by coordinating their respective commercial strategies, in breach of Art. 101 of the TFUE.

The presumed coordination, according to the opening provision of the proceedings by AGCM (the Italian Competition Authority), would take the form of implementation of the obligation introduced by Article 19-quinquiesdecies of Legislative Decree 148/2017 (converted by Law 172/2017) which requires operators of electronic communication services to send out monthly (or monthly multiples) bills and renewed offers for fixed and mobile services.

On March 21, 2018, AGCM (the Italian Competition Authority) issued a provisional precautionary measure against all the operators involved in the proceedings with which it ordered the suspension, pending the proceedings, of the implementation of the agreement concerning the determination of repricing communicated to users at the time of reformulating the billing cycle in compliance with Law 172/17 and to independently redetermine its commercial strategy. With its decision no. 27112 of April 11, 2018, AGCM (the Italian Competition Authority) confirmed the precautionary measure.

On June 12, 2018, TIM filed an appeal with the TAR for the quashing of said measure.

On January 31, 2020, TIM was notified of the decision to close the investigation, in which AGCM (the Italian Competition Authority) confirmed the existence of the agreement between Telecom, Vodafone, Fastweb, Wind Tre, but excluding Asstel from participation in the agreement. The fine imposed on TIM for participation in the anti-competitive agreement was 114,398,325 euros. In April 2020, TIM also challenged the sanction order.

In a ruling published on July 12, 2021, the Lazio Regional Administrative Court upheld the petition and the grounds added and submitted by TIM, canceling the measures taken by AGCM (the Italian Competition Authority), including that relating to the existence of the agreement and application of the sanction.

On September 11, 2021, AGCM (the Italian Competition Authority) presented a petition to the Council of State, requesting the cancellation of the judgment given by the regional administrative court; following the hearing for discussion held on January 26, 2023, we are currently awaiting decision.

Antitrust Case I850

By decision given on December 15, 2020, AGCM (the Italian Competition Authority) started an investigation in regard to the company Telecom Italia S.p.A., Fastweb S.p.A., Teemo Bidco S.r.l., FiberCop S.p.A., Tiscali Italia S.p.A. and KKR & Co. Inc., to ascertain the existence of any breaches of article 101 of the TFEU in relation to the coinvestment offer.

More specifically, the investigation regards the contracts governing the establishment and operation of FiberCop and the supply agreements with Fastweb and Tiscali. AGCM (the Italian Competition Authority) intends to verify that such agreements do not hinder competition between operators in the medium and long-term and assure the rapid modernization of the country's fixed telecommunications infrastructures.

On August 6, 2021, TIM submitted a proposal of undertakings to AGCM (the Italian Competition Authority) in order to resolve the competition concerns subject of the investigation and close the proceedings without any sanction being applied.

On September 7, 2021, AGCM (the Italian Competition Authority) judged these commitments to not be clearly unfounded and ruled publication on the Authority's website from September 13, 2021; thus market testing began and was completed by October 13, 2021, the date by which all subjects so wishing submitted their observations to AGCM in respect of the relevant commitments.

On December 14, 2021 AGCM (the Italian Competition Authority) extended the deadline for the conclusion of the proceedings, initially set for December 31, 2021, to February 15, 2022.

Precisely during the meeting held on February 15, 2022, AGCM (the Italian Competition Authority) finally resolved to approve the commitments insofar as they were considered suitable to eliminate the alleged anti-competition aspects investigated.

As envisaged by the final ruling, on April 22, 2022, TIM sent AGCM a first report on the measures taken to fulfill the commitments made.

On May 11, 2022, AGCM notified TIM of its acknowledgment of the measures presented in such report.

On January 31, 2023 TIM sent AGCM (the Italian Competition Authority) a second report on the implementation of the undertakings given.

By petition notified in April 2022. Open Fiber has challenged the above AGCM provision no. 3002, whereby the proceedings were closed, before the regional administrative court of Lazio; the petitioner believes that the commitments, made mandatory by the closure, are not sufficient to remove the anticompetitive aspects identified at the start of proceedings.

Upon completion of the interim hearing of last June 1, the regional administrative court rejected the request and scheduled the merits hearing for January 25, 2023. At the January 26 hearing, after extensive discussion, the judge reserved the right to deliberate.

Antitrust Case I857

On July 6, 2021, AGCM (the Italian Competition Authority) started an investigation in regard to TIM and DAZN for a possible understanding reached with a view to restricting competition in connection with the agreement for the distribution and technological support for TV rights for Serie A football in the 2021-2024 period.

The investigation also aims to verify the restrictive nature of the understanding with reference to additional elements regarding the possible adoption by TIM of technical solutions not available for competitor telecommunications operators and which may effectively hinder the adoption of their own technological solutions.

At the same time, the Authority has also initiated proceedings for the potential adoption of protective measures.

By resolution passed on July 27, 2021, AGCM (the Italian Competition Authority) closed the interim proceedings, considering that the initiatives and amendments to the agreement proposed by TIM and DAZN in the meantime are presently able to prevent any serious and irreparable damage to competitors while investigations are completed.

Indeed, said measures aim, as a whole, to avoid possible discrimination in the use of the DAZN service, due to its activation by users using Internet connection services other than those offered by TIM. In addition, the agreement between TIM and DAZN has been amended to guarantee DAZN complete freedom in applying discounts and promotions. TIM has also undertaken to provide DAZN with a sufficient number of white label set-top-boxes to also guarantee DAZN customers the viewing of matches over digital terrestrial TV, in the event of connection problems.

Finally, TIM has undertaken to supply wholesale services to OAOs interested therein to manage traffic peaks deriving from live data transmissions, regardless of the type of content transmitted.

On October 29, 2021 TIM submitted a proposal for undertakings to AGCM (the Italian Competition Authority) with a view to resolving the competitive concerns that were the subject of the investigation and closing the proceedings without the finding of any infringement and therefore without any sanction being applied.

On December 14, 2021, AGCM (the Italian Competition Authority) approved the publication of the aforementioned proposal for undertakings on the Authority's website, as these undertakings, taken as a whole, do not appear to be manifestly unfounded and are capable of removing the restrictions to competition hypothesized in the measure initiating the investigation in question.

On January 5, 2022, with the publication on the AGCM website, market testing began.

The deadline for rebuttal arguments and proposing any accessory amendments to the commitments presented by TIM and DAZN is scheduled for March 7.

On February 23, 2022, TIM and DAZN were convened separately to the AGCM offices. During the hearing, the Offices informed TIM - and thereafter confirmed this in the hearing meetings - that in a hearing held on February 15, the Board deemed it necessary to make certain “accessory” changes in order to approve the commitments submitted.

On March 4, 2022, TIM and DAZN requested an extension of the deadline for the submission of observations, also in view of the new aspects that had emerged on February 23. The new deadline was set as March 23.

On March 22, 2022, TIM informed the Authority that the additional changes considered necessary by the Board to approve the commitments would have entailed a complete overhaul of the contents and economic balance of the agreements signed by TIM and DAZN, such as to make it no longer possible to pursue the hypothesized business model. At the same time, TIM informed the Authority of the start of negotiations with DAZN possibly concerning the revision of the distribution exclusivity clause, which was the main object of the Authority's investigation. Considering the complexity of negotiations, TIM requested an extension of another 30 days for submission of observations. The extension was authorized and the new deadline set as April 23.

On April 20, 2022, in consideration of the extension of negotiations, also due to the complexity and economic relevance of that being negotiated, DAZN and TIM requested an additional extension. The new deadline was set as May 9.

On May 9, 2022, TIM informed the Authority that it had declared willing to DAZN to waive the exclusivity of the distribution of Serie A football rights, as currently regulated by the Deal Memo, with DAZN consequently having the faculty to distribute such rights also through third party operators and that, in exchange for the willingness to waive this right, the Parties had begun negotiations for a review of the contracted economic commitment envisaged by TIM.

On June 7, 2022, the Authority ruled on the rejection of the commitments submitted, which “would appear, both where considered comprehensively and individually, to be unable to eliminate the anticompetitive aspects identified in the resolution that started the proceedings, insofar as they do not resolve the competition concerns highlighted in the initial proceedings, where not translated into shared contractual amendments such as to eliminate the critical competition issues” highlighted by the Authority.

Again on June 7, 2022, the Authority ruled on the deferral of the deadline for the conclusion of proceedings to March 31, 2023.

On August 2, 2022, TIM informed the Antitrust Authority that it had reached a new agreement with DAZN, under which the latter has the faculty to distribute football rights through any third party, surpassing the previous system of exclusivity in TIM's favor.

On January 20, 2023, notification was given of the investigation results (CRI).

AGCM (the Italian Competition Authority) believes that the agreement reached on January 27, 2021 (the “Deal Memo”) had contents and resulted in effects that reduced competition for its entire duration (and therefore until stipulation of the new agreement on August 3, 2022).

On January 31, 2023, AGCM (the Italian Competition Authority) resolved to extend the deadline for conclusion of the proceedings until May 31, 2023.

TIM will be able to submit its defense brief by March 28, while the final hearing before the authority has been scheduled for April 4, 2023.

Antitrust Case A556

On November 30, 2022, AGCM (the Italian Competition Authority) started proceedings against TIM in order to verify the existence of an abuse of a dominant position in breach of Art. 3 of Law no. 287/90.

The proceedings stem from a report made by Fastweb concerning TIM's refusal to grant Fastweb its radio mobile signal coverage maps that had been requested in order to take part in the "Open tender for mobile telephone services for public authorities - Edition 9 - Sigef ID 2452" (Consip TM9 tender).

The authority simultaneously also launched precautionary sub-proceedings in accordance with Article 14-bis of Law No. 287/1990, aiming to verifying the existence of precautionary measures aiming to protect competition.

On December 20, 2022, the authority resolved that there were no grounds on which to take precautionary measures, in accordance with Art. 14-bis of Law no. 287/90 and thus closed the precautionary sub-proceedings, rejecting Fastweb's appeal.

Completion of the main proceedings has instead been scheduled for the coming December 1, 2023.

Antitrust Case PS 10888 "TIM Passepartout"

On June 15, 2021, AGCM (the Italian Competition Authority) initiated proceedings against TIM for unfair commercial practice concerning the lack of transparency of the information provided by the TIM Passepartout payment management platform and alleged activations of services not requested. Although firmly convinced of the lawful nature of its conduct, on July 29, 2021, TIM chose to submit undertakings with corrective measures. The undertakings submitted consist of improving information aspects noted as falling short of expectations of the TIM Passepartout platform (only operative for customer base offers) and in implementing a communication campaign aimed at making contact with customers not acknowledging charges for services not requested, to see if conditions are met for refund. The Authority has accepted the commitments made by TIM hence the proceedings have now concluded without any assessment of the alleged unfair conduct and application of the sanction.

Antitrust Case PS 12231 "TIM fixed offers" (Premium, Executive, Magnifica)

On December 22, 2021, AGCM (the Italian Competition Authority) started proceedings against TIM for unfair commercial practices reported by Iliad S.p.A. concerning the alleged failure to provide information on the consumption of the voice component of the Premium and Executive fixed offers and technical limits correlated with the method being tried out of the Magnifica fixed offer. Although convinced that its conduct was correct, on February 23, 2022, TIM submitted undertakings, implemented since March 2022, that overcame the technical limits disputed for the Magnifica offer on trial, improved transparency of information on the consumption components of the Premium and Executive offers and defined a communication campaign focused on customers not acknowledging charges for consumption in the voice component, so as to assess whether or not conditions are met for refund. The Authority has rejected the commitments but considered that the measures implemented by TIM were able to cease the conduct disputed. On November 2, 2022, the authority resolved to conclude the proceedings, fining TIM 1 million euros.

Antitrust Case PS 12304 "Anomalous billing"

On April 28, 2022, AGCM (the Italian Competition Authority) initiated proceedings against TIM for unfair commercial practice, challenging alleged undue billing following a request to terminate the line, including cases of switch to another operator, with reference to fixed and mobile telephony. Although convinced of the diligence of its conduct, TIM has decided to implement a series of measures to make the procedures for terminating contract, and, therefore, the related billing, even more efficient and transparent. The completion of the proceedings was postponed until March 24, 2023. Similar proceedings have been brought by the authority against the main communication operators.

Antitrust Case PS 12384 "Additional giga"

On August 5, 2022, AGCM (the Italian Competition Authority) initiated proceedings against TIM for unfair commercial practice reported by various consumers, challenging the alleged incorrect application of art. 65 of Italian Legislative Decree no. 206 of September 6, 2005 for an alleged additional service (giga) present in the mobile maneuver offer with effect from September 1, 2022. At the same time as the tariff remodulation maneuver, TIM also gave the consumer the option of choosing to keep the pre-existing offer, also in compliance with the guidance given by the Council of State (Judgment no. 8024/2019). On March 3, 2023, the authority resolved to conclude the proceedings, fining TIM 2.1 million euros.

Universal Service

In a decision published in July 2015, the Council of State rejected the appeal lodged by AGCom and TIM against the judgment of the Lazio Administrative Court (TAR) on the financing of the universal service obligations for the period 1999–2003. With this judgment the judge had granted the appeals by Vodafone, annulling AGCom decisions 106, 107, 109/11/CONS on the renewal of the related proceedings, which included Vodafone among the subjects required to contribute, for a sum of approximately 38 million euros. Essentially, the judgment confirms that the Authority has not demonstrated the particular degree of "replaceability" between fixed and mobile telephony for mobile operators to be included among the subjects required to repay the cost of the universal service, which means that AGCom needs to issue a new ruling. TIM has filed an application with AGCom to renew the proceedings, and an appeal against the judgment of the Court of Appeal to the Court of Cassation (which subsequently ruled that the appeal was inadmissible).

In April 2016 Vodafone appealed against the Ministry of Economic Development (MISE) and TIM to the Council of State, for non-compliance with the judgment of the Council of State. This appeal referred to AGCom decision 109/11/CONS (2003 yearly payment, on the basis of which Vodafone had paid the sum of approximately 9 million euros as contribution, restitution of which was requested).

In its judgment of November 2016, the Council of State rejected the appeal, referring to the Regional Administrative Court (TAR) the decision on the methods of compliance. In February 2017, Vodafone presented the Lazio Regional Administrative Court with four new appeals against the Ministry of Economic Development and TIM regarding observance of the ruling, upheld on appeal, countermanding the resolutions for the years 1999–2003 and repayment of the aforesaid amounts of around 38 million euros already paid to the Ministry of Economic Development as a contribution.

With a judgment issued in June 2018, the TAR rejected all of Vodafone's appeals for observance, and, as requested by TIM, expressly affirmed that AGCom must renew the proceedings, particularly with regard to the determination of the degree of replaceability between fixed and mobile telephony. Vodafone challenged the four judgments before the Council of State, which, with a decision of October 2019, upheld Vodafone's appeal and confirmed the restitutory obligation of the sums in question applicable to TIM.

With resolution no. 263/20/CIR, AGCom started proceedings to renew the investigation into the iniquity of the net cost of the universal service for 1999-2009 and the allocation of contribution expenses. Vodafone has challenged this resolution before the Regional Administrative Court. The renewal proceedings concluded with resolution 18/21/CIR, which substantively confirmed the draft order. This same resolution has only been challenged before the regional administrative court by TIM for the years 1999 and 2000, while Vodafone, Wind and Fastweb have challenged the resolution for all years concerned with opposite grounds. By judgments published in February 2022, resolution 18/21/CIR was partially canceled; indeed, the regional administrative court has rejected the main complaint reporting the lack of power of renovation and upheld only the grounds hinged on the alleged unreasonable nature of the threshold envisaged by AGCOM for the analysis of iniquity second facie. Fastweb, Vodafone, Wind, AGCom and TIM have appealed to the Council of State against the judgment of the regional administrative court and the related hearings of the merits have been scheduled for April 4 and 27, 2023.

Dispute relating to "Adjustments on license fees" for the years 1994-1998

With regard to the judgments sought in previous years concerning the Ministry of Communications' request for payment of the balance of the amounts paid in concession charges for the years 1994-1998 (for a total of 113 million euros), the Lazio Regional Administrative Court (TAR) rejected the Company’s appeal against the request for adjustment of the license fee for 1994 in the amount of approximately 11 million euros, 9 million euros of which against turnover not received due to bad debts. TIM lodged an appeal. On the outcome of proceedings, with the ruling of December 2019, the Council of State partially accepted TIM's position, establishing the principle, according to which, the receivables referring to 1994 not collected for reasons not attributable to the operator, could have been deducted from the tax base for calculating the concession fee. As the Ministry of Economic Development has not followed up on TIM’s requests aimed at obtaining fulfillment of the judgment, TIM has submitted a further petition to the Council of State for failure to execute the judgment, but with judgment given in April 2022, the request for compliance brought by TIM was rejected. TIM has appealed for revocation of this judgment to the Council of State; the hearing has been scheduled for March 23, 2023.

With two further judgments the Lazio Regional Administrative Court (TAR), reiterating the reasons expressed previously, also rejected the appeals in which the Company challenged the requests for payment of outstanding balances of license fees for the years 1995 and 1996-1997-1998, in the amount of approximately 46 million euros. TIM has appealed before the Council of State also against these judgments. By judgment published in April 2022, the Council of State stressed the principles already set for 1994, namely that receivables that have become uncollectable for reasons not the fault of the operator, correctly handled in the accounts, on the financial statements and in terms of tax, can be deducted from the tax base for calculating the concession fee.

With reference to the 1998 fee adjustment (equal to about 41 million euros), the Lazio TAR, by TAR order of December 2018, suspended the judgment, raising preliminary questions with the EU Court of Justice on the correct scope of EC Directive no. 97/13 (in the matter of general authorizations and individual licenses in the field of telecommunications services on the basis of the currently pending litigation on the 1998 license fee, currently pending before the Rome Court of Appeal and illustrated in a subsequent paragraph).

The referred questions were based, inter alia, on the question posed to the Court of Justice on the possible conflict between the aforementioned EC Directive 97/13 and national law, which extended the obligation for telecommunications license-holders to pay the license fee for 1998 (commensurate with a portion of turnover), despite the liberalization process underway. In its judgment of March 2020, the EU Court of Justice held that the EU regulatory system must be interpreted as not allowing national legislation to extend to 1998 the obligation imposed on a telecommunications undertaking that was previously the concession holder (such as TIM) to pay a fee calculated on the basis of turnover and not only the administrative costs connected with the granting, management, control and implementation of the general authorizations and individual licenses scheme. The Court held, inter alia, that the Council of State – having held in its judgment 7506/2009 that the fee imposed for 1998 on TIM, the holder of an authorization existing on the date of entry into force of Directive 97/13, was due – interpreted national law in a way that was incompatible with EU law, as interpreted by the Court in its judgment of February 21, 2008. Following the judgment of the EU Court of Justice, the opinion on the final calculation of the 1998 charges was summarized before the Lazio Regional Administrative Court, which, in a judgment given last February, declared TIM’s appeal as unacceptable for procedural reasons, namely due to the prevalence of the formal ruling consisting of judgment no. 7506/09; in substantive terms, on the other hand, the judgment of the EU Court of Justice once again ascertained the European Community unlawful nature of the credit claim by the PA to obtain payment of the 1998 charges and, consequently, the final balance. The company has challenged the judgment of the Lazio Regional Administrative Court.

Poste

There are some pending disputes brought, at the end of the '90s, by Ing. C. Olivetti & C. S.p.A. (now TIM) against Poste, the Italian postal service, concerning non-payment of services delivered under a series of contracts to supply IT goods and services. The judgments issued in the lower courts established an outcome that was partially favorable to the ex-Olivetti, and have been appealed against by Poste in individual rehearings.

In this respect, while a 2009 judgment of the Rome Appeal Court confirmed one of the outstanding payables to TIM, another judgment by the same Court declared void one of the disputed contracts. After this judgment, Poste had issued a writ for the return of approximately 58 million euros, opposed by TIM given that the judgment of the Supreme Court for amendment of the above judgment is still pending.

After the 2012 judgment of the Supreme Court that quashed and remanded the decision of the Appeal Court on which the order was based, the Rome Court declared that the matter of issue in the enforcement proceedings was discontinued, since the claim made by Poste had been rejected. The judgment was resubmitted to another section of the Rome Appeal Court. In ruling no. 563 of January 25, 2019, the Rome Court of Appeal at the time of proceedings, reversing the Company's previous unfavorable appeal, confirmed the contract's validity and, with it, the legitimacy of TIM's view of the amount already collected, of which Poste had requested reimbursement. This ruling was challenged by Poste with appeal filed with the Court of Cassation, notified on July 31, 2019, which TIM challenged with relevant counter appeal.

Elinet S.p.A. Bankruptcy

In 2014, the receiver of Elinet S.p.A., and subsequently the receivers of Elitel S.r.l. and Elitel Telecom S.p.A. (the parent, at the time, of the Elitel group) appealed the judgment by which the Court of Rome dismissed the damages claim brought by the receivers of the Elinet-Elitel group, filing a new damages claim for a total of 282 million euros. The Company is alleged to have exercised management and control powers over the plaintiff, and, with it, over the Elitel group (an OLO in which TIM has never held any equity interest) through the management of trade receivables. TIM filed an appearance, challenging the claims made by the other party. The judgment on the appeal was handed down with ruling in July 2019, which with reference to TIM confirmed full legality of its conduct and total non-existence of any element of direction and coordination. The receivers of Elinet S.p.A. and Elitel Telecom S.p.A. appealed to the Court of Cassation in January 2020 to obtain the annulment of the judgment in the second instance. The receiver of Elitel S.r.l. has not filed an appeal with the Court of Cassation and, consequently, the total claim for damages has been reduced to 244 million euros. TIM notified a counterclaim asking confirmation of the ruling appealed against. The Court has scheduled the hearing in chambers for February 3, 2023.

Brazil - Opportunity Arbitration

In May 2012, TIM and Telecom Italia International N.V. (now merged in Telecom Italia Finance) were served with a notice of arbitration proceedings brought by the Opportunity group, claiming compensation for damages allegedly suffered for presumed breach of a settlement agreement signed in 2005. Based on the claimant's allegations, the damages relate to circumstances that emerged in the criminal proceedings pending before the Milan Court regarding, *inter alia*, unlawful activities engaged in by former employees of TIM.

The investigatory phase having been completed, the hearing for oral discussion took place in November 2014, after which the parties filed their concluding arguments in preparation for the decision on the case.

In September 2015, the Board of Arbitration declared the proceedings closed, as the award was going to be filed.

In September 2016 the ICC Court notified the parties of its judgment, based on which the Court of Arbitration rejected all the claims made by the Opportunity group and decided that the legal costs, administrative costs and costs for expert witnesses should be split between the parties (the "2016 Arbitration Award").

In April 2017 the Opportunity group filed an appeal against the 2016 Arbitration Award before the Paris Court of Appeal.

In November 2017, TIM and Telecom Italia Finance received from the Secretariat of the ICC's International Court of Arbitration notice of a Request for Revision of the 2016 Arbitration Award, filed by the Opportunity group, asking for a new award. A Board of Arbitration was subsequently established.

In October 2018, TIM and Telecom Italia Finance requested proceedings with the Paris Court of Appeal to be suspended, in the light of proceedings pending with the Court of Arbitration of the International Chamber of Commerce to review the same 2016 Arbitration Award. In November 2018, the Paris Court of Appeal suspended the proceedings until the decision is taken by the Court of Arbitration in the review proceedings.

As regards the proceedings to review the 2016 Arbitration Award, in October 2019 the ICC held the discussion hearing in Paris. In August 2020, the Arbitration Court issued the award rejecting the Request for Revision presented by the Opportunity Group (the "2020 Arbitration Award"). In December 2020, the Opportunity group filed an appeal against the 2020 Arbitration Award before the Paris Court of Appeal. In May 2021 the Opportunity group asked the Paris Court of Appeal to summarize the proceedings brought against the 2016 Arbitration Award. Thereafter, the Opportunity Group, TIM and Telecom Italia Finance filed their briefs in the two proceedings pending before the Paris Court of Appeal, respectively against the 2016 Award and the 2020 Award. The Court of Appeal has scheduled the hearing for discussion of both proceedings for June 5, 2023.

Iliad

By summons served during the first quarter of 2020, Iliad Italia S.p.A. sued TIM before the Court of Milan for alleged anti-competitive conduct, including through the Kena Mobile brand, which was allegedly aimed at hindering its entry to and consolidation in the mobile phone market in Italy, seeking damages of at least 71.4 million euros.

TIM filed an appearance, fully disputing the requests of Iliad Italia S.p.A.; and, in turn, submitting a counterclaim in accordance with Art. 2598 of the Italian Civil Code, with reference to the denigration implemented by Iliad Italia S.p.A. in regard to TIM and formulating a symmetrical claim for compensation for damages. In the first preliminary brief, Iliad updated its claim for damages, taking it to 242.8 million euros. Following the hearing for the specification of the parties' pleadings, held with written discussion, the court deferred the hearing for decision, assigning deadlines for submitting the closing arguments and statements of defense.

Iliad

By writ of summons notified in September 2021, Iliad Italia S.p.A. summonsed TIM before the Court of Milan for the alleged application to customers of unlawful contractual conditions in terms of time limits and economic costs for withdrawal with reference to mobile and fixed telephone offers, with a consequent petition to order TIM to compensate damages, currently quantified as 120.4 million euros. On February 1, 2022, the first hearing was held and the terms assigned for the briefs pursuant to article 183, subsection VI of the Italian Code of Civil Procedure. The hearing for discussion of the evidence has been postponed to April 5, 2023.

T-Power

By writ of summons notified in December 2021, T-Power s.r.l., former agent for the consumer sector, summonsed TIM before the Court of Rome to have the right acknowledged to receive payment of a total maximum amount of approximately 85 million euros by way of commission, compensation in lieu of notice and termination of employment, as well as compensation for damages. The disputed ended in December 2022 with a settlement.

Fastweb (Ethernet ATM migration)

By writ of summons notified in December 2021, TIM summonsed Fastweb before the Court of Milan, asking that it be ascertained and declared that Fastweb had not achieved the minimum objectives of migration from ATM bitstream technology to Ethernet bitstream technology in any of the 30 Collection Areas into which the national territory is divided by the deadline envisaged by industry regulation and the migration plan agreed by the parties; and therefore that it ascertain and declare that Telecom is entitled to: (a) reverse the economic benefits relating to this migration granted retroactively from 4/12/2016 to Fastweb and (b) obtain from Fastweb the prices for the ATM bandwidth envisaged by the contract stipulated by the parties and the current OR in force ratione temporis; (c) therefore declare and order Fastweb to pay Telecom the total amount of 79,240,329.47 euros (or other amount, potentially greater, as may be assessed during the course of proceedings).

Fastweb filed an appearance and submitted a counterclaim for abuse of a dominant market position and breach of contract. Fastweb's application is essentially based on alleged delays in the development of Ethernet coverage. The counterparty complains of damages of around 81.4 million euros. Having noted that the counterclaim made by Fastweb would appear to go beyond the profile of breach of contract and that, in this case, the specialized business chambers may be competent to judge the matter, the investigating judge has returned the case to the Chambers President for due consideration. The Chambers President has submitted the case to the President of the specialized business chambers. The first hearing is scheduled for December 14, 2022. The hearing for the admission of the preliminary motions has been postponed to June 13, 2023.

Wind Tre (INWIT)

By writ of summons notified in July 2022, Wind Tre summonsed TIM, INWIT and Vodafone to trial before the Court of Milan, asking that it ascertain the obstructive conduct of INWIT, seeking to prevent Wind Tre from upgrading the devices of its mobile network currently located at INWIT sites on the basis of the hosting contracts currently in force inter partes. Such conduct would constitute breach of contract and unlawful exploitation of the dominant position in accordance with Art. 3 of the Antitrust Law as well as unfair competition by third party also perpetrated in the form of secondary boycotting by INWIT S.p.A., TIM S.p.A. and Vodafone Italia S.p.A.. The opposing party asks the Court to ascertain and declare INWIT S.p.A., TIM S.p.A. and Vodafone Italia S.p.A. jointly liable to compensate the damages suffered by Wind Tre as a result of such unlawful acts, to be quantified as 50 million euros. The first hearing is scheduled for March 1, 2023. On January 9, 2023, Wind Tre withdrew the appeal against INWIT, Vodafone and TIM and the proceedings were extinguished.

Iliad (INWIT)

By writ of summons notified in July 2022, Iliad Italia S.p.A. summonsed Telecom, Vodafone and Infrastrutture Wireless Italiane S.p.A. ("INWIT") before the Court of Milan to assess the alleged unlawful conduct of INWIT, Telecom and Vodafone, consisting of refusal to allow Iliad to upgrade its mobile telephone transmission systems installed on INWIT-owned infrastructures. As a result of this conduct, Iliad has asked that Telecom be ordered, together with INWIT and Vodafone, to compensate the damages allegedly suffered, which it has reserved the right to quantify during the course of proceedings. The first hearing is scheduled for February 28, 2023.

b) Other information

Mobile telephony - criminal proceedings

In March 2012 TIM was served notice of the conclusion of the preliminary inquiries, which showed that the Company was being investigated by the Public Prosecutor of Milan pursuant to the Legislative Decree n. 231/2001, for the offenses of handling stolen goods and counterfeiting committed, according to the alleged allegations, by fourteen employees of the so-called "ethnic channel", with the participation of a number of dealers, for the purpose of obtaining undeserved commissions from TIM.

The Company, as the injured party damaged by such conduct, had brought two legal actions in 2008 and 2009 and had proceeded to suspend the employees involved in the criminal proceedings (suspension later followed by dismissal). It has also filed an initial statement of defense, together with a technical report by its own expert, requesting that the proceedings against it be suspended, and that charges of aggravated fraud against the Company be brought against the other defendants. In December 2012, the Public Prosecutor's Office filed a request for 89 defendants and the Company itself to be committed for trial.

During the preliminary hearing, the Company was admitted as civil party to the trial and, in November 2013, the conclusions in the interest of the civil party were filed, reaffirming TIM's total lack of involvement in the offenses claimed.

At the end of the preliminary hearing, which took place in March 2014, the Judge for the Preliminary Hearing committed for trial all the defendants (including TIM) who had not asked for their situation to be settled with alternative procedures, on the grounds that "examination in a trial" was needed. In April 2016, at the end of the first part of the trial, the Public Prosecutor asked for TIM to be sentenced to pay an administrative fine of 900 thousand euros, but decided not to ask for confiscation of any of the presumed profits of the offenses (quantified in the committal proceedings as totaling several million euros), based on the assumption that TIM had in any event remedied the presumed organizational inadequacies. While acknowledging the considerable redimensioning of the accusations, the Company has reiterated its total non-involvement in the facts at issue. In November 2016 the Court gave a verdict acquitting the Company on the grounds that there was no case to answer. All the individuals charged were also acquitted on various grounds.

The Public Prosecutor appealed the acquittal and appealed to the Court of Cassation "per saltum". In January 2019, the Italian Supreme Court of Cassation agreed to the appeal and therefore ordered that the documents of the proceedings be sent to the Milan Court of Appeal.

The proceedings were assigned to Chambers IV of the Milan Court of Appeal and started in May 2022; they concluded in October.

Upon completion of the phase, the Court of Appeal confirmed the judgment challenged, repeating the acquittal of TIM and dismissing the requests for sentencing of the General Prosecutor's Office in regard to the Company.

The Court also set a deadline of 15 days for filing the grounds.

Dispute concerning the license fees for 1998

TIM has summoned the Prime Minister's Office to appear in a civil suit for compensation for damages caused by the Italian State through appeal ruling 7506/09, handed down by the Council of State in breach, in the view of the Company, of Community law.

The main claim which the proceedings are founded on is based on community jurisprudence that recognizes the right to assert the responsibility of the State in relation to violation of rights recognized in community law and injured by a judgment that has become definitive, in respect of which no other remedy may be applied. The judgment of the Council of State definitively denied TIM the right to obtain restitution of the concession charge for 1998 (totaling 386 million euros for Telecom Italia and 143 million euros for the former TIM Company, plus interest), already denied by the Lazio regional administrative court despite the favorable and binding opinion of the European Court of Justice in February 2008. This judgment concerned the conflict between EC Directive 97/13 on general authorizations and individual licenses in the telecommunications services industry, and the national regulations that had deferred, for 1998, the obligation to pay the fee payable by telecommunications concession holders, despite the intervening deregulation process. The Company then proposed an alternative compensation claim, within the sphere of the same proceedings, for tort pursuant to art. 2043 of the Italian Civil Code. The compensation claimed has been quantified as approximately 529 million euros, plus legal interest and revaluation. The Avvocatura di Stato filed an appearance and submitted a counterclaim for the same sum. The case is subject to eligibility analysis by the Court, which declared the inadmissibility of TIM's main claim (case for damages for manifest breach of community law pursuant to law 117/88). However, this decision was amended in favor of the Company on appeal. In March 2015 the Rome Court issued its judgment in the first instance, declaring the Company's application inadmissible.

In 2015, TIM has appealed the decision, and the case is now pending the hearing specifying the nature of the forms of order sought. The Court of Appeal has scheduled the hearing for closing arguments for April 2, 2019. Thereafter, without any new procedural activities having taken place, the Court of Appeal incontrovertibly deferred the hearing for closing arguments first to 2020 and then to 2021 (from when the terms for conclusion and replies shall run, which will be followed shortly thereafter by the issue of the judgment). These deferrals were followed by the latest, of January 15, 2021, scheduling the new hearing for January 25, 2022.

On the matters underlying the case, the following must be noted:

- on the considered lack of jurisdiction of the Court of Rome (concerned by the judgment of the Court of Rome appealed by TIM) to judge the liability of the Italian government for the work of senior magistrates (in the case in point, the Council of State), which would have led to the declared inadmissibility of the claim in accordance with Art. 5, law no. 117/1978 (old text) - the United Chambers of the Court of Cassation ruled with judgment no. 14842 on June 7, 2018, confirming the jurisdiction of the Court of Rome and, therefore, the correctness of TIM's choice to base its lawsuit in the Court of Rome;
- on the unlawful nature of the conduct of the Italian government - and, therefore, on the liability of the State-Court in accordance with Law no. 117/1998 - once again, the EU Court of Justice has ruled, deciding on the prejudicial matter raised by the Lazio TAR in other, connected proceedings, in its judgment given on March 4, 2020 in C-34/19, stressing that TIM was not required to pay the charges demanded by the State for 1998 and, therefore, confirming the clear violation by the Council of State of European Community law (also because in clear conflict with the decision already given by the EU Court of Justice on February 21, 2008 in C-296/06, as, moreover, already ruled by the Court of Appeal of Rome, Chambers I, in Decree of January 31, 2012, which sanctioned the procedural admissibility of TIM's lawsuit);
- on the matter of the right to repeat the charges paid for 1998 - the Court of Cassation ruled in its judgment no. 18603 given on September 7, 2020, rejecting the appeal brought by the Presidency of the Council against the judgment whereby the Court of Appeal of Rome had upheld the claim for

compensation made by Vodafone (payment of charges for 1998) for the same title in separate proceedings.

In short, the company paid the charges disputed in 1998; it promptly challenged the administrative provision that had unfairly required said payment, before the administrative court; the administrative proceedings before the Council of State concluded negatively in 2009 (despite the recalled opposite judgment of the European Court of Justice); the civil proceedings of first instance concluded in March 2015 with a judgment of rejection for grounds of admissibility (then solved in the sense indicated by the company with the referenced judgment of Cassation in United Chambers no. 14842/18) and more than 6 years after the first instance judgment - going from deferral to deferral - the appeal judgment (that could only uphold the mentioned judgments of the Court of Justice and the Court of Cassation) has not yet been issued (nor, on the basis of these repeated deferrals, can the company forecast when it will be given).

The company is examining the various scenarios and legal claims (national, European Community, etc.) that may contribute towards defining the appeal dispute. It is considered, in fact, that the principles of the reasonable duration of the trial, in accordance with subsection 2 of article 111 of the Constitution and in accordance with article 6 of the European Convention on Human Rights, are violated by these events, considering: (i) the year in which payment was made of the undue charges is 1998; (ii) the value of these charges is approximately 529 million euros plus interest from that date; (iii) the extremely long procedural process has not even led to an appeal judgment (started in 2015 and with an unpredictable conclusion, given the continuous deferrals); (iv) the circumstance that the legal matter appears to be readily able to be settled, as not one but two judgments have already been given by the EU Court of Justice declaring payment of the charges to be incompatible with European Community legislation (judgments that have currently been ignored by the national court).

As part of the aforementioned analyzes aimed at reaching a definition of the appeal sentence, it should be pointed out that on January 25, 2021 the Company filed a request with the Rome Court of Appeal to bring forward the hearing (postponed, as mentioned, to January 25, 2022) in order to avoid yet another postponement of the case, which, as we know, concerns the non-compliance with two inter partes decisions, on the same matter, by the Court of Justice of the European Union for a clear violation of European law by the State-Judge. With a ruling on February 8, 2021, the Rome Court of Appeal (second section specializing in corporate matters) deemed it could grant the request for an advance ruling, setting the hearing for November 30, 2021. On that date the case was taken to decision with the assignment of the legal terms for closing statements and replies. By order of 2/22/2022, having acknowledged that one of its members had chosen to abstain, the Board re-submitted the case, arranging for the deeds to be sent onto the President of the Court of Appeal. On March 4, 2022, the case was reassigned to another judge. By judgment of March 31, 2022, the Board scheduled the hearing for December 1, 2022 for closing arguments. The Board has deferred the case to the hearing of January 19, 2023 for verbal discussion. Following the request made by the State advocacy, the case was deferred to the hearing of March 9, 2023.

c) Commitments and guarantees

Personal guarantees provided, totaling 5,592 million euros, refer mainly to guarantee financing provided by TIM on behalf of Subsidiaries (including 3,750 million euros for Telecom Italia Capital, 1,183 million euros for Telecom Italia Finance, 200 million euros for Telecom Italia Sparkle, 145 million euros for FiberCop, 116 million euros for Telenergia, 99 million euros for Olivetti and 42 million euros for Noovle).

Significant purchase commitments outstanding at December 31, 2022 for long-term contracts forming part of TIM S.p.A.'s business operations, totaling around 5 billion euros, mainly related to the commitments undertaken by the Company for supplies related to the operation of the telecommunications network.

The guarantees provided by third parties to Group companies, amounting to 2,945 million euros, refer for 1,375 million euros to the related to guarantees provided by banks and other financial institutions as a guarantee of the proper performance of contractual obligations and for 1,570 million euros to insurance guarantees. In particular, we report:

- the insurance guarantees mainly refer to guarantee financing by TIM in applying legal provisions for contracts of Public Administrations and similar bodies;
- TIM had bank guarantees issued in favor of INPS to support the application - also for some Group companies - of Article 4, subsection 1, of Law 92 of June 28, 2012, to incentivize the departure of workers meeting the necessary requirements; the total amount of guarantees is 1,026 million euros (of which 973 million euros for TIM, 29 million euros for Telecom Italia Sparkle and 14 million euros for Olivetti).

Furthermore, in May 2018, TIM issued a surety to the Prime Minister's Office for 74.3 million euros to secure an appeal to the Lazio Administration Court for a provisional stay of the administrative fine levied on TIM following the preliminary investigation connected with the penalty proceeding initiated under Article 2 of Decree Law 21 of 3/15/2012 (the "Golden Power" law).

At December 31, 2022, the intercompany credit lines granted by TIM S.p.A. to the subsidiary FiberCop S.p.A. amount to 5.55 billion euros, of which unused for an amount of about 4 billion euros.

NOTE 24
REVENUES

These decreased by 299 million euros compared to 2021. The breakdown is as follows:

(million euros)	2022	2021
Equipment sales	1,711	1,746
Services	10,387	10,651
Total	**12,098**	**12,397**

Revenues from services are mainly represented by voice and data services on fixed and mobile networks for retail customers (7,412 million euros) and for other wholesale operators (2,158 million euros).

Revenues are presented gross of amounts due to other TLC operators (550 million euros), which are included in "Costs of services".

NOTE 25
OTHER INCOME

This fell by 77 million euros and the figure breaks down as follows:

(million euros)	2022	2021
Late payment fees charged for telephone services	26	29
Recovery of employee benefit expenses, purchases and services rendered	23	33
Capital and operating grants	36	26
Damages, penalties and recoveries connected with litigation	32	22
Estimate revisions and other adjustments	68	71
Income for special training activities	1	66
Other	59	75
Total	**245**	**322**

NOTE 26
PURCHASE OF RAW MATERIALS AND SERVICES

This item increased by 843 million euros compared to 2021. The figure breaks down as follows:

(million euros)		2022	2021
Purchase of raw materials and goods	**(a)**	**911**	**1,053**
Costs of services			
Revenues due to other TLC operators		550	608
Costs for telecommunications network access services		105	99
Commissions, sales commissions and other selling expenses		1,215	993
Advertising and promotion expenses		129	137
Professional and consulting services		110	104
Utilities		387	342
Maintenance costs		363	360
Outsourcing costs for other services		409	413
Mailing and delivery expenses for telephone bills, directories and other materials to customers		28	30
Distribution and logistics		7	8
Travel and lodging costs		7	5
Insurance		23	23
Other service expenses		2,872	2,171
	(b)	**6,205**	**5,293**
Lease and rental costs			
Rent and leases		3	3
Other lease and rental costs		483	410
	(c)	**486**	**413**
Total	**(a+b+c)**	**7,602**	**6,759**

In application of IFRS 16, leased asset costs mainly included lease fees for contracts relating to intangible assets (483 million euros, mainly for software licenses and royalties).

Specifically, Other service expenses mainly includes costs due to external companies to set up network accesses as party of the delivery agreements in place with Group companies (such as FiberCop), as well as facility and maintenance costs.

NOTE 27
EMPLOYEE BENEFITS EXPENSES

This item decreased by 125 million euros compared to 2021. The figure breaks down as follows:

(million euros)		2022	2021
Ordinary employee expenses			
Wages and salaries		1,398	1,445
Social security expenses		528	538
Employee Severance Indemnities		—	—
Other employee benefits		130	134
	(a)	**2,056**	**2,117**
Costs and provisions for agency contract work	**(b)**	**—**	**—**
Miscellaneous expenses for employees and other labor-related services rendered			
Charges for termination benefit incentives		204	—
Corporate restructuring expenses		313	333
Other		5	3
	(c)	**522**	**336**
Total	**(a+b+c)**	**2,578**	**2,453**

Ordinary employee expenses decreased by 61 million euros, mainly due to the decrease in the average salaried workforce, equal to a total of -2,066 employees on average, of which -1,471 employees on average deriving from the application of the Expansion Contract, which entails a reduction of working hours of staff on the workforce;

Charges for termination benefit incentives and **Corporate restructuring expenses** totaled 517 million euros (333 million euros in 2021) and are mainly linked to the recording of period expenses for outgoing managerial and non-managerial staff, envisaged according to the application of art. 4 of Law no. 92 of June 28, 2012 and former art. 41, subsection 5bis of Italian Legislative Decree no. 148/2015, as per the agreements signed, during the year, with the trade unions, by TIM S.p.A..

The average salaried workforce stood at 32,464 employees at December 31, 2022 (34,529 at December 31, 2021). A breakdown by category is as follows:

(number of units)	2022	2021
Executives	420	456
Middle managers	3,113	3,255
White collars	28,931	30,818
Blue collars	—	—
Employees on payroll	**32,464**	**34,529**
Agency contract workers	—	—
Total headcount	**32,464**	**34,529**

The headcount at December 31, 2022 amounted to 35,524 employees, a decrease of 1,540 compared to December 31, 2021 (37,064).

NOTE 28
OTHER OPERATING EXPENSES

This item decreased by 759 million euros compared to 2021. The figure breaks down as follows:

(million euros)	2022	2021
Write-downs and expenses in connection with credit management	115	217
Provision charges	118	674
TLC operating fees and charges	43	41
Indirect duties and taxes	55	58
Penalties, settlement compensation and administrative fines	24	127
Subscription dues and fees, donations, scholarships and traineeships	10	10
Other	55	52
Total	**420**	**1,179**
of which, included in the supplementary disclosure on financial instruments	*115*	*217*

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

NOTE 29
CHANGE IN INVENTORIES

This came to a positive 28 million euros (positive 21 million euros at December 31, 2021), and was mainly attributable to a trend seeing lesser consumption on the Mobile segment, particularly during the last quarter of the year.

In 2022, write-downs of inventories amounted to around 3 million euros.

NOTE 30
INTERNALLY GENERATED ASSETS

This item amounted to 315 million euros, up by 27 million euros on 2021. These consist solely of capitalization of both tangible and intangible assets on the cost of labor, and, specifically:

- 161 million euros relating to “intangible assets with a finite useful life”, mainly relating to development of software and network solutions, applications and innovative services;
- 154 million euros relating to the “tangible assets” connected with design, construction and testing of network infrastructure and systems.

This performance was attributable to higher capitalization relating to both tangible assets for the installation of access and carrier networks (13 million euros) and to intangible assets for the development of software and innovative services and network solutions (14 million euros). The greater capitalization mainly results in an increase in the hourly cost for intangible assets and an increase in the hours worked consequent to the start of activities linked to the calls for tenders for the National Recovery and Resilience Plan (NRRP).

NOTE 31
DEPRECIATION AND AMORTIZATION

This item decreased by 237 million euros compared to 2021 and was broken down as follows:

(million euros)		2022	2021
Amortization of intangible assets with a finite useful life			
Industrial patents and intellectual property rights		735	732
Concessions, licenses, trademarks and similar rights		294	380
Other intangible assets		1	—
	(a)	**1,030**	**1,112**
Depreciation of tangible assets owned			
Buildings (civil and industrial)		28	28
Plant and equipment		1,173	1,338
Manufacturing and distribution equipment		8	9
Other		61	57
	(b)	**1,270**	**1,432**
Amortization of rights of use assets			
Rights of use Concessions, Licenses, Trademarks and Similar Rights		2	1
Property		298	288
Plant and equipment		133	136
Other		26	27
	(c)	**459**	**452**
Total	**(a+b+c)**	**2,759**	**2,996**

For further details refer to the Notes "Intangible assets with a finite useful life", "Tangible assets" and "Rights of use assets".

NOTE 32

GAINS/(LOSSES) ON DISPOSALS OF NON-CURRENT ASSETS

This item was broken down as follows:

(million euros)		2022	2021
Gains on disposals of non-current assets			
Gains on the retirement/disposal of intangible, tangible and rights of use assets		37	7
	(a)	**37**	**7**
Losses on disposals of non-current assets			
Losses on the retirement/disposal of intangible, tangible and rights of use assets		13	50
	(b)	**13**	**50**
Total	**(a-b)**	**24**	**(43)**

NOTE 33

IMPAIRMENT REVERSALS (LOSSES) ON NON-CURRENT ASSETS

The item was absent in 2022 (negative for 4,120 million euros in 2021), following the impairment of goodwill attributed to domestic activities.

In accordance with IAS 36, goodwill is not subject to amortization, but is tested for impairment on at least an annual basis, when preparing the company's separate financial statements.

Further details are provided in the Note "Goodwill".

NOTE 34
INCOME/(EXPENSES) FROM INVESTMENTS

Details are as follows:

(million euros)	2022	2021
Dividends	113	837
Net gains on disposals of investments	313	9
Losses on disposals of investments	—	—
Other income from investments	—	10
Impairment losses on financial assets	(18)	(7)
Sundry expenses from investments	—	(15)
Total	**408**	**834**
of which, included in the supplementary disclosure on financial instruments	*2*	*1*

Further details on Financial Instruments are provided in the Note "Supplementary disclosures on financial instruments".

In particular, we report:

- dividends mainly related to the subsidiary Telecom Italia Finance (54 million euros) and the associate Daphne 3 (57 million euros). In 2021 dividends mainly related to the subsidiaries Telecom Italia Sparkle (400 million euros) and Telecom Italia Finance (436 million euros).
- impairment losses referred mainly to the impairment of investment in the subsidiary TIM Servizi Digitali. In 2021 impairment losses referred mainly to the impairment of investment in the subsidiary Telecom Italia Ventures.
- net capital gains, of 313 million euros, refer to the mentioned sale of 41% of the share capital of the holding Daphne 3 to a consortium of investors led by Ardian. In 2021, they referred to the sale of 37.5% of the investment in the subsidiary FiberCop to the KKR fund (gross capital gain of 17 million euros, net of accessory charges for 8 million euros).

NOTE 35
FINANCE INCOME AND EXPENSES

Finance income (expenses) showed a net expense of 993 million euros, which breaks down as follows:

(million euros)	2022	2021
Finance income	1,415	1,076
Finance expenses	2,408	1,984
Total net finance income (expenses)	**(993)**	**(908)**

The items break down as follows:

(million euros)		2022	2021
Interest expenses and other finance expenses			
Interest expenses and other costs relating to bonds		(429)	(525)
Interest expenses relating to subsidiaries		(190)	(158)
Interest expenses relating to associates		(1)	—
Interest expenses to banks		(88)	(34)
Finance expenses on lease liabilities		(126)	(132)
Interest expenses to others		(3)	(2)
		(837)	**(851)**
Commissions		(54)	(52)
Other finance expenses (*)		(76)	(61)
		(130)	**(113)**
Interest income and other finance income:			
Interest income		11	12
Interest income from subsidiaries		—	1
Interest income from associates		—	—
Income from financial receivables, recorded in Non-current assets		4	8
Income from financial receivables from subsidiaries, recorded in Non-current assets		77	95
Income from financial receivables from associates, recorded in Non-current assets		—	—
Income from securities other than investments, recorded in Non-current assets		—	—
Income from securities other than investments, recorded in Current assets (*)		5	4
Miscellaneous finance income		27	21
		124	**141**
Total net finance interest/(expenses)	**(a)**	**(843)**	**(823)**
Other components of finance income and expenses:			
Net exchange gains and losses		15	1
Net result from derivatives		(81)	(57)
Net fair value adjustments to fair value hedge derivatives and underlying instruments		—	(4)
Net fair value adjustments to non-hedging derivatives		(84)	(25)
Total other components of finance income and expenses:	**(b)**	**(150)**	**(85)**
Total net finance income (expenses)	**(c)=(a+b)**	**(993)**	**(908)**
of which, included in the supplementary disclosure on financial instruments		*(832)*	*(691)*

(*) of which IFRS9 impact, nil on 2022 and 2021.

Further details on Financial Instruments are provided in the Note "Supplementary disclosure on financial instruments".

For greater clarity of presentation, the net effects relating to derivative financial instruments are summarized in the following table:

(million euros)		2022	2021
Foreign currency conversion gains		42	10
Exchange losses		(27)	(9)
Net exchange gains and losses		**15**	**1**
Income from fair value hedge derivatives		2	33
Charges from fair value hedge derivatives		(1)	—
Net result from fair value hedge derivatives	**(a)**	**1**	**33**
Positive effect of the reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)		140	113
Negative effect of the reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)		(209)	(215)
Net effect of the Reversal of the Reserve of cash flow hedge derivatives to the income statement (interest rate component)	**(b)**	**(69)**	**(102)**
Income from non-hedging derivatives		320	276
Charges from non-hedging derivatives		(333)	(264)
Net result from non-hedging derivatives	**(c)**	**(13)**	**12**
Net result from derivatives	**(a+b+c)**	**(81)**	**(57)**
Positive fair value adjustments to fair value hedge derivatives		—	—
Negative fair value adjustments relating to financial assets and liabilities underlying fair value hedge derivatives		—	—
Net fair value adjustments	**(d)**	**—**	**—**
Positive fair value adjustments to Underlying financial assets and liabilities of fair value hedge derivatives		3	50
Negative fair value adjustments relating to fair value hedge derivatives		(3)	(54)
Net fair value adjustments	**(e)**	**—**	**(4)**
Net fair value adjustments to fair value hedge derivatives and underlying instruments	**(d+e)**	**—**	**(4)**
Positive fair value adjustments to non-hedging derivatives	(f)	784	453
Negative fair value adjustments to non-hedging derivatives	(g)	(868)	(478)
Net fair value adjustments to non-hedging derivatives	**(f+g)**	**(84)**	**(25)**

NOTE 36
RELATED-PARTY TRANSACTIONS

The following tables show the balances relating to related-party transactions and the impact of those amounts on the separate income statement, statement of financial position and statement of cash flows of TIM S.p.A..

In accordance with Art. 5, subsections 8 and 9 of Consob Regulation no. 17221 of March 12, 2010 concerning "Related-Party Transactions" and subsequent amendments, in 2022, the carrying out of the Transaction of greater importance is noted, as defined by Art. 4, subsection 1, letter a) of the above regulation and by Art. 7 of the Company's Related-Party Transactions Procedure, following the award of the European open tender procedure for the award, by public-private partnership contract, of the development and management of the National Strategic Hub. For a complete description of the Transaction, refer to the Information Document made available to the public in connection with Transactions of greater importance with related parties and prepared in accordance with Article 5 of such regulation.

In addition, there were no transactions concluded that significantly impacted the equity position or results of the TIM Group and TIM S.p.A., nor were there any changes or developments with respect to the related-party transactions described in the 2021 Report on Operations which had a significant effect on the financial position or on the performance of the TIM Group and TIM S.p.A. in 2022.

Related-party transactions, when not dictated by specific laws, were conducted at arm's length. They were performed in compliance with the internal procedure, which sets forth rules designed to ensure the transparency and fairness of the transactions in accordance with Consob Regulation 17221/2010. The current procedure is available on the website gruppotim.it, under the Group section/Governance tools channel.

For an analysis of transactions with subsidiaries and associates of TIM S.p.A. refer to the Note "Investments".

The effects of related-party transactions on the line items of the separate income statements for 2022 and 2021 are as follows:

SEPARATE INCOME STATEMENT LINE ITEMS 2022

(million euros)	Total	Related Parties						
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	**Total related parties**	% of financial statement item
	(a)						(b)	(b/a)
Revenues	**12,098**	1,472	10	80	—	—	**1,562**	12.9
Other income	**245**	65	2	—	—	—	**67**	27.3
Acquisition of goods and services	**7,602**	2,514	202	77	—	—	**2,793**	36.7
Employee benefits expenses	**2,578**	—	—	—	66	20	**86**	3.3
Other operating expenses	**420**	8	—	—	—	—	**8**	1.9
Depreciation and amortization	**2,759**	15	29	—	—	—	**44**	1.6
Gains/losses on disposals of non-current assets	**24**	—	—	—	—	—	**—**	—
Income (expenses) from investments	**408**	54	57	—	—	—	**111**	27.2
Finance income	**1,415**	843	—	—	—	—	**843**	59.6
Finance expenses	**2,408**	610	12	—	—	—	**622**	25.8

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

SEPARATE INCOME STATEMENT LINE ITEMS 2021

(million euros)	Total	Related Parties						
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	Key managers	**Total related parties**	% of financial statement item
	(a)						(b)	(b/a)
Revenues	**12,397**	1,074	26	22	—	—	1,122	9.1
Other income	**322**	88	1	—	—	—	89	27.6
Acquisition of goods and services	**6,759**	1,996	350	79	—	—	2,425	35.9
Employee benefits expenses	**2,453**	—	—	—	64	32	96	3.9
Other operating expenses	**1,179**	—	3	—	—	—	3	0.3
Depreciation and amortization	**2,996**	25	50	—	—	—	75	2.5
Gains/losses on disposals of non-current assets	**(43)**	(40)	—	—	—	—	(40)	93.0
Income (expenses) from investments	**834**	836	—	—	—	—	836	100.2
Finance income	**1,076**	373	—	—	—	—	373	34.7
Finance expenses	**1,984**	654	18	—	—	—	672	33.9

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

The effects of related-party transactions on the line items of the statements of financial position as at December 31, 2022 and December 31, 2021 are as follows:

STATEMENT OF FINANCIAL POSITION LINE ITEMS AT DECEMBER 31, 2022

(million euros)	Total	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
NET FINANCIAL DEBT							
Non-current financial assets	**3,502**	**2,379**	**—**	**1**	**—**	**2,380**	68.0
of which: Non-current financial assets for lease contracts	*8*	—	—	*1*	—	***1***	*12.5*
Securities other than investments (current assets)	—	—	—	—	—	**—**	—
Financial receivables and other current financial assets	512	377	—	—	—	**377**	73.6
of which: Current financial assets for lease contracts	*45*	*4*	—	—	—	***4***	*8.9*
Cash and cash equivalents	1,375	218	—	—	—	**218**	15.9
Current financial assets	**1,887**	**595**	**—**	**—**	**—**	**595**	31.5
Non-current financial liabilities	21,379	4,400	—	—	—	**4,400**	20.6
of which: Non-current financial liabilities for lease contracts	*2,600*	*25*	—	—	—	***25***	*1.0*
Current financial liabilities	6,149	1,954	—	—	—	**1,954**	31.8
of which: Current financial liabilities for lease contracts	*459*	*28*	—	—	—	***28***	*6.1*
Total net financial debt	**22,139**	**3,380**	**—**	**(1)**	**—**	**3,379**	15.3
OTHER STATEMENT OF FINANCIAL POSITION LINE ITEMS							
Rights of use assets	3,188	167	—	2	—	**169**	5.3
Miscellaneous receivables and other non-current assets	1,878	305	1	—	—	**306**	16.3
Trade and miscellaneous receivables and other current assets	4,293	1,039	23	27	—	**1,089**	25.4
Miscellaneous payables and other non-current liabilities	875	16	—	19	—	**35**	4.0
Trade and miscellaneous payables and other current liabilities	6,578	781	22	49	21	**873**	13.3

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

STATEMENT OF FINANCIAL POSITION LINE ITEMS AT DECEMBER 31, 2021

(million euros)	Total	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
NET FINANCIAL DEBT							
Non-current financial assets	**4,449**	**2,669**	**—**	**1**	**—**	**2,670**	60.0
of which: Non-current financial assets for lease contracts	***11***	***—***	***—***	***1***	***—***	***1***	***9.1***
Securities other than investments (current assets)	**—**	—	—	—	—	**—**	—
Financial receivables and other current financial assets	**155**	17	—	—	—	**17**	11.0
of which: Current financial assets for lease contracts	***39***	*4*	—	—	—	***4***	*10.3*
Cash and cash equivalents	**3,558**	26	—	—	—	**26**	0.7
Current financial assets	**3,713**	**43**	**—**	**—**	**—**	**43**	1.2
Non-current financial liabilities	**24,620**	5,567	269	—	—	**5,836**	23.7
of which: Non-current financial liabilities for lease contracts	***2,743***	*29*	*269*	—	—	***298***	*10.9*
Current financial liabilities	**5,479**	485	75	—	—	**560**	10.2
of which: Current financial liabilities for lease contracts	***434***	*6*	*73*	—	—	***79***	*18.2*
Total net financial debt	**21,937**	**3,340**	**344**	**(1)**	**—**	**3,683**	16.8
OTHER STATEMENT OF FINANCIAL POSITION LINE ITEMS							
Rights of use assets	**3,320**	189	299	—	—	**488**	14.7
Miscellaneous receivables and other non-current assets	**1,974**	247	—	—	—	**247**	12.5
Trade and miscellaneous receivables and other current assets	**3,931**	737	17	20	—	**774**	19.7
Miscellaneous payables and other non-current liabilities	**1,196**	10	2	23	—	**35**	2.9
Trade and miscellaneous payables and other current liabilities	**8,111**	681	177	44	21	**923**	11.4

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

The effects of related-party transactions on the significant line items of the statements of cash flows for 2022 and 2021 are as follows:

STATEMENT OF CASH FLOWS LINE ITEMS 2022

(million euros)	Total	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
Purchase of intangible, tangible and rights of use assets on an accrual basis	2,065	21	39	3	—	**63**	3.1
Dividends paid	1	—	—	—	—	**—**	—

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

STATEMENT OF CASH FLOWS LINE ITEMS 2021

(million euros)	**Total**	Related Parties					
		Subsidiaries	Associates, subsidiaries of associates and joint ventures	Other related parties (*)	Pension funds	**Total related parties**	% of financial statement item
	(a)					**(b)**	**(b/a)**
Purchase of intangible, tangible and rights of use assets on an accrual basis	**2,547**	77	8	15	—	**100**	3.9
Dividends paid	**318**	1	—	51	—	**52**	16.4

(*) Vivendi Group and companies belonging to the group that it belongs to; Cassa Depositi e Prestiti Group and its subsidiaries; other related parties through Directors, Statutory Auditors and Key Managers.

Transactions with subsidiaries

The most significant amounts are summarized as follows:

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	Type of contract
Revenues			
FiberCop S.p.A.	1,280	904	Carrying out of contracted works on developments of secondary copper and fiber network, ordinary and extraordinary maintenance services on the secondary copper and fiber network, fee income for administrative services connected with the IRU transfer and acquisition of secondary access network installation infrastructures, supply of ERP, separation, desktop management, TSA and voice services
Noovle S.p.A. Società Benefit	19	18	Voice services, supply of ICT products, property leasing, real estate services, operating services and facility services
Olivetti S.p.A. Società Benefit	5	(2)	Telephone services, MPLS and fiber services for the national data network, property leasing, administrative outsourcing
Telecom Italia S.Marino S.p.A.	2	2	Connection and telecommunications services (interconnection contracts for the sale of data services such as bitstream; IRU transfer of dark fiber connections and installation infrastructures; ULL; Shared Access; DSLAM devices; SUBLOOP FTTC), voice services, product sales
Telecom Italia Sparkle S.p.A.	45	47	Voice and data transmission services, customized services, services relating to the interconnection between Telecom Italia Sparkle and TIM communications networks with particular reference to accesses and international traffic, sale of IRU dark fiber and installation infrastructures, property leasing, administrative outsourcing
Telecom Italia Trust Technologies S.r.l.	2	3	Voice outsourced services, management and supply of ICT Security & Risk Management services and administrative outsourcing
Telecontact S.p.A.	4	3	Lease of properties and facility management services, supply of fixed and mobile network and IP connectivity telecommunications products and services, administrative outsourcing
Telefonia Mobile Sammarinese S.p.A.	1	1	Mobile telephone and telecommunications product sales
Telenergia S.p.A.	2	2	Outsourcing for company business, administrative outsourcing, supply of operative assistance services
TIM S.A.	27	22	Roaming services, license support and provision as part of network operations, information technology, marketing & sales, Royalties Trademark License Agreement and TIM Brand
TIM Retail S.r.l.	79	73	Supply of products for sale to the public, voice and data transmission services and ICT services for company use, property leasing
TIM Servizi Digitali S.p.A.	5	—	Sale of materials to be used to develop the FTTH network
Other minor companies	1	1	
Total revenues	**1,472**	**1,074**	

(million euros)	2022	2021	Type of contract
Other income			
FiberCop S.p.A.	1	12	Refunds of costs of services, compensation for board positions, other income
Noovle S.p.A. Società Benefit	52	66	Recovery of seconded personnel costs, refunds of costs of services, other income
TIM Servizi Digitali S.p.A.	3	—	Penalties for breach of contract
Other minor companies	9	10	
Total other income	**65**	**88**	
Acquisition of goods and services			
FiberCop S.p.A.	1,243	910	Use of the secondary access network for the supply of copper and fiber access services to operators, IRU acquisition of secondary access (underground and overhead) network installation infrastructures for the transfer for exclusive use of said infrastructures to the operators, special commitment 2021-23 envisaged by the MSA
Noovle S.p.A. Società Benefit	411	399	Operating service Minimum Commitment Charge, supply of professional IT services, customized TIM offer services to end customers, supply of ICT products, charges for the collocation of Security systems in the Noovle data center, GCP consumptions, professional services, Azure consumptions, hosting, on-premise services, cloud consumption on Google consoles, Azure and Amazon web services, infrastructure costs for the Tim Cloud project and Consip, professional services, the reselling of Google licenses (G Suite), the collocation of Noovle data center paid in revenue share mode under the scope of offers to TIM end customers
Olivetti S.p.A. Società Benefit	51	79	Provision of Cloud Printing service and related software maintenance, supply of customized services as part of TIM offerings to end customers, purchase of IT services, ICT product installation costs, after-sales support, as part of TIM offerings to end customers, evolutionary developments of projects and platforms, purchase of software platform licenses, software developments, award of cloud enabling services and cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, end-to-end solutions proposed by Olivetti on Jasper platform and intermediated by TIM, under the scope of the contract for the development, management and marketing of machine to machine services and Internet of Things
Telecom Italia Sparkle S.p.A.	174	155	Portion to be paid for telecommunications services and interconnection costs, telephone services, data transmission and international line lease
Telecom Italia Trust Technologies S.r.l.	24	23	Certification Authority service for TIM and within the TIM customer offering, archiving service according to certified email rules for the TIM S.p.A. Certified Electronic Mail box, provision of digital identity management services by means of SPID platform
Telecontact S.p.A.	79	77	Customer Care services for TIM customers and for the Public Administration under the Consip Agreement, back office services relating to the billing services for customers of the paid service provided by TIM technicians, call center and back office services for the management of the information of the technical and commercial front end of public telephony
Telenergia S.p.A.	338	250	Power services
Telsy S.p.A.	55	10	Purchase of products for resale and rental as part of TIM offerings to end customers, ICT solutions and security services for TIM, maintenance services and licenses
TIM Retail S.r.l.	107	90	Supply of services for acquisition of new customers, information activities and post-sales support for TIM customers, activities for the promotion of TIM's image and distinctive brands through point-of-sale windows
TIM Servizi Digitali S.p.A.	32	3	Tender contract for network works, assurance activities, delivery, network construction
Total acquisition of goods and services	**2,514**	**1,996**	

(million euros)	2022	2021	Type of contract
Employee benefits expenses	**—**	**—**	
Other operating expenses	**8**	**—**	Operating costs for guarantees of origin to Telenergia S.p.A.
Amortization of rights of use assets			
FiberCop S.p.A.	11	21	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Noovle S.p.A. Società Benefit	4	4	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Total amortization of rights of use assets	**15**	**25**	
Gains/(losses) on disposals of non-current assets	**—**	**(40)**	
Income (expenses) from investments			
Telecom Italia Finance S.A.	54	436	Dividends
Telecom Italia Sparkle S.p.A.	—	400	Dividends
Total income (expenses) from investments	**54**	**836**	
Finance income			
FiberCop S.p.A.	71	88	Interest income on financial receivables, financial commission income
Noovle S.p.A. Società Benefit	27	23	Interest income on financial receivables, financial commission income
Telecom Italia Capital S.A.	690	230	Income from securities, income from derivatives, financial commissions receivable, other finance income
Telecom Italia Finance S.A.	46	30	Income from securities, income from derivatives, and financial commissions receivable
Telecom Italia Sparkle S.p.A.	6	1	Interest income on financial receivables, exchange gains
Telenergia S.p.A.	3	1	Interest income on financial receivables, financial commission income
Total finance income	**843**	**373**	
Finance expenses			
Telecom Italia Capital S.A.	474	522	Interest on financial payables, charges on derivatives, other finance expenses
Telecom Italia Finance S.A.	136	132	Interest on financial payables, charges on derivatives, financial commissions payable, other finance expenses
Total finance expenses	**610**	**654**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	Type of contract
Net financial debt			
Non-current financial assets			
FiberCop S.p.A.	1,534	1,516	Loan
Noovle S.p.A. Società Benefit	684	684	Loan
Telecom Italia Finance S.A.	151	149	Derivative assets
Telecom Italia Sparkle S.p.A.	—	316	Loan
Telsy S.p.A.	9	4	Loan
Other minor companies	1	—	
Total non-current financial assets	**2,379**	**2,669**	
Securities other than investments (current assets)	**—**	**—**	
Financial receivables and other current financial assets			
Staer Sistemi S.r.l.	4	4	Short-term financial receivables
Telecom Italia Capital S.A.	13	6	Derivative assets
Telecom Italia Finance S.A.	4	2	Derivative assets
Telecom Italia Sparkle S.p.A.	356	5	Financial receivables for the sale of network infrastructure in IRU
Total financial receivables and other current financial assets	**377**	**17**	
Cash and cash equivalents			Treasury current accounts
Noovle S.p.A. Società Benefit	163	11	
Telenergia S.p.A.	55	4	
TIM Servizi Digitali S.p.A.	—	11	
Total Cash and cash equivalents	**218**	**26**	
Non-current financial liabilities			
Noovle S.p.A. Società Benefit	25	29	Non-current financial liabilities related to the recognition of rights of use for lease liabilities
Telecom Italia Capital S.A.	3,163	4,162	Hedging derivatives and financial payables
Telecom Italia Finance S.A.	1,212	1,375	Hedging derivatives and financial payables
Other minor companies	—	1	
Total Non-current financial liabilities	**4,400**	**5,567**	

(million euros)	12/31/2022	12/31/2021	Type of contract
Current financial liabilities			
Daphne3 S.p.A.	—	1	Payables for current account transactions
FiberCop S.p.A.	29	14	Payables for current account transactions and financial liabilities connected with rights of use
Noovle S.p.A. Società Benefit	4	4	Current financial liabilities related to the recognition of rights of use for lease liabilities
Olivetti S.p.A. Società Benefit	22	35	Payables for current account transactions
Telecom Italia Capital S.A.	863	244	Financial payables, derivatives
Telecom Italia Finance S.A.	798	41	Financial payables, payables for current accounts, derivatives
Telecom Italia Sparkle S.p.A.	56	58	Payables for current account transactions
Telecom Italia Trust Technologies S.r.l.	3	4	Payables for current account transactions
Telecom Italia Ventures S.r.l.	63	—	Payables for current account transactions
Telecontact S.p.A.	43	33	Payables for current account transactions
Telsy S.p.A.	7	1	Payables for current account transactions
TIM My Broker S.r.l.	7	2	Payables for current account transactions
TIM Retail S.r.l.	56	47	Payables for current account transactions
TIM Servizi Digitali S.p.A.	3	—	Payables for current account transactions
Other minor companies	—	1	
Total Current financial liabilities	**1,954**	**485**	

(million euros)	12/31/2022	12/31/2021	Type of contract
Other statement of financial position line items			
Rights of use assets			
FiberCop S.p.A.	138	149	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Noovle S.p.A. Società Benefit	29	33	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Telecom Italia Sparkle S.p.A.	—	7	
Total rights of use assets	**167**	**189**	
Miscellaneous receivables and other non-current assets	**305**	**247**	Deferred contractual and other deferred costs for transactions with Telecontact (customer care services) and TIM Retail (new activations), receivables for tax consolidation

(million euros)	12/31/2022	12/31/2021	Type of contract
Trade and miscellaneous receivables and other current assets			
FiberCop S.p.A.	754	511	Carrying out of works on behalf of FiberCop on developments of secondary copper and fiber network, ordinary and extraordinary maintenance services on the secondary copper and fiber network, fee income for administrative services connected with the IRU transfer and acquisition of secondary access network installation infrastructures, supply of ERP, separation, desktop management, TSA and voice services, tax consolidation receivables
Noovle S.p.A. Società Benefit	135	91	Voice services, supply of ICT products, property leasing and facility services, recovery of seconded personnel costs, refunds of costs of services
Olivetti S.p.A. Società Benefit	5	6	Telephone services, MPLS and fiber services for the national data network, product sales, property leasing, project development, administrative outsourcing
Telecom Italia Capital S.A.	1	1	Commission on the provision of surety
Telecom Italia Finance S.A.	1	1	Commission on the provision of surety
Telecom Italia S.Marino S.p.A.	1	1	Connection and telecommunications services (interconnection contracts for the sale of data services such as bitstream; IRU transfer of dark fiber connections and installation infrastructures; ULL; Shared Access; DSLAM devices; SUBLOOP FTTC), voice services, product sales
Telecom Italia Sparkle S.p.A.	20	19	Voice and data transmission services, customized services, services relating to the interconnection between Telecom Italia Sparkle and TIM communications networks with particular reference to accesses and international traffic, sale of IRU dark fiber and installation infrastructures, property leasing, administrative outsourcing
Telecom Italia Trust Technologies S.r.l.	3	4	Voice outsourced services, management and supply of ICT Security & Risk Management services and administrative outsourcing
Telecontact S.p.A.	26	27	Lease of properties and facility management services, supply of fixed and mobile network and IP connectivity telecommunications products and services, administrative outsourcing, deferred contract costs
Telenergia S.p.A.	9	9	Outsourcing for company business, administrative outsourcing, supply of operative assistance services
Telsy S.p.A.	6	5	Deferred costs for the provision of equipment and licenses, as part of TIM offerings to end customers, ICT solutions and security services for TIM, maintenance services and licenses
TIM Retail S.r.l.	56	48	Supply of products for sale to the public, voice and data transmission services and ICT services for company use, property leasing, deferred costs, receivables for tax consolidation
TIM SA	16	12	Roaming services, license support and provision as part of network operations, information technology, marketing & sales, Royalties Trademark License Agreement and TIM Brand
TIM Servizi Digitali S.p.A.	4	1	Supplies of materials to be used to develop the FTTH network
Other minor companies	2	1	
Total trade and miscellaneous receivables and other current assets	**1,039**	**737**	

(million euros)	12/31/2022	12/31/2021	Type of contract
Miscellaneous payables and other non-current liabilities			
Olivetti S.p.A. Società Benefit	2	1	Payables for tax consolidation
Telecom Italia S.Marino S.p.A.	1	1	Deferred revenues for connection and telecommunications services contracts
Telecom Italia Sparkle S.p.A.	6	7	Deferred revenues from interconnection contracts, payables for tax consolidation
Telenergia S.p.A.	—	1	Payables for tax consolidation
Noovle S.p.A. Società Benefit	7	—	Payables for tax consolidation
Other minor companies	—	—	
Total miscellaneous payables and other non-current liabilities	**16**	**10**	
Trade and miscellaneous payables and other current liabilities			
FiberCop S.p.A.	375	352	Use of the secondary access network for the supply of copper and fiber access services to operators, IRU acquisition of secondary access (underground and overhead) network installation infrastructures for the transfer for exclusive use of said infrastructures to the operators, special commitment 2021-23 envisaged by the MSA, payables for VAT and tax consolidation
Noovle S.p.A. Società Benefit	99	106	Operating service Minimum Commitment Charge, supply of IT services marketed to SME customers, professional IT services, customized TIM offer services to end customers, supply of ICT products, charges for the collocation service of Security systems in Noovle data center, GCP consumptions, professional services, Azure consumptions, hosting, on-premise services, payables for VAT
Olivetti S.p.A. Società Benefit	22	25	Provision of Cloud Printing service and related software maintenance, supply of customized services as part of TIM offerings to end customers, purchase of IT services, ICT product installation costs, after-sales support, as part of TIM offerings to end customers, evolutionary developments of projects and platforms, purchase of software platform licenses, software developments, award of cloud enabling services and cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, end-to-end solutions proposed by Olivetti on Jasper platform and intermediated by TIM, under the scope of the contract for the development, management and marketing of machine to machine services and Internet of Things, VAT payables
Telecom Italia Sparkle S.p.A.	52	53	Portion to be paid for telecommunications services and interconnection costs, telephone services, data transmission and international line lease, payables for tax consolidation
Telecom Italia Trust Technologies S.r.l.	14	12	Certification Authority service for TIM and within the TIM customer offering, archiving service according to certified email rules for the TIM S.p.A. Certified Electronic Mail box, provision of digital identity management services by means of SPID platform, payables for VAT
Telecontact S.p.A.	16	21	Customer Care services for TIM customers and for the Public Administration under the Consip Agreement, back office services relating to the billing services for customers of the paid service provided by TIM technicians, call center and back office services for the management of the information of technical and commercial front end of the public telephony, for tax consolidation
Telenergia S.p.A.	125	71	Energy services, payables for VAT and tax consolidation
Telsy S.p.A.	32	11	Purchase of products for resale and rental as part of TIM offerings to end customers, ICT solutions and security services for TIM, maintenance services and licenses, VAT payables
TIM Retail S.r.l.	33	26	Supply of services for acquisition of new customers, information activities and post-sales support for TIM customers, activities for the promotion of image and distinctive brands TIM through point-of-sale windows, payables for tax consolidation

(million euros)	12/31/2022	12/31/2021	Type of contract
TIM Servizi Digitali S.p.A.	12	3	Tender contract for network works, assurance activities, delivery, network construction
Other minor companies	1	1	
Total trade and miscellaneous payables and other current liabilities	**781**	**681**	

STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2022	2021	Type of contract
Purchase of intangible, tangible and rights of use assets on an accrual basis			
Noovle S.p.A. Società Benefit	3	39	Purchases of Apigee licenses
Olivetti S.p.A. Società Benefit	3	7	Purchase of products for resale and lease as part of offerings for end customers, development and implementation on platforms
Telecom Italia Trust Technologies S.r.l.	2	2	Digital Identity and Certification Authority
Telenergia S.p.A.	—	1	Connections for power supply of local NGAN cabinets
Telsy S.p.A.	11	9	Purchase of equipment, as part of TIM offerings to end customers, ICT solutions and security services for TIM
TIM Servizi Digitali S.p.A.	2	—	Acquisitions for network works, assurance activities, delivery, network construction
Other minor companies	—	19	
Total purchase of intangible, tangible and rights of use assets on an accrual basis	**21**	**77**	
Dividends paid	**—**	**1**	Dividends paid to the company Telecom Italia Finance S.A.

Transactions with associates, subsidiaries of associates and joint ventures

Under the scope of the reorganization of Italtel S.p.A., on April 1, 2022, TIM S.p.A. subscribed to part of the company's share capital increase, taking the share held to 17.72%.

Italtel S.p.A. is also subject to the considerable influence of TIM S.p.A. in accordance with IAS 28 (Investments in Associates and Joint Ventures).

Therefore, starting April 1, 2022, the company is considered an associate and its subsidiaries are considered related parties of the TIM Group.

As already indicated, in accordance with Art. 5, subsections 8 and 9 of Consob Regulation no. 17221 of March 12, 2010 concerning "Related-Party Transactions" and subsequent amendments, in 2022, the carrying out of the Transaction of greater importance is noted, as defined by Art. 4, subsection 1, letter a) of the above regulation and by Art. 7 of the Company's Related-Party Transactions Procedure, following the award of the European open tender procedure for the award, by public-private partnership contract, of the development and management of the National Strategic Hub.

The most significant values of the transactions with associates, subsidiaries of associates and joint ventures are summarized as follows:

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	Type of contract
Revenues			
INWIT S.p.A.	15	38	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing
ITALTEL S.p.A.	1	—	Supply of fixed and mobile telephone services including equipment, Microsoft licenses and outsourcing services
NordCom S.p.A.	1	1	Fixed and mobile voice services, equipment, data network connections and outsourcing
Polo Strategico Nazionale S.p.A.	16	—	Products and services related to the start-up phase of the National Strategic Hub
TIMFin S.p.A.	(23)	(13)	Mobile and fixed voice services, outsourced services, fees and margins for miscellaneous costs for loans
Total revenues	**10**	**26**	
Other income	**2**	**1**	Recovery of seconded personnel costs, recovery of centralized expenses
Acquisition of goods and services			
INWIT S.p.A.	167	341	Supply of services for BTS sites, power supply systems for the supply of electricity of the hosted devices, monitoring and security services (alarms) and management and maintenance services, remote management and monitoring of the electricity consumption of TIM technological infrastructures (BTS) hosted at INWIT sites
ITALTEL S.p.A.	26	—	Supply of equipment, software licenses, professional services, hardware and software maintenance services connected with TIM offers to end customers, supply of network and security equipment maintenance services for a time-frame of 24 months, linked to the TIM offer for the customer Poste Italiane
W.A.Y. S.r.l.	8	8	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development
Other minor companies	1	1	
Total acquisition of goods and services	**202**	**350**	
Other operating expenses	**—**	**3**	Penalties for breach of contract on maintenance management services to INWIT S.p.A.
Amortization of rights of use assets			
INWIT S.p.A.	29	50	Amortization of rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Total amortization of rights of use assets	**29**	**50**	
Income (expenses) from investments			
Daphne 3 S.p.A.	57	—	Dividends
Total income (expenses) from investments	**57**	**—**	
Finance income	**—**	**—**	
Finance expenses			
INWIT S.p.A.	9	15	Finance expenses for interest related to financial liabilities for rights of use
TIMFin S.p.A.	3	3	Finance expenses for commission and other finance expenses
Total finance expenses	**12**	**18**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	Type of contract
Net financial debt			
Non-current financial assets	—	—	
Financial receivables and other current financial assets	—	—	
Non-current financial liabilities			
INWIT S.p.A.	—	269	Non-current financial liabilities related to the recognition of rights of use for lease liabilities
Total Non-current financial liabilities	**—**	**269**	
Current financial liabilities			
INWIT S.p.A.	—	74	Current financial liabilities related to the recognition of rights of use for lease liabilities
TIMFin S.p.A.	—	1	Financial liabilities for expenses on the transfer of receivables
Total Non-current financial liabilities	**—**	**75**	

(million euros)	12/31/2022	12/31/2021	Type of contract
Other statement of financial position line items			
Rights of use assets			
INWIT S.p.A.	—	299	Rights of use related to the recognition of greater non-current assets amortized over the residual contractual term
Total rights of use assets	**—**	**299**	
Miscellaneous receivables and other non-current assets	**1**	**—**	Other deferred costs to Italtel S.p.A.
Trade and miscellaneous receivables and other current assets			
INWIT S.p.A.	—	15	Voice and data transmission services for company use, Desktop Management ICT services, IRU transfer of Dark Optic Fiber and Local Infrastructure, Easy IP ADSL service, property leasing, maintenance services and administrative outsourcing
ITALTEL S.p.A.	1	—	Supply of fixed and mobile telephone services including equipment, Microsoft licenses and outsourcing services
Polo Strategico Nazionale S.p.A.	20	—	Products and services related to the start-up phase of the National Strategic Hub
W.A.Y. S.r.l.	1	2	Deferred costs for the provision of customized platforms, application offers, fixed and mobile voice services
Other minor companies	1	—	
Total trade and miscellaneous receivables and other current assets	**23**	**17**	
Miscellaneous payables and other non-current liabilities	**—**	**2**	Deferred subscription charge revenues from INWIT S.p.A.
Trade and miscellaneous payables and other current liabilities			
INWIT S.p.A.	—	171	Supply of services for BTS sites, monitoring and security services, management and maintenance services
ITALTEL S.p.A.	12	—	Supply contracts connected with investment and operation
Movenda S.p.A.	—	1	Supply and certification of SIM CARDS, software systems
TIMFin S.p.A.	2	3	Cost of the risk for loans
W.A.Y. S.r.l.	8	2	Supply, installation and technical assistance services for geolocation equipment provided as part of offers to TIM customers, software development
Total trade and miscellaneous payables and other current liabilities	**22**	**177**	

STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2022	2021	Type of contract
Purchase of intangible, tangible and rights of use assets on an accrual basis			
INWIT S.p.A.	7	7	IRU acquisition of backhauling connections, supply of plants, installation and related activations for the extension of indoor radio mobile coverage relating to TIM offerings to end customers
ITALTEL S.p.A.	32	—	Software development, FTTH design for FiberCop works, supply of hardware and software, installations of hardware and engineering services for the network platforms
Movenda S.p.A.	—	1	Supply and development of system software
Total purchase of intangible, tangible and rights of use assets on an accrual basis	**39**	**8**	

TIM S.p.A. has issued guarantees on behalf of subsidiaries, associates and joint ventures for a total of 5,588 million euros, net of back-to-back guarantees received (5,542 million euros at December 31, 2021).

In particular, the following is noted: 3,750 million euros on behalf of Telecom Italia Capital S.A. (3,532 million euros at December 31, 2021); 1,183 million euros on behalf of Telecom Italia Finance S.A. (1,348 million euros at December 31, 2021); 200 million euros on behalf of the Sparkle group (281 million euros at December 31, 2021); 99 million euros on behalf of Olivetti S.p.A. (107 million euros at December 31, 2021); 116 million euros on behalf of Telenergia S.p.A. (128 million euros at December 31, 2021).

Transactions with other related parties (through directors, statutory auditors and key managers, as well as participants in shareholder agreements pursuant to Article 122 of the Consolidated Law on Finance)

Details are provided below of the transactions with:

- Vivendi Group and the companies of the group that it belongs to;
- Cassa Depositi e Prestiti Group and Group subsidiaries;
- Companies related through Directors, Statutory Auditors and Key Managers with strategic responsibilities.

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	Type of contract
Revenues			
Cassa Depositi e Prestiti Group	80	22	IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services
Total revenues	**80**	**22**	
Acquisition of goods and services			
Cassa Depositi e Prestiti Group	4	2	Supply of cloud enabling services for the award of cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, Concession of the installation of sheaths for telecommunication cables along the motorway segments (occupation of soil and movement of cables), use and maintenance of the former Metroweb network of Milan and Genoa (primary network portion)
Havas Group	69	74	Purchase of media space on behalf of TIM and development and delivery of advertising campaigns
Vivendi group	4	3	Operative management of the Telecom Italia S.p.A. on-line store platform called "TIM I Love Games" and related developments and supply of the TIM Cloud Gaming (TIMGAMES) services in SaaS mode
Total acquisition of goods and services	**77**	**79**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	Type of contract
Net financial debt			
Non-current financial assets	**1**	**1**	Non-current financial receivables arising from lease contracts for Cassa Depositi e Prestiti
Other statement of financial position line items			
Trade and miscellaneous receivables and other current assets			
Cassa Depositi e Prestiti Group	27	20	IRU transfer of rights to use dark fiber installation and infrastructures; supply of housing, dark fiber maintenance and dedicated GEA/Giganet connectivity services, fixed and mobile voice services and devices, Microsoft licenses, application outsourcing services, cloud services, maintenance services
Total trade and miscellaneous receivables and other current assets	**27**	**20**	
Miscellaneous payables and other non-current liabilities			
Cassa Depositi e Prestiti Group	19	23	Deferred subscription charges revenues
Total miscellaneous payables and other non-current liabilities	**19**	**23**	
Trade and miscellaneous payables and other current liabilities			
Cassa Depositi e Prestiti Group	17	9	Supply of cloud enabling services for the award of cloud computing services, security, the development of on-line services and portals and applicative cooperation for the Public Administrations, Concession of the installation of sheaths for telecommunication cables along the motorway segments (occupation of soil and movement of cables), use and maintenance of the former Metroweb network of Milan and Genoa (primary network portion)
Havas Group	30	34	Purchase of media space on behalf of TIM and development and delivery of advertising campaigns
Vivendi group	2	1	Operative management of the Telecom Italia S.p.A. on-line store platform called "TIM I Love Games" and related developments and supply of the TIM Cloud Gaming (TIMGAMES) services in SaaS mode
Total trade and miscellaneous payables and other current liabilities	**49**	**44**	

STATEMENT OF CASH FLOWS LINE ITEMS

(million euros)	2022	2021	Type of contract
Purchase of intangible and tangible assets on an accrual basis	**3**	**15**	Concession of the installation of sheaths for telecommunication cables along the motorway segments (occupation of soil and movement of cables), use and maintenance of the former Metroweb network of Milan and Genoa (primary network portion) to Cassa Depositi e Prestiti Group
Dividends paid			
Cassa Depositi e Prestiti Group	—	15	Dividends
Vivendi group	—	36	Dividends
Total dividends paid	**—**	**51**	

Transactions with pension funds

The most significant amounts are summarized as follows:

SEPARATE INCOME STATEMENT LINE ITEMS

(million euros)	2022	2021	Type of contract
Employee benefits expenses			Contributions to pension funds
Fontedir	7	8	
Telemaco	59	56	
Total Employee benefits expenses	**66**	**64**	

STATEMENT OF FINANCIAL POSITION LINE ITEMS

(million euros)	12/31/2022	12/31/2021	Type of contract
Trade and miscellaneous payables and other current liabilities			Payables for contributions to pension funds
Fontedir	3	3	
Telemaco	18	18	
Total trade and miscellaneous payables and other current liabilities	**21**	**21**	

Remuneration to key managers

In 2022, the total remuneration recorded on an accrual basis by TIM S.p.A. in respect of key managers amounted to 20 million euros (32 million euros at December 31, 2021). The figure breaks down as follows:

(million euros)	2022	2021
Short-term remuneration	13	8
Long-term remuneration	1	—
Employment termination benefit incentives	4	18
Share-based payments (*)	2	6
Total	**20**	**32**

(*) These refer to the fair value, accrued to December 31, 2022, of rights under the incentive plans of TIM S.p.A. (Long Term Incentive and Stock Options Plan).

Short-term remuneration is paid during the reference year, and, at the latest, within the six months following the end of that period.

In 2022, the contributions paid in to defined contribution plans (Assida and Fontedir) by TIM S.p.A. or by subsidiaries of the Group on behalf of key managers, amounted to 212 thousand euros (140 thousand euros at December 31, 2021).

With regard to the remuneration of directors and statutory auditors due for the year 2022, pursuant to Article 2427, no. 16 of the Italian Civil Code, reference should be made to the Compensation Report, available at the Company's headquarters and on the Company's website at the following address: www.gruppotim.it/it/gruppo/governance/remunerazione/relazione.html.

In 2022, “Key managers”, i.e. those who, directly or indirectly, have the power and responsibility for the planning, management and control of TIM Group operations, including directors, were the following:

Directors:		
Pietro Labriola		Managing Director and Chief Executive Officer of TIM S.p.A.
		General Manager of TIM S.p.A.
	(1)	Diretor Presidente TIM S.A.
Managers:		
Alberto Maria Griselli	(2)	Diretor Presidente TIM S.A.
Giovanna Bellezza	(3)	a.i. Head of Human Resources, Organization & Real Estate
Adrian Calaza Noia	(4)	Chief Financial Office
Paolo Chiriotti	(5)	Chief Human Resources, Organization, Real Estate & Transformation Office
	(6)	Chief Human Resources, Organization & Real Estate Office
	(7)	Chief Human Resources & Organization Office
Simone De Rose		Head of Procurement
Stefano Grassi	(8)	Head of Security
Massimo Mancini		Chief Enterprise Market Office
Giovanni Gionata Massimiliano Moglia		Chief Regulatory Affairs Office
Agostino Nuzzolo		Head of Legal & Tax
Claudio Giovanni Ezio Ongaro		Chief Strategy & Business Development Office
Elisabetta Romano	(9)	Chief Network, Operations & Wholesale Office
	(10)	Chief Executive Officer of TI Sparkle
Giovanni Ronca	(11)	Chief Financial Office
Andrea Rossini	(12)	Chief Consumer, Small & Medium Market Office
Eugenio Santagata	(13)	Chief Public Affairs & Security Office
		Chief Executive Officer of Telsy
Elio Schiavo	(14)	Chief Enterprise and Innovative Solutions Office
Stefano Siragusa	(15)	Chief Executive Officer of Noovle
	(16)	Chief Network, Operations & Wholesale Office

(1) To January 31, 2022
(2) From February 1, 2022
(3) To March 29, 2022
(4) From March 1, 2022
(5) From March 30, 2022 to August 2, 2022
(6) From August 3, 2022 to October 16, 2022
(7) From October 17, 2022
(8) To April 8, 2022
(9) From August 3, 2022
(10) From August 3 to November 16, 2022
(11) To February 28, 2022
(12) From February 21, 2022
(13) From April 9, 2022
(14) From May 16, 2022
(15) From November 29, 2022
(16) To August 2, 2022

NOTE 37
EQUITY COMPENSATION PLANS

Equity compensation plans in force at December 31, 2022, are used for attraction and retention purposes, and as a long-term incentive for the managers and employees of the Group.

However, it should be noted that these plans do not have any significant effect on the economic result or on the financial position or on cash flows at December 31, 2022.

A summary is provided below of the plans in place at December 31, 2022. For more information on the plans in place at December 31, 2021, see the Separate Financial Statements of TIM S.p.A. at December 31, 2021.

Description of stock option plans

TIM S.p.A. 2022-2024 Stock Option Plan

The Shareholders' Meeting held on April 7, 2022, approved the one-shot 2022-2024 Stock Option Plan. The Plan aims to encourage Beneficiaries to create value for the Company's shareholders, aligning management's interests with the interests of TIM shareholders in terms of achieving the qualified objectives of the Industrial Plan and growth in the value of the Share in the medium-term. The Plan intends to also assure the possibility of attracting new managers from the outside, as the Industrial Plan is implemented.

The 2022-2024 Stock Options Plan is intended for the CEO, Top Management and a select number of managers of the TIM Group who hold key roles in terms of achieving the Strategic Plan objectives. Addressees are, in addition to the CEO, broken down into three pay opportunity brackets according to the contribution and impact of the role held on the company's strategic objectives; for each bracket, the number of option rights attributed at target, is determined.

The Plan has a strike price of 0.4240 euros, a three-year vesting period (1/1/2022-12/31/2024) and a two-year exercise period (from approval of the 2024 financial statements and through to the next two years).

The following performance conditions are also envisaged for the three-year period 2022-2024:

- Cumulative (reported) Economic-financial indicator (EBITDA-CAPEX) with a weight of 70%
- ESG indicators with a total weight of 30%, structured into:
  - percentage of women in positions of responsibility (15%)
  - percentage of consumption of renewable energies (15%).

The level of achievement of the indicators determines the accrual of option rights over an interval that ranges from -10% to + 10% with respect to the target number allocated per bracket.

A cap is also envisaged that is commensurate to the maximum economic benefit, calculated by applying a normal value of the share at the moment of assessment of the performance conditions (2024 financial statements), assumed as 1.5 euros, to the number of option rights assigned at target. The cap is applied when the option rights accrue and impacts the number of option rights that can be assigned.

The clawback clause also applies to all addressees of this plan, up to the point of exercise of the option rights.

At December 31, 2022, there were a total of 131 addressees and the number of options assigned at target is 206,210,000.

For more details, see the information document on the initiative available for consultation at the link Information Document on the 2022-2024 Stock Options Plan (2022-2024 SOP Information Document).

The level of achievement of the indicators determines the accrual of option rights over an interval that ranges from -10% to + 10% with respect to the target number allocated per bracket.

A cap is also envisaged that is commensurate to the maximum economic benefit, calculated by applying a normal value of the share at the moment of assessment of the performance conditions (2024 financial statements), assumed as 1.5 euros, to the number of option rights assigned at target. The cap is applied when the option rights accrue and impacts the number of option rights that can be assigned.

The clawback clause also applies to all addressees of this plan, up to the point of exercise of the option rights.

At December 31, 2022, there were a total of 131 addressees and the number of options assigned at target is 206,210,000.

For more details, see the information document on the initiative available for consultation at the link Information Document on the 2022-2024 Stock Options Plan (https://www.gruppotim.it/content/dam/gt/investitori/doc---avvisi/anno-2022/ita/Doc-informativo-Piano-stock-opt/ion-22-24.pdf).

Description of compensation plans

TIM S.p.A. - Long Term Incentive Plan 2020-2022

The Shareholders' Meeting of April 23, 2020 approved the launch of the rolling and equity based long-term incentive plan called LTI 2020-2022.

The Plan envisaged three incentive cycles, connected with the performance three-year periods 2020-2022, 2021-2023, 2022-2024; over time, two of the three incentive cycles have been launched: 2020-2022, 2021-2023.

Each cycle of the plan is divided into two parties:

- **Performance Share**: free allocation of Company ordinary shares, the maturity of which is subject to an access gate and two performance conditions, given below.
- **Attraction/Retention Share**: free allocation of Company ordinary shares, the maturity of which is subject to the continuity of the employment relationship with TIM or TIM Group companies.

In relation to the Performance Share component, the performance conditions are as follows:

- access gate, represented by the value of the security, which at the end of each cycle must be equal to or greater than the value of the security at the start of the same cycle (refer to the normal value of the share equal to the average of the official closing prices of the Stock Exchange 30 days prior to the start and end of the Plan cycle);
- NFP/EBITDA ratio, with relative weighting equal to 40%;
- Relative performance (TSR) of the ordinary share compared to a basket of Peers, with a relative weighting of 60%.

A payout bonus/malus mechanism equal to 4% is applied to both components (Performance Share and Attraction/Retention Share), linked, in equal measure,

- to the percentage growth of use of renewable energy out of total energy and to the reduction of indirect emissions of CO2 (2020-2022 cycle);
- to the percentage growth of use of renewable energy out of total energy and the increase in the female presence in the managerial population (2021-2023 cycle).

Target recipients are the Chief Executive Officer, the Top Management and a selected segment of TIM Group management.

For the CEO, 100% of the Pay Opportunity is linked to the Performance Share component. For the remaining recipient managers, 70% of the Pay Opportunity is linked to the Performance Share and the remaining 30% to the Attraction/Retention Shares.

On April 7, 2022, the Shareholders' Meeting approved, after acknowledging the changes in scenario, the obsolescence of the 2020-22 Long Term Incentive Plan and replaced the third cycle of this plan with the new 2022-2024 Stock Options Plan described previously.

2020-2022 Cycle

The final results of the performance indicators tied to this cycle will be submitted for approval by the Board of Directors on March 15, 2023.

Valuation at December 31, 2022 of the gate to accessing maturity of the performance shares is below the value of the share at the Plan start-up: failure to satisfy the Gate condition determines the forfeiture of 37,201,463 performance shares at target and the maintenance - for the 102 recipients continuing their employment with TIM or Group subsidiaries at 12/31/2022 - of the right to receive a total of 10,879,774 shares (attraction/retention shares), considering the application of the ESG correction factor to the comprehensive payout in the amount of + 4%.

2021-2023 Cycle

At December 31, 2022, the cycle provides for the 144 recipients to be entitled to receive an award of 42,104,350 shares upon achievement of the target, subject to:

- the gate condition and application of the ESG correction for performance shares;
- application of the ESG correction and continuity of the contract of employment for attraction/retention shares.

NOTE 38

SIGNIFICANT NON-RECURRING EVENTS AND TRANSACTIONS

The impact of non-recurring events and transactions on equity, profit, net financial debt and cash flows is set out below in accordance with Consob Communication DEM/6064293 dated July 28, 2006:

(million euros)		Equity	Profit (loss) for the year	Net financial debt	Cash flows (*)
Carrying amount	**(a)**	**14,252**	**(3,077)**	**22,139**	**(3,005)**
Revenues - Revenue adjustments		—	—	—	—
Other income		23	23	6	(6)
Acquisition of goods and services - Expenses related to agreements and the development of non-recurring projects		(30)	(30)	29	(29)
Employee benefits expenses - Charges connected to corporate reorganization/restructuring and other costs		(537)	(537)	425	(425)
Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers for other provisions and charges		(75)	(75)	400	(400)
Other operating expenses - Sundry expenses		(1)	(1)	53	(53)
Net gains on disposals of other investments		313	313	(1,265)	1,265
Goodwill Impairment loss		—	—	—	—
Other finance expenses		(10)	(10)	—	—
Tax realignment pursuant to Decree Law 104/2020		(1,964)	(1,964)	—	—
Total non-recurring effects	**(b)**	**(2,281)**	**(2,281)**	**(352)**	**352**
Figurative amount	**(a-b)**	**16,533**	**(796)**	**22,491**	**(3,357)**

(*) Cash flows refer to the increase (decrease) in Cash and cash equivalents during the year.

Flows relating to "Other operating expenses - Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers and other provisions and charges" include the effects connected with use of the Contractual risk provisions for onerous contracts (IAS 37).

More specifically, in 2021, the net present value of the negative margin relating to contracts with certain counterparties for multimedia contents offers, including those between TIM and DAZN, was set aside.

Starting from the 2022 financial year, use of the aforementioned Provision over the contractual term makes it possible to offset the negative item of the margin (EBITDA) - referring to both the operating performance of the business and commitments in terms of prices that TIM is contractually obliged to pay to counterparties - thereby obtaining a null operating margin (organic) for the content business.

From a financial viewpoint, the negative margin covered by the Risks Provision has an equal impact on the Net Financial Position and cash flows. For the DAZN contract, TIM is contractually obliged to pay advance installments for each year (July 1-June 30, corresponding to each championship season).

In August 2022, TIM and DAZN reached a new agreement that - in amending the clauses previously in place - allows DAZN to distribute football rights to show the TIM Serie A championship matches through any third party, surpassing the previous system of TIM exclusivity. The new contractual structure has no impact on TIM customers, who continue to enjoy matches through TimVision, the most advantageous streaming platform with the best selection of content available on the market. At the same time, the objective is achieved of distributing rights over multiple platforms with a view to developing a more sustainable economic model that would also be less volatile.

During 2022, TIM S.p.A. also recorded a provision of 41 million euros for onerous contracts relating to a multi-year agreement stipulated in 2021 which committed the Company to minimum purchases and the total estimated cost of which for the residual duration of the agreement became apparent in 2022.

The Provision for contractual risks for onerous contracts at December 31, 2022 came to 247 million euros.

The impact of non-recurring items on the separate income statement line items is as follows:

(million euros)	2022	2021
Operating revenues and other income	**23**	**(3)**
Revenue adjustments	—	(5)
Other income	23	2
Acquisition of goods and services, Change in inventories	**(30)**	**(38)**
Professional expenses, consulting services and other costs	(30)	(38)
Employee benefits expenses	**(537)**	**(358)**
Expenses related to corporate reorganization/restructuring and other costs	(537)	(358)
Other operating expenses	**(76)**	**(735)**
Expenses related to disputes and regulatory sanctions and potential liabilities related to them, and expenses related to disputes with former employees and liabilities with customers and/or suppliers for other provisions and charges	(75)	(610)
Sundry expenses	(1)	(125)
Impact on Operating profit (loss) before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**(620)**	**(1,134)**
Impairment reversals (losses) on non-current assets	**—**	**(4,120)**
Goodwill impairment loss	—	(4,120)
Impact on EBIT	**(620)**	**(5,254)**
Other income (expenses) from investments	**313**	**9**
Other finance income (expenses)	**(10)**	**(1)**
Impact on profit (loss) before tax	**(317)**	**(5,246)**
Tax realignment pursuant to Decree Law 104/2020 Art. 110	(1,964)	(3,785)
Income tax expense on non-recurring items	—	270
Impact on profit (loss) for the year	**(2,281)**	**(8,761)**

Further details on the tax realignment are provided in the Note "Income tax expense (current and deferred)" in these Financial Statements.

NOTE 39

POSITIONS OR TRANSACTIONS RESULTING FROM ATYPICAL AND/OR UNUSUAL OPERATIONS

In accordance with Consob Communication DEM/6064293 of July 28, 2006, a statement is made to the effect that in 2022 no atypical and/or unusual transactions, as defined by that Communication, were pursued.

NOTE 40

OTHER INFORMATION

Research and Development

Costs for research and development activities are represented by external costs, dedicated employee benefits expenses and depreciation and amortization. Details are as follows:

(million euros)	2022	2021
Research and development costs expensed during the year	50	56
Capitalized development costs	854	963
Total research and development costs (expensed and capitalized)	**904**	**1,019**

The decrease recorded in 2022 is due to the stabilization of implementation activities connected with the new generation networks.
In the 2022 separate income statement, depreciation/amortization charges totaling 823 million euros were recorded for development costs capitalized during the year and in prior years.
Research and development activities conducted by TIM S.p.A. are detailed in the Report on Operations ("Research and Development" section).

Lease income

TIM has entered into lease agreements for land and buildings for office use and industrial use, infrastructure sites for the mobile network and network infrastructures; at December 31, 2022, the lease installments at nominal value still to be collected totaled:

(million euros)	12/31/2022	12/31/2021
Within next year	110	115
From 1 to 2 years after the end of the reporting period	54	51
From 2 to 3 years after the end of the reporting period	53	49
From 3 to 4 years after the end of the reporting period	49	48
From 4 to 5 years after the end of the reporting period	48	45
Beyond 5 years after the end of the reporting period	45	43
Total	**359**	**351**

Public Funds

Italian Law 124/2017 requires that information on subsidies, contributions, paid assignments and economic benefits of any kind received from public administrations be provided. In relation to this, funds received are shown in the following table:

Distributing entity	Area of intervention	Received in 2022 (million euros)	Received in 2021 (million euros)
Fondimpresa/Fondirigenti	training	3	
Infratel	construction of Broadband and Ultrabroadband infrastructure	3	3
Ministry of Enterprises and Made in Italy (formerly the Ministry of Economic Development)	research and innovation	3	
ANPAL	training		53
Other (*)	innovation and Digital Divide		1
Total		**9**	**57**

(*) 2021 - MiSE, Fondimpresa/Fondirigenti, MUR (formerly MIUR)

Summary schedule of fees due to the audit firm and other firms in its network

The following schedule reports the fees due to EY S.p.A. for the audit of the 2022 financial statements, and the fees referring to the year 2022 for other audit and review services, and for other services besides audit rendered to TIM by EY and other firms in the EY network. This also includes the out-of-pocket expenses incurred in 2022 in relation to said services.

(in euros)	TIM S.p.A.		
	EY S.p.A.	Other firms of the EY network	Total EY network
Audit services:			
audit of the separate financial statements	1,011,078		1,011,078
audit of the consolidated financial statements	208,975		208,975
audit of the internal control system that supervises the process of preparation of the consolidated financial statements and limited statutory audit of the financial disclosure as at March 31 and September 30	1,043,590		1,043,590
limited audit of the half-year consolidated financial statements	211,318		211,318
other	276,682		276,682
Audit services with the issue of certification	64,000		64,000
Certification of compliance of the Consolidated Non-Financial Statement	78,025		78,025
Other services	65,000		65,000
Total 2022 fees due for auditing and other services to the EY network	**2,958,668**	**—**	**2,958,668**
Out-of-pocket expenses	27,765		27,765
Total	**2,986,433**	**—**	**2,986,433**

NOTE 41
EVENTS SUBSEQUENT TO DECEMBER 31, 2022

TIM successfully placed an 850 million euro bond with 5-year maturity

Following approval by the Board of Directors on January 18, 2023 and after completion of bookbuilding, TIM S.p.A. has successfully placed an 850-million euro fixed-rate unsecured bond offered to institutional investors.

The proceeds from the new issue will be used to optimize and refinance the maturities of existing debt.

The details are shown below:

Issuer: TIM S.p.A.

Amount: 850 million euros

Settlement date: January 27, 2023

Maturity: February 15, 2028

Coupon: 6.875%

Issue price: 100.0%

Redemption price: 100.0%

The bond regulation sets out various commitments typical of these types of transactions for the issuer, including the limit of granting guarantees over its assets or implementing extraordinary corporate transactions, except where certain covenants are met.

The bond was listed on the Luxembourg stock exchange Euro MTF market. The ratings agencies Moody's, S&P and Fitch have attributed a rating to the bond respectively of B1, B+ and BB-.

TIM: non-binding offers for the purchase of Netco

On February 2, 2023, TIM reported having received from Kohlberg Kravis Roberts & Co. L.P. ("KKR") a non-binding offer ("KKR NBO") for the purchase of a stake in a newco being established, coinciding with the managerial and infrastructural scope of the fixed network, including the assets and business of FiberCop, as well as the holding in Sparkle (the "Netco"). The non-binding offer refers to a share to be defined, without prejudice to the fact that the purchase would result in the loss of vertical integration with respect to TIM. The TIM Board of Directors - which met on February 2, 2023 to start the process relating to the examination of the non-binding offer - decided to meet again on February 24, 2023 to resolve on the non-binding offer received from KKR for NetCo, also notifying its willingness to assess any alternatives as may become concrete in the meantime and continue talking to its stakeholders.

In connection with the press news regarding the non-binding offer on TIM's fixed infrastructure presented by KKR, on the request of Consob, the Company has clarified that unless otherwise agreed by the parties, the offer shall last for 4 weeks from the date on which it was submitted (February 1) and the Board of Directors would be meeting in the meantime to discuss the offer and make the relevant decisions.

As is standard practice for transactions of this type, the non-binding offer is only approximate and is subject to analyses, investigations and assessments to be carried out in the meantime, also discussing this with KKR. On the other hand, and as already reported, TIM is ready to consider alternative options.

Thereafter, on February 21, 2023, TIM reported having received a letter from KKR extending the deadline of this offer to March 24, 2023. More specifically, as indicated in the letter, the extension of the deadline is due to a request made by the government to have another four weeks within which to carry out a joint analysis of the publishing aspects of the transaction, concerning the powers that can be exercised by the government in the sector. KKR has, however, confirmed that is willing to continue a constructive dialog with TIM and proceed with due diligence.

On February 24, 2023, TIM S.p.A.'s Board of Directors examined the contents of the KKR NBO and the letter of extension received on February 21, 2023, also with the help of the analyses and investigations carried out by the management with the support of the advisors. In light of the information received, the Board has much appreciated the interest expressed in said NBO, despite considering that it does not fully reflect the value of the asset and TIM's expectations, also in terms of the sustainability of the company resulting from the operation considered therein. Therefore, in order to foster the alignment of the conditions of the operation proposed with respect to the strategic context relevant to TIM, the Board has resolved to make certain specific information available to KKR - on a non-exclusive basis - and to request the additional indications necessary to fully understand the topics and economics of the proposal. The above is with the aim of receiving an improved offer following such exchanges of information, by the deadline of March 31, 2023.

On March 5, 2023, TIM reported having received from a consortium consisting of CdP Equity S.p.A. (CDPE) and Macquarie Infrastructure and Real Assets (Europe) Limited, acting on behalf of a group of investment funds managed or assisted by the Macquarie Group (the "Consortium"), a non-binding offer (the "Consortium NBO") for the purchase of 100% of a company being established, substantially responsible for the managerial and infrastructural scope of the fixed network, including the assets and business of FiberCop and the investment in Sparkle (the "Netco").

The Board examined the contents of the Consortium NBO, also through analyses and investigations by the management and with the support of the advisors.

In light of the information received, the Board much appreciated the interest expressed in such Consortium NBO, despite considering that - just like the KKR NBO - it did not reflect the value of the asset and TIM's expectations. Therefore, in compliance with what had happened in the context of the KKR NBO, in order to foster the alignment of the conditions of the operation proposed with respect to the strategic context relevant to TIM, the Board has resolved to make certain specific information available to the Consortium - on a non-exclusive basis - and to request the additional indications necessary to fully understand the topics and economics of the Consortium NBO.

In addition, in order to allow both the Consortium and KKR to submit their best offers in a defined competitive process, it appointed the Chief Executive Officer, Pietro Labriola, to start a regulated process, sending both offerers, through their advisors, a process letter setting out:

- the terms that would give them access to additional, specific information, identical for both offerers;
- the ways by which each could submit a better non-binding offer by April 18, 2023.

The Board also resolved to assign the Related Parties Committee the task of carrying out due investigations in respect of both offers.

Agreement with the trade unions pursuant to Art. 4 of Law 92/2012

On March 21, 2023, TIM S.p.A. and the Trade Unions signed an agreement pursuant to Art. 4 of Italian Law no. 92/2012. The agreement involves an incentive to take redundancy for up to 2,000 people and is valid until November 30, 2023.

NOTE 42

LIST OF INVESTMENTS IN SUBSIDIARIES, ASSOCIATES AND JOINT VENTURES

(thousands of euros)	Reg. office		Share capital (1)	Equity (1) (2)	Profit/ (loss) (1)	% Ownership	Share of equity (A) (3)		Carrying amount (B) (4)	Difference (B-A)
Investments in subsidiaries										
CD FIBER	Rome	Euro	50	44	—	100.00 %	44		43	(1)
FIBERCOP	Milan	Euro	10,000	5,526,008	457,718	58.00 %	3,205,084		2,965,611	(239,473)
NOOVLE S.p.A. Società Benefit	Milan	Euro	1,000	1,004,497	(78,209)	100.00 %	1,004,197		1,079,786	75,589
OLIVETTI S.p.A. Società Benefit	Ivrea (TO)	Euro	11,000	33,075	(13,937)	100.00 %	33,074		33,074	—
TELECOM ITALIA CAPITAL S.A.	Luxembourg	Euro	2,336	92,133	6,502	100.00 %	92,133		2,388	(89,745)
TELECOM ITALIA FINANCE S.A.	Luxembourg	Euro	1,818,692	6,097,742	89,740	100.00 %	6,060,042	(3)	5,914,971	(145,071)
TELECOM ITALIA LATAM PARTIC. E GESTÃO ADMIN.	SanPaolo (Brazil)	R$	118,926	(72,583)	(5,325)					
		Euro	21,370	(13,042)	(957)	100.00 %	(13,042)	(5)	—	13,042
TELECOM ITALIA SAN MARINO	San Marino	Euro	1,808	11,044	33,998	100.00 %	11,044		7,565	(3,479)
TELECOM ITALIA SPARKLE	Rome	Euro	200,000	216,505	(45,316)	100.00 %	323,427	(6)	587,840	264,413
TELECOM ITALIA VENTURES	Milan	Euro	10	91,841	34,156	100.00 %	91,841		63,635	(28,206)
TELECONTACT CENTER	Naples	Euro	3,000	43,058	3,853	100.00 %	43,058		12,632	(30,426)
TELENERGIA	Rome	Euro	50	10,658	1,239	100.00 %	10,658		50	(10,608)
TELSY	Turin	Euro	5,390	30,031	2,534	100.00 %	30,031		19,522	(10,509)
TIAUDIT COMPLIANCE LATAM (in liquidation)	Rio de Janeiro (Brazil)	R$	1,500	1,451	(44)					
		Euro	270	261	(8)	69.9996%	183		181	(2)
TIM BRASIL SERVIÇOS E PARTICIPAÇÕES	Rio de Janeiro (Brazil)	R$	7,169,030	11,103,756	847,323					
		Euro	1,288,189	1,995,212	152,254	0.00000001 %	—		—	—
TIM MY BROKER	Rome	Euro	10	5,692	2,041	100.00 %	5,692		10	(5,682)
TIM RETAIL	Milan	Euro	2,402	87,616	8,946	100.00 %	87,616		15,143	(72,473)
TIM SERVIZI DIGITALI	Rome	Euro	50	3,969	(12,548)	100.00 %	3,969	(5)	6,084	2,115
									10,708,535	**(280,516)**

(thousands of euros)	Reg. office		Share capital (1)	Equity (1) (2)	Profit/ (losses) (1)	Ownership (%)	Share of equity (A) (3)	Carrying amount (B) (4)	Difference (B-A)
Investments in associates and joint ventures									
AREE URBANE (in liquidation)	Milan	Euro	100	(114,180)	(3,757)	32.62 %	(37,246)	—	37,246
DAPHE 3	Milan	Euro	100	2,276,385	83,770	10.00 %	227,639	234,247	6,608
ITALTEL	Rome	Euro	5,693	50,824	5,437	17.72 %	9,006	10,262	1,256
NORDCOM	Milan	Euro	5,000	15,307	653	42.00 %	6,429	2,143	(4,286)
POLO STRATEGICO NAZIONALE	Rome	Euro	3,000	11,895	(105)	45.00 %	5,353	5,400	47
TIGLIO I	Milan	Euro	100	117	(43)	47.80 %	56	—	(56)
TIMFIN	Turin	Euro	40,000	41,924	(3,528)	49.00 %	20,543	26,950	6,407
								279,002	**47,222**

(1) Figures taken from the latest approved financial statements. For subsidiaries, the data used are taken from the IFRS-prepared financial statements.
(2) Includes profit (loss).
(3) Net of dividends to be paid.
(4) Includes investment account payments.
(5) Covered by the provision for losses of subsidiaries and associates.
(6) Figures taken from the consolidated financial statements.

CERTIFICATION OF THE FINANCIAL STATEMENTS PURSUANT TO ARTICLE 81-TER OF THE CONSOB REGULATION 11971 DATED MAY 14, 1999, WITH AMENDMENTS AND ADDITIONS

1. We, the undersigned, Pietro Labriola, as Chief Executive Officer, and Adrian Calaza Noia, as Manager responsible for preparing TIM S.p.A. financial reports, certify, having also considered the provisions of Article 154-bis, subsections 3 and 4, of Italian Legislative Decree 58 of February 24, 1998:
   - the adequacy in relation to the characteristics of the company and
   - the effective application of the administrative and accounting procedures used in the preparation of the annual financial statements for the 2022 fiscal year.
2. TIM has adopted the Internal Control – Integrated Framework Model (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission, as its framework for the establishment and assessment of its internal control system, with particular reference to the internal controls for the preparation of the financial statements.
3. The undersigned also certify that:

   3.1 The financial statements at December 31, 2022:

   a) are prepared in conformity with international accounting standards endorsed by the European Union pursuant to EC Regulation 1606/2002 of the European Parliament and of the Council of July 19, 2002 (International Financial Reporting Standards – IFRS) as well as the legislation and regulations in force in Italy with particular reference to Article 154-ter of Legislative Decree 58 of February 24, 1998 and the measures enacted for the implementation of Article 9 of Legislative Decree 38 of February 28, 2005;

   b) agree with the results of the accounting records and entries;

   c) provide a true and fair view of the financial position, financial performance and cash flows of the Company;

   3.2 The report on operations contains a reliable operating and financial review of the Company, as well as the description of its exposure to the main risks and uncertainties. The Report on Operations also contains a reliable analysis of information concerning significant related-party transactions.

March 15, 2023

Chief Executive Officer	Manager Responsible for Preparing the Corporate Financial Reports
/ signed /	/ signed /
Pietro Labriola	Adrian Calaza Noia

INDEPENDENT AUDITORS' REPORT

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Independent auditor's report pursuant to article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014
(Translation from the original Italian text)

To the Shareholders of
TIM S.p.A.

Report on the Audit of the Separate Financial Statements

Opinion

We have audited the separate financial statements of TIM S.p.A. (the Company), which comprise the statement of financial position as at December 31,2022, and the separate income statement, the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the separate financial statements give a true and fair view of the financial position of the Company as at December 31, 2022, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Separate Financial Statements* section of our report. We are independent of the Company in accordance with the regulations and standards on ethics and independence applicable to audits of separate financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the separate financial statements of the current period. These matters were addressed in the context of our audit of the separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We identified the following key audit matters:

Key Audit Matter	Audit Response
Impairment test of goodwill	
As of December 31, 2022, goodwill amounts to Euro 12,064 million and refers to the Domestic cash generating unit ("CGU"). The processes and methodologies used by the Company to evaluate and determine the recoverable amount of the Domestic CGU, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the forecast of future cash flows and to the estimate of the long-term growth and discount rates applied to the future cash flow forecasts. Considering the level of judgment required and the complexity of the assumptions applied in estimating the recoverable amount of goodwill, we considered this area a key audit matter. Disclosures related to the assessment of goodwill are reported in note 3 "Goodwill" and in note 2 "Accounting policies" in the paragraphs “Intangible assets - Goodwill”," Impairment of intangible, tangible and rights of use assets - Goodwill" and "Use of estimates".	Our audit procedures in response to the key audit matter included, among others: ► the assessment of the processes implemented by the Company with reference to the criteria and methodology of the impairment test; ► the validation of the CGUs perimeter and test of the allocation of the carrying value of the Company’s assets to each CGU; ► the assessment of the reasonableness of the future cash flow forecasts, including comparisons with sector data and forecasts, utilized in the fair value determination; ► the assessment of the consistency of the future cash flow forecasts of the Domestic CGU with the business plan; ► the assessment of the forecasts in light of their historical accuracy; ► the assessment of the reasonableness of long-term growth rates and discount rates. The procedures referred to in the previous points also concerned the analysis of the assessments performed by the independent experts appointed by the Company. In performing our analysis, we involved our experts in valuation techniques, who performed an independent recalculation and carried out sensitivity analyses on the key assumptions in order to determine which changes in the assumptions could materially affect the recoverable amount. Lastly, we reviewed the adequacy of the disclosure provided in the notes to the separate financial statements with regards to the valuation of goodwill.

Revenue recognition

TIM's revenues amounted to Euro 12,098 million as of December 31, 2022, and refer almost entirely to the telecommunications services rendered to retail and wholesale customers (other telecommunications operators).

Procedures over the accounting of revenues required significant focus in the context of our audit procedures due to (i) a highly complex accounting process due to the number of commercial offers, the number of underlying application systems and the related reconciliation processes, (ii) the presence of certain manual phases in the revenue recognition process, in particular for services provided to large customers and (iii) the complexity in estimating commitments connected to certain contracts.

The Company provides the relative disclosure in Note 24 "Revenues" of the separate financial statements.

Our audit procedures in response to the key audit matter included, among others:

- an understanding of the processes underlying the revenue recognition;
- the understanding and verification of the design and operating effectiveness of the relevant controls over the revenue recognition process;
- the analysis of the application systems supporting the revenue recognition process;
- the assessment that the accounting policy adopted for the main commercial offers is consistent with the provisions of the reference accounting standard;
- the analysis, on a sample basis, of some significant transactions relating to invoices issued and invoices to be issued, in order to verify that the contractual data and the evidence supporting the actual service rendered and / or goods transferred were consistent with the accounting policy adopted;
- the analysis of the valuation of certain contracts identified as onerous contracts;
- the analysis of the reconciliation of the management account with the accounting records in connection with the main balance sheet items related to customer relations;
- the analysis of the manual journal entries.

We also required external confirmations for a sample of customers and transactions.

Lastly, we reviewed the adequacy of the disclosure provided in the notes to the separate financial statements with regard to the revenue recognition process.

Regulatory disputes

As of December 31, 2022, TIM is involved in several regulatory disputes in progress, many of which are characterized by significant

Our audit procedures in response to the key audit matter included, among others:

counterparty requests.

The main disputes concern (i) the 28-day billing proceeding, in which AGCOM ordered TIM to reimburse customers for unused service days, (ii) the I820 proceeding, started by AGCM against TIM and other telco operators, to ascertain a possible conduct restricting market competition (iii) the I857 proceeding for a possible agreement restricting market competition in connection with the partnership with DAZN and (iv) the A514, and the related "follow-on" proposed by some other OLOs, procedure in which the AGCM charged TIM with conduct aimed at hindering the entry on the market of a new operator.

The assessment of the disputes was carried out by Management, as of 31 December 2022, based on the opinion of the external lawyers, as well as considering the latest information available.

The estimation of the risks connected to the disputes in which the Company is involved, requires a high degree of judgment by the management and, also considering the complexity of the regulatory framework, we considered this area a key audit matter.

Disclosure related to the assessment of the risks relating to the regulatory disputes in which the Company is involved is reported in note 23 "Disputes and pending legal actions, other information, commitments and guarantees".

- an understanding of the process put in place by Management for assessing disputes, accompanied by test of the effectiveness of the internal controls relevant for this process;
- inquiries with Management regarding the main assumptions made in connection with disputes;
- the analysis of the legal opinions prepared by external consultants, based on which Management has based its assessments;
- the analysis of the letters received from external lawyers following our external confirmations procedures.

Lastly, we reviewed the adequacy of the disclosure provided in the notes to the separate financial statements.

Recoverability of deferred tax assets

As of December 31, 2022, deferred tax assets amount, net of impairment, to Euro 461 million in the separate financial statements.

Deferred tax assets refer to the temporary deductible differences between the book and fiscal values of assets and liabilities in the financial statements.

The recoverability of the carrying amount of the deferred tax assets is subject to

Our audit procedures in response to the key audit matter included, among others:

- the assessment of the reasonableness of the assumptions underlying the estimation of future taxable income and the reconciliation with the figures included in the Company's business plan, taking into account the regulatory changes that took place during 2022;
- the assessment of the reasonableness of

management's evaluation and is based on the estimations of the future taxable income expected in the years in which they will be reversed.

The processes and methodologies used to evaluate and determine the recoverable amount of these assets, are based on assumptions that are in some cases complex and that, due to their nature, imply the use of judgement by Management, in particular with reference to the consistency of the forecasts of future taxable income expected by the Company with those included in the business plan.

Considering the level of judgment required and the complexity of the assumptions applied in estimating future taxable amount used to determine the recoverability of the deferred tax assets, we considered this area a key audit matter.

Disclosures related to the assessment of recoverability of deferred tax assets are reported in note 2 "Accounting policies" in the paragraphs "Income tax expense (current and deferred)" and "Use of estimates" and in note 10 "Income tax expense (current and deferred)".

the accuracy of the forecasts compared with the prior periods;

- the assessment of the Management calculations.

Lastly, we reviewed the adequacy of the disclosures provided in the notes to the separate financial statements with regards to the recoverability of deferred tax assets.

Responsibilities of Directors and Those Charged with Governance for the Separate Financial Statements

The Directors are responsible for the preparation of the separate financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

The Directors are responsible for assessing the Company's ability to continue as a going concern and, when preparing the separate financial statements, for the appropriateness of the going concern assumption, and for appropriate disclosure thereof. The Directors prepare the separate financial statements on a going concern basis unless they either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Company's financial reporting process.

Auditor’s Responsibilities for the Audit of the Separate Financial Statements

Our objectives are to obtain reasonable assurance about whether the separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these separate financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the separate financial statements, whether due to fraud or error, designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- we have obtained an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control;
- we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
- we have concluded on the appropriateness of Directors’ use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor’s report to the related disclosures in the separate financial statements or, if such disclosures are inadequate, to consider this matter in forming our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor’s report. However, future events or conditions may cause the Company to cease to continue as a going concern;
- we have evaluated the overall presentation, structure and content of the separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated with them all matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken to eliminate relevant risks or the safeguard measures applied.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the separate financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor’s report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholders of TIM S.p.A., in the general meeting held on March 29, 2019, engaged us to perform the audits of the separate and consolidated financial statements for each of the years ending December 31, 2019 to December 31, 2027.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Company in conducting the audit.

We confirm that the opinion on the separate financial statements included in this report is consistent with the content of the additional report to the audit committee (Collegio Sindacale) in their capacity as audit committee, prepared pursuant to article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion on the compliance with Delegated Regulation (EU) 2019/815

The Directors of TIM S.p.A. are responsible for applying the provisions of the European Commission Delegated Regulations (EU) 2019/815 for the regulatory technical standards on the specification of a single electronic reporting format (ESEF – European Single Electronic Format) (the "Delegated Regulation") to the separate financial statements, to be included in the annual financial report.

We have performed the procedures under the auditing standard SA Italia n. 700B, in order to express an opinion on the compliance of the separate financial statements with the provisions of the Delegated Regulation.

In our opinion, the separate financial statements have been prepared in the XHTML format in compliance with the provisions of the Delegated Regulation.

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of TIM S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and Ownership Structure of TIM S.p.A. as at December 31, 2022, including their consistency with the related separate financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and Ownership Structure as provided for by article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998, with the separate financial statements of TIM S.p.A. as at December 31, 2022, and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operations and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the separate financial statements of TIM S.p.A. as at December 31, 2022, and comply with the applicable laws and regulations.

With reference to the statement required by art. 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of TIM S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Turin, March 30, 2023

EY S.p.A.
Signed by: Ettore Abate, Auditor

As disclosed by the Directors, the accompanying separate financial statements of TIM S.p.A. constitute a non-official version which is not compliant with the provisions of the Commission Delegated Regulation (EU) 2019/815. This independent auditor's report has been translated into the English language solely for the convenience of international readers. Accordingly, only the original text in Italian language is authoritative.

LA FORZA DELLE CONNESSIONI

Other Information

Report of the Board of Statutory Auditors to the Shareholders' Meeting
pursuant to Article 153 of Italian Legislative Decree No. 58/1998

To the Company’s Shareholders' meeting

Telecom Italia – TIM S.p.A.

Dear Shareholders,

This report (hereinafter the “Report”) provides information to the shareholders of TIM S.p.A. (hereinafter also referred to as the “Company” or “TIM”) on the supervisory activities carried out by the Board of Statutory Auditors in the financial year 2022 pursuant to art. 153 of Legislative Decree 58/1998 (CLF), art. 2429 of the Italian civil code, the standards of conduct for the Board of Statutory Auditors recommended by CNDCEC (the Italian Board of chartered accountants and accounting consultants), Consob notices on company controls and the indications given in the Corporate Governance Code.
This Report is prepared as required by Consob Notice no. DEM/1025564 of 6 April 2001 and subsequent amendments and supplements.

The Board of Statutory Auditors has acquired the information necessary for the performance of the tasks of general supervision assigned to it by attending meetings of the Board of Directors and the board committees, meetings with the Company management, meetings with the External Auditor, with the Supervisory Body, with the Control Departments of the Company and with the corresponding control bodies of the TIM Group companies, through the analysis of information flows from the competent company departments, as well as further control activities.
The Board of Statutory Auditors in office as at the date of the Report was appointed by the Shareholders' Meeting on 31 March 2021 for the financial years 2021-2023

and will therefore expire with the Shareholders' Meeting called to approve the financial statements as at 31 December 2023.

The Board of Statutory Auditors is made up of the Standing Auditors Francesco Fallacara (Chairman), Angelo Rocco Bonissoni, Francesca di Donato, Anna Doro and Massimo Gambini.

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The Board of Statutory Auditors notes that, as of the date of this Report, while the health emergency caused by COVID-19 can be said to be over, the Russia/Ukraine crisis, which has led to the well-known economic consequences on world markets, is still ongoing.

In this regard, the Board of Statutory Auditors monitored the development of the economic framework during financial year 2022 and in this Report has taken into account the measures and recommendations issued by the competent authorities for the purpose of preparing the financial statements, representing the effects of the crisis and the specific control activities required. The Board of Statutory Auditors received constant information from the Company on the actions put in place to deal with the effects of the crisis, such as, *inter alia*, those aimed at addressing the increase in energy prices, the general inflationary effect and the possible application of measures related to the sanctions package put in place by European authorities. It also supervised the cyber safeguards implemented by the Company. With regard to the above, there are no items of attention to be submitted to the Shareholders' Meeting of the Company.

1. Considerations on the 2022 financial statements and on transactions undertaken by the Company of major impact on its revenues, finances and assets, and their compliance with the laws and the Company articles of association

It should be noted that TIM's financial statements have been drawn up in line and in accordance with the IAS/IFRS international accounting standards issued by the International Accounting Standards Board (IASB), endorsed by the European Union, and in force as at 31 December 2022, as well as with the provisions issued in implementation of article 9 of Legislative Decree no. 38/2005. The financial statements also include the disclosures required by Law 124/2017 (Article 1, subsections 125-129).

It should also be noted that the same financial statements have been prepared in compliance with the specifications required by Regulation (EU) no. 2019/815 ("ESEF Regulation") and, therefore, in the XHTML electronic format and present, with specific reference to TIM's consolidated financial statements as at 31 December 2022, the Inline XBRL tags of the information, according to the taxonomy indicated by the aforementioned ESEF Regulation.

The Directors' Report on Operations summarises the main risks and uncertainties and also gives an account of the business outlook.
The Company's financial statements comprise the Statement of Equity and Financial Position, the Income Statement, the Comprehensive Income Statement, the Statement of Changes in Equity, the Cash Flow statement and the Notes to the Financial Statements.
The financial statements are accompanied by the Directors' Report on Operations, the Report on Corporate Governance and Share Ownership drawn up in accordance with Article 123-*bis* of the CLF, as well as the Consolidated Non-financial Statement pursuant to Legislative Decree no. 254 of 30 December 2016 (hereinafter also NFS), drawn up by the Company in accordance with the Global Reporting Initiative (GRI) 2021 Universal Standards.

The financial statements are also accompanied by the Report on the Remuneration Policy and Compensation Paid, consisting of the 2023 Remuneration Policy and report on compensation paid in 2022.

TIM's separate financial statements and consolidated financial statements for 2022 contain the required statements of compliance by the Chief Executive Officer and the Executive responsible for preparing the corporate accounting documents.

The TIM Group consolidated financial statements for the financial year 2022 are summarised below:

in millions of euros	*Financial year 2022*
Revenues	15,788
EBITDA	5,347
Operating profit - EBIT	606
Profit/(Loss) for the year	(2,654)

Adjusted consolidated net financial debt as at 31 December 2022 totalled 25,364 million euros compared to 22,187 million euros on 31 December 2021.

The parent company TIM closed the 2022 financial year with a loss of 3,077 million euros compared to the loss of 8,314 million euros in 2021.

As indicated in the consolidated report on operations, and on the basis of the information received and as a result of the analyses conducted, it emerged that the transactions carried out by the Company in 2022 which have major impact on revenues, finances and assets, including transactions performed through companies in which the Company has a direct or indirect stake, are essentially made up as follows:

Daphne 3 S.p.A.

On 4 August 2022, TIM sold 41% of the share capital of the holding company Daphne 3, which holds a 30.2% stake in Infrastrutture Wireless Italiane (“INWIT”), to a consortium of investors led by Ardian, realising a gross consideration of 1,278 million euros and a capital gain recognised in the consolidated income statement of 171 million euros (the capital gain recognised in the income statement of the separate financial statements of TIM amounted to 313 million euros).

Movenda S.p.A.

On 25 July 2022, TIM acquired 100% of the share capital of Movenda S.p.A., which offers digital identity solutions, for a consideration of 1.5 million euros.

As of 31 December 2022, the merger by incorporation of said company into TIM S.p.A. became effective, with the accounting and tax effects taking effect as of 1 July 2022.

Polo Strategico Nazionale S.p.A.

On 4 August 2022, Polo Strategico Nazionale S.p.A. was established to design, set up and manage the infrastructure for the provision of cloud solutions and services for the Public Administration. TIM holds 45% of the share capital of said company. At the end of the year, this equity investment was posted at a value of 5.4 million euros (2.7 million euros by way of capital and 2.7 million euros as payment on capital account).

Realignment of tax values

As at 31 December 2020, TIM had benefited from the possibility of realigning the tax values to the greater value of the assets booked, specifically the value of goodwill, as envisaged by Decree Law 104/2020, Art. 110, subsections 8 and 8 bis.

In its original formulation, from 2021 this rule would have allowed the deduction of the new value recognised for tax purposes over 18 years, subject to payment of a 3% substitute tax on the realigned value.

As a result of the above, the Company legitimately recognised deferred tax assets ("DTA") of 6.6 billion euros in the financial statements for the year ended 31 December 2020, so as to reap the benefits in terms of lower IRES (corporate income tax) and IRAP (regional business tax).

As is known, article 1 of Law no. 234 of 30 December 2021 retroactively amended the aforementioned art. 110 of Legislative Decree no. 104/2020, stipulating that "*the deduction for the purposes of income tax and regional tax on productive activities of the higher value charged (...) is made, in any event, to an extent not exceeding, for each tax period, one fiftieth of said amount*", and no longer one eighteenth.

It should be borne in mind that the new provision, in derogation of the above, allowed parties who had benefited from the realignment alternatively to waive said realignment (with the right to reimbursement of the first instalment of the substitute tax paid) or maintain the deduction over 18 years, paying a further substitute tax to the extent of that established by article 176, subsection 2-ter, of Presidential Decree no. 917/1986 (up to a maximum of 16%), referring to a specific Provision for how to exercise the revocation.

Due to the extension of the tax deduction period to 50 years, an assessment had to be made in the 2021 financial statements as to the economic and financial advantage of the original option under the new regulatory provisions and the consequent recoverability of the entire amount recognised as DTAs as at 31 December 2020. The Company, therefore, decided to limit the recognition to only deferred tax assets related to the next 25 years, making a consequent write-down of 2,766 million euros for IRES, equal to 50% of the deferred tax assets recognised in 2020, and 1,059 million euros for the residual amount of the IRAP deferred tax assets recognised.

Following the publication on 29 September 2022 of the Provision of the Director of the Italian Revenues Agency regulating the timing, conditions and operating procedures for carrying out the revocation, the Board of Directors of TIM on 9 November 2022 resolved to exercise the option to revoke the goodwill realignment.

In particular, the Company carried out an economic/financial advantage assessment and considered it a priority to strengthen the process of industrial investments to support the various business areas, which are an alternative to the financial use related to the payment of the substitute tax on the realignment.

Therefore, as the conditions underlying the recognition of deferred tax assets no longer existed, they were entirely written off, for a net amount of 1,964 million euros, broken down as follows:

- cost of -2,656 million euros for the write-off of the deferred tax assets of TIM;
- income of 692 million euros for the reversal of the substitute tax that had been set aside for the realignment; in detail: recognition of a receivable of 231 million euros relating to the first instalment paid on 30/6/2021 and reversal of a payable of 461 million euros for the second and third instalments that will not be paid following the exercise of the realignment revocation. The first instalment, as provided for by the Provision, was financially recovered by offsetting it against tax payments made using the “F24 tax payment form”, which the Company carried out in December 2022, following the submission of the supplementary statement in which the revocation of the realignment was formalised.

Rights of use of 5G frequencies in Italy

On 30 September 2022, TIM paid the fifth and final instalment, amounting to 1.7 billion euros, of the total 2.4 billion euros due in accordance with the commitments undertaken by the Company following the award of the rights to use the mobile frequency bands as per the “5G Tender”, implemented in 2018 by the Ministry for Economic Development (MiSE).

In particular, in October 2018, following a public tender in which the 5 Italian mobile operators (Iliad, Fastweb, TIM, Vodafone and Wind3) participated, TIM was awarded the rights of use on all the bands involved in the tender. TIM was awarded 2x10 MHz in the 700 MHz band (blocks available from 1 July 2022), 80 MHz in the 3.6-3.8 GHz band and 200 MHz in the 26 GHz band (both bands available from 1 January 2019).

The total award amount was 2.4 billion euros, to be paid in five annual instalments, in accordance with the collection forecasts of the 2017 Budget Law, divided as follows:

2018	2019	2020	2021	2022	Total
€ 477,473,285.00	€ 18,342,110.83	€ 110,052,665.01	€ 55,026,332.50	€ 1,738,485,952.97	**€ 2,399,380,346.32**

Following the payment of the last instalment, the MiSE (now MiMit), on 4 October 2022, communicated to the guarantor banks the definitive release of the sureties that had been set up to guarantee the payment obligations.

Russia – Ukraine conflict

In February 2022, Russia launched a military operation on Ukrainian territory, the consequences of which on the global political economic balance are currently unmeasurable.

The European Union and many other countries have put in place economic sanctions against Russia and Belarus, and others may be decided later.

The TIM Group does not have a presence in Ukraine and has a very small presence in Russia through its subsidiary Telecom Italia Sparkle S.p.A., for which, to date, there have been no repercussions on commercial relations, though they do not exist, on the collection of trade receivables and assets in the country, as well as on the turnaround times of international investment projects, the changes to which, although dependent on developments in the conflict, are deemed by the Company to be insignificant at present. Future consequences cannot be ruled out if the Russia/Ukraine crisis continues.

The invasion of Ukraine by Russia opened up economic implications which could be extreme in relation to energy supply. The electricity consumed by TIM depends almost entirely on suppliers and the TIM Group was therefore naturally exposed to fluctuations in energy costs that had an impact on the achievement of business targets in terms of reducing margins and cash flows. To mitigate this exposure, among its ongoing actions for the year 2022, TIM hedged the bulk of its fixed-price requirements.

In relation to the Russia-Ukraine war, TIM, which is acting in coordination with the Agency for National Cyber Security (ACN), has raised the alert level in relation to Cyber risk.

EVENTS AFTER 31 DECEMBER 2022

Note the following.

Placement of an 850-million-euro bond with 5 year maturity

Following its approval by the Board of Directors on 18 January 2023, and upon completion of the bookbuilding activities, TIM successfully placed an 850-million-euro unsecured bond with a fixed annual rate of 6.875%, offered to institutional investors.

The bond has been listed on the Euro MTF market of the Luxembourg Stock Exchange. The rating agencies Moody's, S&P and Fitch gave the bond a rating of B1, B+ and BB- respectively.

Non-binding offers for the purchase of an equity investment in a company to be set up, coinciding with the management and infrastructure perimeter of the fixed network ("Netco")

On 2 February 2023, TIM disclosed that it had received a non-binding offer from Kohlberg Kravis Roberts & Co. L.P. ("KKR") ("KKR NBO") for the purchase of an equity investment in a company to be set up, coinciding with the management and infrastructure perimeter of the fixed network, including the assets and activities of FiberCop, as well as the equity investment in Telecom Italia Sparkle (known as "Netco"). The non-binding offer refers to an equity investment to be defined, on the understanding that the purchase would result in the loss of vertical integration with TIM. The

Board of Directors of TIM met on 2 February 2023 to initiate the process related to the examination of the non-binding offer and decided to reconvene on 24 February 2023 to decide on the non-binding offer received from KKR for NetCo, also communicating its willingness to evaluate any alternative that might come to light in the meantime and to continue dialogue with its stakeholders.

On 24 February 2023, the Board of Directors of TIM examined the content of the KKR NBO, as well as the letter of extension received on 21 February 2023. In light of the information received, the Board appreciated the interest expressed in the aforementioned NBO, while considering that it did not reflect the value of the asset or TIM’s expectations, including in terms of the sustainability of the company resulting from the operation contemplated therein. Therefore, in order to facilitate the alignment of the terms of the proposed operation with the strategic framework relevant to TIM, the Board resolved to make available to KKR – on a non-exclusive basis – certain specific information and to request further indications required to fully understand the *economic and financial* assumptions of the proposal. With the aim of receiving a better offer, the foregoing follows the aforementioned information exchanges and by the deadline of 31 March 2023.

On 5 March 2023, TIM announced that it had received a non-binding offer from a consortium formed by CDP Equity S.p.A. (CDPE) and Macquarie Infrastructure and Real Assets (Europe) Limited, acting on behalf of a group of investment funds managed or advised by the Macquarie group (the “Consortium”) (“Consortium NBO”) for the purchase of 100% of a company to be incorporated, which would essentially be responsible for the management and infrastructure perimeter of the fixed network, including FiberCop’s assets and activities, as well as the equity investment in Telecom Italia Sparkle (“Netco”).

The Board of Directors examined the content of the Consortium NBO. In the light of the information provided, the Board of Directors appreciated the interest expressed in the aforesaid Consortium NBO, despite considering that – in the same way as the KKR NBO – it did not reflect the value of the asset or TIM's expectations.

Therefore, as per the context of the KKR NBO, in order to facilitate the alignment of the terms of the proposed operation with the strategic framework relevant to TIM, the Board resolved to make available to the Consortium – on a non-exclusive basis – certain specific information and to request further indications required to fully understand the economic and financial assumptions of the Consortium NBO.

Furthermore, in order to allow both the Consortium and KKR to submit their improved offers in a defined competitive process, the Board appointed the Chief Executive Officer, Pietro Labriola, to launch a process governed by a formalised procedure whereby both bidders, through their advisors, would be notified:

- of the terms on which they would be given access to further specific information, the same for both bidders;
- of the forms through which each of them could submit an improved non-binding offer by the deadline of 18 April 2023.

Furthermore, the Related Parties Committee is tasked with carrying out the preliminary investigation in relation to the offers received given the related-party nature of some of the bidders.

2. REPORT OF ANY ATYPICAL AND/OR UNUSUAL TRANSACTIONS, INCLUDING INTRA-GROUP

The Board of Statutory Auditors found no atypical and/or unusual third party transactions over the financial year 2022.
However, the Board of Statutory Auditors continued its investigations and analyses with regard to the characteristics, execution and accounting of certain contracts stipulated mainly in the years 2020 and 2021, while monitoring the new provisions made during 2022 and the utilisation of the funds previously allocated.

In its analysis of the above transactions, the Board of Statutory Auditors found contractual characteristics (e.g. minimum guaranteed amounts in favour of counterparties; contractual form too concise; lack of formalised analysis of the risks underlying the execution of contracts; etc.) and methods of execution that highlighted procedural shortcomings and weaknesses in the Internal Controls and Risk Management System, which it promptly brought to the attention of the Board of Directors. The aforementioned shortcomings and weaknesses were also the subject of a note to the Board of Directors and a communication by the Board of Statutory Auditors to Consob pursuant to art. 149 of the Consolidated Law on Finance, sent after the Board of Directors' approval of the half-year consolidated financial statements for 2022. As a result of the aforementioned reports by the Board of Statutory Auditors, Management initiated a programme of actions to strengthen the Internal Control and Risk Management System (ICRMS), which will be discussed in detail later in this Report.

3. ASSESSMENT OF THE ADEQUACY OF THE INFORMATION PROVIDED IN THE DIRECTORS' REPORT ON OPERATIONS CONCERNING ATYPICAL AND/OR UNUSUAL TRANSACTIONS, INCLUDING INTRA-GROUP AND RELATED PARTY TRANSACTIONS.

The updated version of the internal regulations on the Management of Related Party Transactions was last approved by the Board of Directors in 2021, incorporating the changes made following Consob Resolution no. 21624/2020, and came into force on 1 July 2021.

The Company's financial statements contain information on Related Party Transactions and the Board of Statutory Auditors, in the performance of its activities, has carried out careful analyses and assessments on the process adopted by the Company in certain transactions, also with the involvement of consultants appointed by the Board of Statutory Auditors for the findings of economic advantage of those transactions. The Board of Statutory Auditors, at the end of its verifications and investigations, has not found, at least up to the date of this report, any atypical and/or unusual transactions carried out in FY 2022 with Related Parties (including Group companies).

In this context, the Board of Statutory Auditors believes that the report on the Company’s transactions with related and intra-group parties, provided in the notes to the separate financial statements of TIM and the consolidated financial statements of the TIM Group, should be considered adequate.

The transactions with Directors' interests or with other Related Parties, were subjected to the transparency procedure set out in the applicable regulations.

The Board of Statutory Auditors acknowledges that the information relating to the principal intra-group transactions and transactions with other related parties executed in 2022, and the description of their characteristics and related economic effects, is contained in the notes to the separate financial statements of TIM S.p.A. and to the consolidated financial statements of the TIM Group.

It should be noted that, based on the relevant assessments already carried out by the Related Parties Committee during the second half of 2021, Cassa Depositi e Prestiti and its subsidiaries were included in the scope of related companies.

Over the 2022 financial year, there were both intra-group and non-intra-group Related Party transactions.
Intra-group transactions analysed by the corporate bodies in 2022, the effects of which are reported in the financial statements, are all ordinary in nature, as they essentially consist of transactions with no significant interests of other non-intra-group Related Parties. These were regulated applying essentially normal conditions determined according to standard parameters, reflecting the actual use of the services and were carried out in the interest of Group Companies, as they were aimed at optimising use of the Group's resources.
The documentation submitted to the company bodies shows that the transactions with Related Parties other than intra-group transactions, examined by the Board of Statutory Auditors, are also of an ordinary nature

(since they fall within the ordinary exercise of operating activities or related financial activities) and/or concluded at conditions equivalent to market or standard conditions and are in the interest of the Company. These transactions have been periodically reported to us by the Company.

During financial year 2022, we attended meetings of the Related Parties Committee, during which the Committee expressed:

- a binding favourable opinion on the execution of a "Transaction of Greater Importance", as defined in art. 4, subsection 1, letter a) of the aforementioned regulation and art. 7 of the Company's Related Party Transactions Procedure, following the awarding of the European tender, by means of an open procedure, through a public-private partnership contract, for the construction and management of the National Strategic Hub. For a full description of the Transaction, please refer to the Disclosure Document made available to the public concerning Transactions of Greater Importance with Related Parties and drafted pursuant to article 5 of Consob Regulation no. 17221 of 12 March 2010 concerning "Transactions with Related Parties" and subsequent amendments;
- favourable opinion on some related party transactions of "lesser importance", having assessed the Company's interest in carrying out the transaction as well as the appropriateness and advantage of the related conditions.

The Board of Statutory Auditors had no reason to raise objections as to whether all the transactions examined by it during the reporting period were in the Company's interest. The Board of Statutory Auditors carefully and constantly monitored the transactions brought to the attention of the committee, requesting further analysis and insights where deemed necessary.

The effects of all of the above related party transactions for the financial year 2022 are fully reflected in the financial statements.

The Board of Statutory Auditors monitored compliance with the Related Parties Procedure and the correctness of the process followed by the Board and the relevant Committee, on the subject of qualification of Related

Parties, agreeing, inter alia, with the assessments expressed by the RPT Committee regarding the qualification of TIM's Related Parties and on which they have nothing to report.

4. REMARKS AND PROPOSALS ON THE REPORTING REFERENCES AND NOTES CONTAINED IN THE REPORT OF THE INDEPENDENT AUDITOR.

On 30 March 2023, the independent auditor EY S.p.A. (hereinafter also referred to as “EY” or “Auditor”) issued the reports pursuant to art. 14 of Legislative Decree no. 39/2010 and art. 10 of Regulation EU no. 537/2014, attesting that the separate financial statements of TIM S.p.A. and the consolidated financial statements of the TIM Group as at 31 December 2022 provide a truthful and correct representation of the equity and financial position, the economic results and cash flows for the year ended as at that date, in compliance with the International Financial Reporting Standards adopted by the European Union, as well as with the provisions issued in implementation of Article 9 of Legislative Decree no. 38 of 28 February 2005.

In these documents, the auditing firm EY - pursuant to art. 154-ter CLF, as amended by art. 25 of Law no. 238 of 23/12/2021 - also issued its opinion on the compliance of the draft financial statements and the consolidated financial statements, included in the annual financial report, with the provisions of the Delegated Regulation (EU) 2019/815 of the Commission of 17 December 2018, based on the auditing standard (SA Italia 700B).

As part of its general duty to monitor compliance with the law and the Bylaws, the Board notes that the Company has complied with the provisions of the said EU Regulation No. 2019/815.

In the report on the consolidated financial statements as at 31 December 2022, the Auditor concludes as follows: “*in our opinion, the consolidated financial statements provide a truthful and correct representation of the equity and financial position of the Group as at 31 December 2022, the economic results and cash flows for the year ended as at that date, in compliance with the International Financial Reporting Standards adopted* *by the European Union, as well as with the provisions issued in implementation of Article 9 of Legislative Decree no. 38 of 28 February 2005*".

In the report on the separate financial statements as at 31 December 2022, the Auditor concludes as follows: "*in our opinion, the annual financial statements provide a truthful and correct representation of the equity and financial position of the Company as at 31 December 2022, the economic results and cash flows for the year ended as at that date, in compliance with the International Financial Reporting Standards adopted by the European Union, as well as with the provisions issued in implementation of Article 9 of Legislative Decree no. 38 of 28 February 2005*".

On the same date, EY also issued the additional Report for the Committee for Internal Control and Audit on the results of the external audit of the accounts, which also includes the declaration on the independence of the external auditor. The findings of the above report were as follows: "*In our professional opinion, having performed the related tasks, we consider the directors' approach of considering that there are no uncertain factors affecting the going concern assumption, such as should be disclosed in the financial statements, consistent with the context of the company and the evidence gathered. During the course of the audit of the Company's financial statements and the Group's consolidated financial statements for the year ended 31 December 2022, no significant shortcomings in the internal control system for financial reporting and/or the accounting system were identified. During the audit of the Company's financial statements and of the Group's consolidated financial statements closed on 31 December 2022, no significant issues were identified in respect of cases of effective or alleged non-conformity with laws and regulations or statutory provisions*."

The Board of Statutory Auditors will inform the Company's Board of Directors of the results of the external audit, to this end sending across the additional report complete with any observations.

EY also considers that the report on operations and the information in the Report on corporate governance and share ownership indicated in art. 123-*bis*, subsection 4 of the CLF are consistent with the TIM S.p.A.'s financial statements for the period and the consolidated financial statements for the TIM Group at 31 December 2022.

5. Reports on the presence of any complaints pursuant to Article 2408 of the Italian Civil Code regarding initiatives undertaken and their outcomes

From the date of the previous report (16 March 2022) until the date of this Report (30 March 2023), five complaints were received from Company shareholders, made in accordance with art. 2408 of the Italian Civil Code, in relation to which the Board of Statutory Auditors carried out the appropriate investigations, from time to time, deeming them unfounded. There are, therefore, no items to report to the Shareholders' Meeting.

6. Report on the presence of any complaints regarding initiatives undertaken and their outcomes

The procedure governing how reports are sent to the Company's Board of Statutory Auditors is currently under review.

The Company has a Whistleblowing Procedure, updated also following the assignment of the role of Supervisory Body to a separate body from the Board of Statutory Auditors, which envisages the institution of information channels able to guarantee the receipt, analysis and processing of reports made relating to internal control problems, corporate information, administrative liability of the Company, fraud or in any case behavioural anomalies in reference to TIM staff or third parties, in violation of laws and regulations and/or non-conformity with the Code of Ethics and the Organisational Model 231, as well as with the system of rules and procedures in force in the TIM Group, submitted by employees, members of company bodies or third parties, even anonymously.

Since the date of the previous report (16 March 2022) and up to the date of this report (30 March 2023), 12 reports (13 in the previous year) have been received, mostly regarding technical problems and shortcomings of a commercial and administrative nature.

The Board of Statutory Auditors investigated all these reports appropriately, with the assistance of the competent Company departments, instructing such departments where necessary to adopt appropriate solutions, but no irregularities to be communicated to the Shareholders' Meeting emerged. The Board of Statutory Auditors has welcomed the Company's efforts to promote initiatives aimed at developing a company culture characterised by correct behaviour and has repeatedly indicated to the Board of Directors the importance of focusing on correct behaviour at every stage of Company management, to such purpose promoting specific programmes aimed at its internal structure.
Some reports received and concerning members of the Board of Directors, the Board of Statutory Auditors and/or Senior Executives proved to be absolutely unfounded upon analysis.

7. REPORT ON ANY ASSIGNMENTS CONFERRED ON THE INDEPENDENT AUDITOR AND THE CORRESPONDING COSTS

In 2022, the Board of Statutory Auditors, together with the Company departments, verified and monitored the independence of the Auditor as required by the relevant laws and regulations, specifically with regard to services other than auditing (so-called "non-audit services") rendered by the Auditor to the Company.

The Company procedures, which also extend to its subsidiaries, require that each non-audit assignment be submitted for prior assessment and binding approval by the Company's Board of Statutory Auditors.
During the 2022 financial year TIM appointed EY to undertake various tasks other than the external audit of financial statements, the fees for which, before VAT and out-of pocket expenses, are summarised below.

EY S.p.A.	***in Euro***
• Review of the working papers of other independent auditors relating to INWIT S.p.A. on the limited audit of the condensed half-yearly consolidated financial statements as at 30.06.2022	25,000.00
• Verification services related to obtaining specific tax or contribution regimes: • relating to the statement of expenses incurred for R&D and technological innovation in 2021 aimed at obtaining tax credits for TIM S.p.A.; • for compliance approval pursuant to art. 35 of Legislative Decree no. 241 of 9 July 1997 on the 2021 and 2022 supplementary tax returns of TIM S.p.A. and on the 2021 domestic tax consolidation statement of the TIM Group to use the IRES tax credit offset against other taxes due;	90,000.00 4,000.00
• Other audit services (voluntary assignments): • integration of the Audit report following the appointment of the Auditor to express an opinion, in the audit report, on the compliance of the 2021 draft financial statements with the provisions of the Regulation (EU) 2019/815 of 17 December 2018 (ESEF – European Single Electronic Format), which requires issuers to prepare their annual financial reports in XHTML format. The Group Auditor's assurance activities are based on Auditing Standard (ISA Italia) 700; • audits relating to the migration process of certain corporate IT infrastructure and application systems that impact on financial reporting;	20,000.00 296,605.00
• Miscellaneous certification services: • Comfort Letter issued by EY in favour of TIM and the Joint Lead Managers for the issue of a bond on the European market based on the Base Prospectus and related activities of TIM S.p.A. • for participation in TIM tenders organised by national and supranational Public Administrations;	43,347.00 71,000.00
Overall total	**549,952.00**

In addition, during the period between 1 January 2023 and the date of this Report, TIM appointed EY to undertake the following additional tasks, different from the external audit of financial statements, the fees for which, before VAT and out-of pocket expenses, are summarised below.

EY S.p.A.	*in Euro*
• Miscellaneous certification services: • for participation in TIM tenders organised by national and supranational Public Administrations	8,500.00
• Other Services – miscellaneous services: • assignment granted in accordance with International Standard on Assurance Engagement 3402 ("ISAE 3402") for the issue of the SOC 1 report to the client Acciaierie d'Italia S.p.A. for the provision of the SAP Basis outsourcing service for 2022 by TIM.	37,000.00
Total	**45,500.00**

It should also be noted that, from 2022 onwards, the integration of the Audit report following the appointment of the Auditor to express an opinion, in the audit report, on the compliance of the draft financial statements with the provisions of the Regulation (EU) 2019/815 of 17 December 2018 (ESEF – European Single Electronic Format), which requires issuers to prepare their annual financial reports in XHTML format, is no longer an additional assignment (i.e. different from the audit of the financial statements), but supplements the fees for the external audit of the consolidated financial statements for an amount of 28,000 euros and, as such, has been removed from the above table.

In accordance with the current "Guidelines for the Conferral of Assignments on Independent Auditors", the conferral of the above assignments had been approved in advance by the Board of Statutory Auditors.

It should also be noted that, as EY, the company appointed to perform the external audit of TIM's accounts, has provided the Company and some of the Group Companies with services other than the external audit over the three financial years prior to 2022, with effect from 1 January 2022 the Company's Board of Statutory Auditors, in its capacity as the internal control and audit committee, is required – pursuant to Regulation (EU) no. 537/2014 of 16 April 2014 – to monitor the non-audit engagements assigned to the Auditor not only for the purpose of issuing the prior authorisations within its remit, but also for the purpose of verifying that, in the fourth year, the fees paid for this purpose do not exceed, with reference to the financial year 2022, the so-called "70% limit", to be calculated on the average of the fees paid in financial years 2019, 2020 and 2021 for the external audit activities performed. The Company, in order to allow the Board of Statutory Auditors to carry out the checks within its remit, has activated specific internal procedures for monitoring the aforementioned fees, in line with the reference regulations. In this regard, the Board of Statutory Auditors verified that this limit was not exceeded during the financial year 2022.

The Board of Statutory Auditors expressed an adverse opinion when it considered that the appointment of the auditing firm was not in the company's interest, or if it prudentially considered the appointment to be potentially detrimental to the auditor's independence or contrary to the EU Regulation.

8. REPORT ON ANY APPOINTMENTS CONFERRED ON PARTIES CONNECTED BY CONTINUING RELATIONSHIPS WITH THE INDEPENDENT AUDITOR AND THE CORRESPONDING COSTS

During the financial year 2022 TIM did not confer any appointment on subjects bound by continuous relationships with EY and/or companies belonging to the latter's network.

9. Report on the existence of opinions issued pursuant to law during the financial year

On 21 January 2022, pursuant to art. 2386, subsection 1 of the Italian Civil Code, the Board of Statutory Auditors expressed its favourable opinion on the appointment by co-optation of Director Pietro Labriola to replace Luigi Gubitosi, who resigned. In addition, on the same date (and on 7 April 2022, after Mr Labriola's confirmation by the Shareholders' Meeting), the Board of Statutory Auditors expressed a favourable opinion, pursuant to art. 2389, subsection 3 of the Italian Civil Code, on the proposed remuneration of Mr Labriola, as Chief Executive Officer and General Manager of the Company.

Pursuant to art. 13 of the Company Bylaws and art. 154-*bis*, subsection 1 of Legislative Decree no. 58/1998 (CLF), on 14 February 2022, the Board of Statutory Auditors expressed its favourable opinion on the appointment of the Company's executive responsible for preparing the corporate accounting documents, in the person of Adrián Calaza Noia.

In addition, the Board of Statutory Auditors issued the following favourable opinions during the financial year:

1. on 4/5/2022, pursuant to art. 2389, subsection 3 of the Italian Civil Code, for the implementation of the 2022-2024 stock option plan, which also includes the Chief Executive Officer among its beneficiaries;
2. on 30/11/2022, pursuant to art. 2386, subsection 1 of the Italian Civil Code, for the co-optation of Mr Giulio Gallazzi as Director to replace the resigning director Luca De Meo;
3. on 15/12/2022, pursuant to art. 2386, subsection 1 of the Italian Civil Code, for the co-optation of Mr Massimo Sarmi as Director to replace the resigning director Franck Cadoret.

On 15/3/2023, the Board of Statutory Auditors expressed a favourable opinion on the following proposals:

1. Proposal to the Shareholders’ Meeting of the short-term incentive plan (MBO) 2023, as well as the outline for the Chief Executive Officer;
2. Proposal to the Shareholders’ Meeting of the Long-Term Incentive Plan 2023-2025, including participation in the initiative by the Chief Executive Officer;
3. Appointment of the Supervisory Body pursuant to Legislative Decree 231/2001.

In addition, on 4/2/2022 and 15/2/2023 the Board of Statutory Auditors ascertained that its members complied with the legal requirements; on 22/2/2022 and 15/2/2023 it verified the correct application of the criteria and procedures adopted by the Board of Directors to ascertain the Directors' requirements.

The Chief Audit Executive attended all meetings of the Board of Statutory Auditors on a permanent basis, ensuring a continuous exchange of information on the activities in progress, the related results and the presence of any significant facts for the Company and its organisational structure.
The Board of Statutory Auditors has also reviewed and expressed, pursuant to the Corporate Governance Code, a favourable opinion on the 2023 Audit Plan, examined by the Board of Directors at its meeting on 15 March 2023, and has acknowledged the structure currently in place at the Company as to its adequacy to carry out the aforementioned 2023 Audit Plan in an orderly and appropriate manner.

The Board of Statutory Auditors also examined the 2023 Compliance Plan, approved by the Board of Directors on 15/3/2023, which is consistent with that of previous years, and the adequacy of the Compliance department.

In the light of the new plans announced by the Company, the Board of Statutory Auditors intends to constantly monitor the adequacy of the Audit and Compliance Departments.

10. REMUNERATION POLICIES

The Board of Statutory Auditors examined the document containing the architecture of the 2023 incentive system (MBO), approved by the Board of Directors on 15 March 2023, issuing, to the extent necessary and with regard to the remuneration of the Chief Executive Officer, a favourable opinion.

In addition, the Board of Statutory Auditors took note of the "*Report on the remuneration policy and the compensation paid*" prepared pursuant to art. 123-ter of the CLF, containing the terms of the remuneration policy to be submitted to the Shareholders' Meeting called for 20 April 2023 and approved by the Board of Directors during the meeting on 15 March 2023. After verifying that the procedure adopted was consistent with Company procedures and the relevant regulations, the Board of Statutory Auditors issued, insofar as necessary, its favourable opinions to the Board of Directors.

11. REPORT ON THE FREQUENCY AND NUMBER OF MEETINGS OF THE BOD, EXECUTIVE COMMITTEE AND BOARD OF STATUTORY AUDITORS

In 2022, the Company's Board of Directors held 22 meetings, at which the Board of Statutory Auditors was always present, also in videoconference.

In 2022, the Control and Risk Committee met 26 times, the Nomination and Remuneration Committee met 25 times, the Related Parties Committee met 22 times and the Sustainability Committee met 5.

The Board of Statutory Auditors attended the meetings of all board committees, also by videoconference, supervising the relevant activities.

During 2022, there were 41 meetings of the Board of Statutory Auditors, 9 of which were held jointly with the Control and Risk Committee. In 2023 and up to the date of approval of the Report 7 meetings have been held.
The majority of the members of the Board of Statutory Auditors attended (by conference call) the Shareholders' Meeting held on 7 April 2022 in the manner permitted by the exceptional regulations set out in Decree Law no. 18 of 17 March 2020.

12. REMARKS ON COMPLIANCE WITH THE PRINCIPLES OF CORRECT ADMINISTRATION

The Board of Statutory Auditors supervised compliance with the principles of correct administration, by attendance at the meetings of the Board of Directors and board committees, meetings with the executive responsible for preparing the corporate accounting documents, the Chief Audit Executive, the Group Compliance Officer, the Head of the IT & Security Compliance Department and by means of interviews with the Company management and the acquisition of information. In particular, the Board acquired information about the TIM anti-bribery management system for the purposes of standard UNI ISO 37001, which reveals substantive compliance with the requirements indicated by the standard.

The Board of Statutory Auditors has supervised on proceedings followed in the deliberations of the Board of Directors and has ascertained that the management choices complied to the applicable rules (substantial lawfulness), adopted in the interests of the Company, compatible with the resources and the company's assets and adequately supported by information, analysis and audit processes, including with recourse, when deemed necessary, to advice from committees and external professionals.

In the course of the year the Board of Statutory Auditors held a meeting with the Chairman of the Board of Directors and the Chief Executive Officer and presented its own assessments of the Company's governance system. In particular, it pointed out that, in relation to the activities carried out and the various feedback received, it believes that the structure-model of Governance adopted by the Company, together with some applications of the same, require further implementation-revision with regard to the Company's operational evolution so as to make it more suitable for controlling compliance with the principles of correct and efficient administration in operational practice.

13. Remarks on the adequacy of the organisational structure

Since its inauguration the Board of Statutory Auditors has monitored the evolution of the TIM Group's organisational structure (also in accordance with golden power regulations, as per the provisions of the Decrees of the President of the Council of Ministers of 16 October 2017 and 2 November 2017), defined in accordance with, on the one hand, the organisational and managerial autonomy of the Parent Company and its subsidiaries and, on the other, the exercise of direction and coordination by the Company with regard to the direct or indirect subsidiaries.

More specifically, the Board of Statutory Auditors has monitored the main changes in the organisational structure of TIM and of the TIM Group that became necessary following changes to the CEO and the executive responsible for corporate accounting documents and CFO, through meetings held with the Head of the Human Resources, Organisation and Real Estate Department, the Control Departments, the Heads of the main corporate structures and by acquiring the organisational communications which had produced an impact on the first and second tiers that report directly to TIM's executive directors or on the macro-organisation of the Group companies.

14. Remarks on the adequacy of the internal control system, in particular on the activity of the internal control managers, and highlighting of any corrective actions undertaken and/or to be undertaken

Since the beginning of its term, the Board of Statutory Auditors has constantly verified and monitored the internal control system.

In its report on the financial statements for the year ended 31 December 2021, it acknowledged the existence of areas that needed to be addressed in order to improve their effectiveness and, in the course of 2022, it analysed the development of the internal control system, noting the final overall assessment of said system by the Chief Audit Executive, the conclusions of which are set out below:

"TIM's Control and Risk Management System (ICRMS) is, overall, designed and articulated consistently with the recommendations of the Corporate Governance Code, as well as aligned with the main reference frameworks (i.e. "Three lines model" and "COSO framework") and, is currently capable of identifying the main areas of corporate risk

The significant areas for improvement identified in 2022 were handled by management by means of:

- *an organic programme of initiatives, led by the Chief Executive Officer, which at present appears to be suitably addressing the main issues identified, proceeding in line with the timeframe agreed with the Board of Directors and the Control Bodies;*
- *prompt remediation plans aimed at reducing the risks highlighted during audit activities, providing for more structured prioritisation processes of the most relevant and cross-cutting issues.*

In the light of the above, the initiatives undertaken by management reduce the areas of improvement previously noted to levels that do not compromise the overall adequacy of the ICRMS, even though it will take time to complete them and to fully appreciate their effectiveness and related resilience.

The programme to strengthen and monitor TIM's ICRMS initiated by management must ensure:

- *the maintenance of an adequate Tone of the Top by top and senior management on ethical values and integrity;*
- *management's commitment to the continuation of the improvement of the control and management oversight processes, guaranteeing the effective, timely and consistent implementation over time of the improvement actions identified with reference to the specific components of the ICRMS and of the action plans emerging from the audit activities;*
- *the continuation of initiatives to raise the awareness of the entire corporate population, also through concrete internal communication initiatives, on the 'control culture' and empowerment, at all organisational levels, on the correct application of internal and external regulations and of the principles of sound management."*

As mentioned, during 2022, the Board of Statutory Auditors continued its investigative, verification and monitoring activities, carried out in the wake of the continuity of the works already begun in 2021 and, as anticipated, in correspondence with the interim financial statements as at 30 June 2022, the Board of Statutory Auditors had prepared a Report addressed to the Board of Directors, in order to represent the results of the analyses conducted in the first half of the year, also in light of the Audit Department's opinion on the adequacy of the Internal Control and Risk Management System (ICRMS).

These analyses had revealed the need to implement a substantial remediation plan, structured into immediate impact actions (6/9 months) and longer-term actions. This opinion was, therefore, worse than the "partial adequacy" opinion of TIM's ICRMS expressed by the same Board of Statutory Auditors in its report on the 2021 financial statements.

In this regard, it should be noted that the adequacy of the Internal Control System is an integral part of the adequacy of the organisational, administrative and accounting structures, as envisaged by articles 2086, 2380-*bis* and 2381 of the Italian Civil Code; structures that must comply with the provisions of art. 3, subsection 3 of the new Corporate Crisis and Insolvency Code, which came into force on 15 July this year.

In particular, according to the aforementioned provision, organisational arrangements must, *inter alia*, make it possible to:

- detect any imbalances of a financial or economic nature, related to the specific characteristics of the company and the business activity carried out by the debtor;
- verify the sustainability of the debts and the prospects of business continuity for at least the next 12 months.

Based on the recommendations of the Board of Statutory Auditors, the Control and Risk Committee, the Board of Directors and the results of the audit activities, management defined a remediation plan.

In particular, management welcomed the invitation of the Board of Statutory Auditors and Audit Department to change and strengthen the focus and communication of the importance of the Controls System, thus demonstrating a change in so-called "tone at the top" and a more proactive approach to identifying actions to strengthen the ICRMS, and specifically:

- has prepared an Action Plan consisting of 71 actions, some of which will be completed in 2022 (substantially on schedule) and further actions to be completed in 2023; the actions envisaged by the Action Plan mainly concern the resolution of a series of organisational weaknesses and vulnerabilities that were highlighted on the basis of the assessments emerging from the Audit Department's ICRMS Report referring to the first half of 2022 on the basis of the control activities carried out by the Audit Department (with particular reference to the period 2020-2022) and the audits of the Board of Statutory Auditors;

- has set up a cross-functional Steering Committee, chaired by the CEO, to define and monitor the implementation of the Action Plan;
- has established cross-functional cost control committees to monitor and streamline specific areas of expenditure (IT, devices, communications), with possible benefits also with regard to the risk of management override of controls;
- has set up, as part of a process aimed at ensuring the identification and definition of initiatives for the evolution of the internal control system for corporate risk management, a Technical Committee for the supervision of "complex contracts", i.e. contracts that due to their characteristics (e.g. presence of guaranteed minimums to the detriment of TIM) present a higher level of risk than the norm. The Technical Committee has defined:
    - the objective criteria according to which a contract can be classified as "complex";
    - a strengthened evaluation and authorisation process involving multiple players and expertise capable of assessing the various risk profiles (collective decision-making process);
    - an update to the policy governing the formalisation process of contracts within the Group by providing for a clear identification and formalisation of the rationale underlying the decision-making process for awarding complex contracts, as well as the related escalation mechanisms, thus strengthening the process of identifying and reconstructing the sources, information elements and controls performed.

In relation to the implementation of the Action Plan, it should be noted that the Audit Department has informed the Board of Statutory Auditors that it has subjected the activities completed during 2022 to specific tests and verified their correct implementation and preliminary effectiveness.

During the second half of 2022, the investigative, verification and monitoring activities of the Board of Statutory Auditors continued in order to verify the effective implementation of the aforementioned remediation plan and to test its effectiveness with the help of the competent departments.

The remediation plans, especially with regard to audit activities concluded in the second half of 2022, generally envisage shorter implementation times than in the past. These actions were in some cases complementary to the actions that management had already proactively initiated in advance of the audit recommendations or within the framework of the action plan defined by the ICRMS Steering Committee.

The implementation of the action plans defined or being defined by management has been constantly monitored by the Audit Department and reported to TIM's Control Bodies as part of the periodic reports. The percentage of corrective actions implemented by management as a result of audit activities conducted in the 2020-2022 period amounted to approximately 90% of the total number of actions envisaged in the remediation plans to be completed in the reporting period, with a limited incidence of the number of corrective actions with deadlines rescheduled in 2022.

It should be noted, however, that to date, the results of the audits carried out by the Audit Department in 2022 have not shown any substantial improvement, at least in terms of audit ratings, as the Board of Statutory Auditors' own analyses have shown. However, the Board of Statutory Auditors, also on the basis of the assessments performed by the Audit Department, believes that these outcomes are mostly attributable to the operational consequences implemented as a result of the Company's management approaches referring to periods prior to the start of the corporate turnaround programme, which involved, *inter alia*, the review of the organisational structure and top management and the implementation of the Action Plan from the second half of 2022.

As a result of the above, the Board of Statutory Auditors concludes that the architecture of TIM's Internal Control and Risk Management System (ICRMS) is, on the whole, consistent with the recommendations of the Corporate Governance Code, aligned with the main reference frameworks and, at present, capable of identifying the main areas of business risk. In light of all of the above, it is the opinion of the Board of Statutory Auditors that the initiatives undertaken by management, while requiring time for their completion and to be able to fully appreciate their effectiveness and the related resilience of their implementation, reduce the areas of weakness, noted by the Board of Statutory Auditors both in its report on the financial statements as at 31 December 2021 and in its considerations expressed as at 30 June 2022, at levels that do not compromise the overall adequacy of the ICRMS. In any event, for the purposes of a future expression of an opinion on the complete adequacy of the Internal Control and Risk Management System, it is absolutely essential that the programme to strengthen and monitor TIM's ICRMS initiated by management be completed in its entirety and within the timeframe envisaged in the Action Plan, as communicated to the Board of Directors, and be able to guarantee *(i)* the maintenance of an adequate Tone at the Top by top and senior management on the importance of compliance with the Control and Risk Management System, and with ethical values and integrity *(ii)* the commitment by management in the continuation of the path of improvement of the control and management oversight processes, *(iii)* the effective, timely and consistent implementation over time of the improvement actions identified with reference to the specific components of the ICRMS and the action plans that emerged from the activities of the Board of Statutory Auditors and the Audit Department and, lastly, *(iv)* the continuation of initiatives to raise the awareness of the entire corporate population, also through concrete internal communication initiatives, on the "control culture" and empowerment, at all organisational levels, on the correct application of internal and external regulations and the principles of sound management.

For the purposes of the opinion on the internal control system expressed above, the Board of Statutory Auditors has also monitored the work carried out by the main players, also with reference to specific aspects, such as special powers (“golden power”). In particular, insofar as coming under its purview, the Board of Statutory Auditors also monitored the improvements made and action taken to mitigate risks, in some cases requesting specific, additional strengthening of the control measures.

It is also noted that the Company has voluntarily adhered to the Cooperative Compliance regime and that the Board spoke with the Head of the Reporting and Fiscal Monitoring Department, in accordance with art. 4, subsection 2 of Italian Legislative Decree no. 128/2015, while the draft report will be finalised and subsequently presented to the Board of Directors only after the meeting between the Company and the Office of Cooperative Compliance to formalise the Notice of Closure of the Proceedings pursuant to point 6.1 of the Provision of the Director of the Italian Revenues Agency Ref. no. 101573 of 26/5/2017. Said meeting will take place after this report has been released.

The Board of Statutory Auditors has exchanged information with the corresponding control bodies of the major Italian subsidiary companies.

The internal control and risk management system also includes the Organisational Model 231, designed to prevent the commission of offences that could result in liability for the Company, pursuant to Legislative Decree No. 231/2001. The Organisational Model 231 has been adopted by domestic subsidiaries of the Group as well as by TIM.

The Board of Statutory Auditors acquired information from the Supervisory Body, which comprises a member of the Board, at specific meetings as well as from an examination of the six-monthly reports prepared by the latter, which indicate an organisational structure that could be improved in certain areas such as procurement.

The latest version of the Organisational Model 231 and the Company's Code of Ethics and Conduct was approved by the Board of Directors on 15 March 2023, also incorporating new predicate offences.

With reference to the GDPR system, the Board of Statutory Auditors notes that the DPO's annual report – incorporated into the ICRMS Report and discussed at the meeting of the Control and Risk Committee on 14 March 2023 – indicates that the specific organisational model was substantially maintained and effective.

With reference to the news that appeared during 2022 and early 2023 concerning hacker attacks on TIM systems, the Board of Statutory Auditors notes and acknowledges that from the feedback received from the competent departments, said news is unfounded and that, on the contrary, the network malfunctioning events reported by the media were due to technical factors. In particular, the most serious of these was caused by the actions of third parties beyond TIM's control.

In 2022, the Company continued the training programme for its departments on the protection of personal data and the general principles of the GDPR such as data subject rights, data transfer, data breach, governance and individual employee accountability.

The TIM Group has adopted an Enterprise Risk Management Model (ERM) which enables risks to be identified and managed in a homogenous way within the Group companies, highlighting potential synergies between the players involved in the assessment of the internal control and risk management system. The process is managed by the Risk Management Steering Committee, which provides governance of the Group's risk management, aimed at containing the level of exposure within acceptable limits and guaranteeing the operational continuity of the business by monitoring the effectiveness of the countermeasures adopted.

The Board of Statutory Auditors has acknowledged that, at its meeting on 2 March 2022, the Board of Directors defined the risk that was acceptable for the Group (Risk Appetite) and the acceptable levels of deviation (Risk Tolerance) under the scope of the new Industrial Plan. The Control and Risk Committee subsequently acquired the reports of the ERM Department, periodically monitoring the development of the main risks and the Group's risk profile (meetings of 2/8/2022 and 13/2/2023) and reporting to the Board of Directors.

At its meeting on 14 February 2023, the Board of Directors examined the risk analysis of the New Plan 2023-2025, formulated by the ERM Department from a continuity perspective (i.e. without assessing the effects of a possible delayering). This analysis shows a significant reduction in the risk profile compared to the plan approved in 2022, with upward scenarios more likely than downward ones.

In 2022 the Compliance organisational model was subject to changes aimed at simplifying the information flows towards the Control Bodies; in this perspective the IT & Security Compliance Policy & Design and IT & Security Compliance Assurance departments were merged within the Compliance Department.

Also in 2022, the Board of Statutory Auditors took note of the activities carried out by Compliance, which focused on the following areas: Definition of rules, processes and controls, Communication and training, Monitoring.

These compliance audits, as indicated in the ICRMS report, led to the conclusion that with reference to the specific operating contexts analysed and the initiatives undertaken by the Compliance Department, no elements emerged in 2022 that would lead to non-compliance risk profiles exceeding levels that would affect the adequacy of the internal control system.

Nonetheless, areas for improvement were identified in relation to the Anti-Corruption Management System, Financial Reporting and Gap Analysis 231 both in TIM and its subsidiaries.

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In compliance with Italian Legislative Decree no. 254/2016 (hereinafter the “Decree”), the Company has been required to disclose non-financial information since the 2018 financial year.

The TIM Group NFS contains a description of topics regarding: the corporate management model, corporate governance, stakeholder engagement, the materiality matrix and risk management, the results achieved by the Company on topics relevant to the environment, the value chain and human rights.

On 30 March 2023, the Auditor issued a report certifying that the information provided in the NFS complies with the requirements of the Decree and the reporting standards used, which reads as follows: “*based on the work carried out, no elements have come to our attention that would lead us to believe that the TIM Group's NFS for the financial year ending 31 December 2022 has not been prepared, in all significant aspects, in accordance with the requirements of Articles 3 and 4 of the Decree and the GRI Standards.*
Our conclusions on TIM Group's NFS do not extend to the information contained in the "European Taxonomy" *paragraph thereof, which is required by Article 8 of European Regulation 2020/852.”*

The Board of Statutory Auditors has obtained regular updates on the conduct of activities prior to preparing the NFS and has monitored observance of the provisions pursuant to the above Decree under the scope of the duties assigned it by the system and, in particular, on the adequacy of the procedures, processes and departments overseeing the production, reporting, measuring and representation of the results and of information of this nature.

As part of its duty to supervise compliance with the law and the Bylaws, the Board of Statutory Auditors notes that the Company, in its NFS, has complied with and applied the provisions of Regulation (EU) 2020/852 of 18 June 2020 ("Taxonomy") on the establishment of a framework to encourage sustainable investments.

Said Regulation requires that, as of 1 January 2022 (NFS referring to the financial year 2021), information be provided only on climate change mitigation and adaptation.

15. Remarks on the adequacy of the administrative and accounting system and its ability to fairly represent operations

For the purpose of supervising financial reporting processes, the Board of Statutory Auditors (in addition to the above-mentioned in-depth analyses and discussions with the Auditor both with regard to the adequacy of the internal control system and the procedures underlying the preparation of accounting data, for which it did not receive any reports of critical aspects) has periodically met the Executive responsible for measuring accounting and corporate data and drafting the related accounting documents, together with the accounting and risk department. To this end, the Board of Statutory Auditors collected documents and information, including through interviews with the various company control, compliance, legal and commercial departments, as well as with the Supervisory Board.

In order to guarantee compliance with Italian laws, TIM operates a structured and documented model of detection and monitoring of risks connected to financial reporting, which refers to the 2013 CoSo framework. This model, managed with the help of a specific piece of software, regards the internal controls associated with the risks identified on the financial reporting and the consequent assessment activities, with precise attributions of responsibility, in compliance with the principle of accountability.

The accounting structure and the related procedures have been defined and organised under the responsibility of the Executive responsible together with the pro tempore Chief Executive Officer, who have certified their adequacy and effectiveness.
The Board also acknowledged the activities carried out pursuant to Law no. 262/05 concerning the Company's 2022 individual and consolidated financial statements, which were submitted to the Board of Directors on 15 March 2023. Consequently, with regard to the administrative-accounting system of the subsidiaries, pursuant to art. 15, subsection 1, letter c, ii) of the Market Regulations (Conditions for the listing of shares of controlling companies and of companies registered in and regulated by the laws of States that are not members of the European Union), the Board of Statutory Auditors has not ascertained facts and circumstances indicating that it is not adequate to ensure that the data on equity and economic data required for the preparation of the consolidated financial statements regularly reaches the management and auditor of the controlling company.
In the course of periodic meetings, the Executive responsible did not point out any shortcomings in the operational and control processes that could affect the judgement of the correctness of company information.

The Board of Statutory Auditors also monitored the financial reporting process.

With reference to the Company's annual financial statements and consolidated accounts for 2022, the Board of Statutory Auditors acknowledged the statements issued by the Chief Executive Officer and the Executive responsible for preparing the corporate accounting documents of TIM S.p.A. concerning the adequacy in relation to the characteristics of the company and the actual application during 2022 of the administrative and accounting procedures for the preparation of the financial statements and the consolidated financial statements.

The Board of Statutory Auditors notes that, with reference to the goodwill impairment test, this is applied in a consolidated and structured manner, coordinated by the Chief Financial Officer, with the intervention of independent external experts of acknowledged professional expertise and with various departments intended to provide confirmation that the findings were based on reasonable assumptions. The impairment procedure is revised once a year and the process for impairment testing is analysed and discussed in special meetings involving the Control and Risk Committee and Board of Statutory Auditors, that precede the Board of Directors meetings to approve the financial reports to which the impairment test must be applied.

The Board of Statutory Auditors has checked that the impairment test procedure applied to the 2022 financial statements was conducted consistently with the procedure approved by the Board of Directors on 21 January 2022 and with the applicable IFRS standards, and structured with various reference documents aimed at verifying the final results.
As a result of the impairment testing, there was no need to write down the goodwill of the Domestic CGU (an impairment of 4,120 million euros had been recognised as at 31/12/2021) nor of the Brazil CGU.
For further details, reference is made to the explanations given in the "*Goodwill*" Note to the consolidated financial statements as of 31 December 2022 of the TIM Group.

Following the continuation of the war between Ukraine and Russia, the Board of Statutory Auditors carried out some in-depth discussions with both the Company's departments and the Auditor during financial year 2022 and early 2023, with reference to the draft financial statements for 2022, on the possible effects on interest rates, exchange rates, energy costs, and the economy in general.

16. Remarks on the adequacy of the instructions imparted by the Company to its subsidiaries pursuant to article 114, subsection 2 of Legislative Decree no. 58/1998

The Board of Statutory Auditors, pursuant to art. 2403 of the Italian Civil Code and art. 149 of the CLF:

- believes that the instructions imparted by TIM to its subsidiaries, pursuant to art. 114, subsection 2 of the CLF, are adequate to comply with the disclosure obligations established by the law. In this respect it should be noted that the Company regulates the flow of information it receives from its subsidiary companies on transactions of particular impact, with specific procedures;
- exchanged periodic information with the Boards of Statutory Auditors of the direct subsidiaries and verified - pursuant to art. 15 of the Consob Market Regulations adopted by resolution no. 20249 of 28 December 2018 (the "Consob Market Regulations") - that the corporate organisation and procedures adopted allow TIM S.p.A. to ascertain that its subsidiaries of significant importance incorporated and governed by the law of non-EU countries have an administrative and accounting system suitable for regularly providing the Company's management and auditor with data on equity and the financial data necessary for the preparation of the consolidated financial statements. As at 31 December 2022, the subsidiaries of significant importance incorporated and governed by the law of non-EU countries pursuant to article 15 of Consob's Market Regulations are: TIM S.A. (telecommunications services - Brazil).

17. RELATIONS WITH SUPERVISORY AUTHORITIES

During 2022, the Board of Statutory Auditors sent a communication to Consob pursuant to art. 149, subsection 3 of the CLF concerning certain aspects of the Internal Control and Risk Management System.

In addition, the Board of Statutory Auditors, in 2022 and early 2023, held several meetings with Consob, at the Authority's request.

The Board of Statutory Auditors reports that it received a communication from Consob pursuant to art. 115 of the CLF, inviting the Board of Statutory Auditors to provide additional information on the checks performed on the NFS.

It should be noted, moreover, that the Board of Statutory Auditors was promptly informed by the Company with regard to the requests for information, data and documents sent by Consob to the latter, pursuant to art. 115 of the CLF, during the year 2022 and that the requests received were promptly answered within the terms set out and/or agreed.

18. REMARKS ABOUT ANY RELEVANT ASPECTS THAT EMERGED DURING THE MEETINGS HELD WITH THE AUDITORS PURSUANT TO ARTICLE 150, SUBSECTION 2 OF LEGISLATIVE DECREE NO. 58/1998

In 2022, the Board of Statutory Auditors held regular meetings with the external auditor (EY) during which data and significant information was exchanged for the performance of their respective duties.

The Board of Statutory Auditors has analysed the work carried out by the independent auditor, with specific reference to the approach and auditing strategy for the financial 2022 and the definition of the audit plan, the scope of work, the materiality and the significant risks for 2022. The key audit matters and the related corporate risks were discussed, and the activities planned by the independent auditor were deemed adequate.

The Board of Statutory Auditors has ascertained, from information obtained from Independent Auditor EY and from the management of the Company, that the IAS/IFRS principles, and the other legal and regulatory provisions that apply to the preparation and presentation of the separate financial statements, the consolidated financial statements and the accompanying report on operations, are complied with.

The exchange of information with the independent auditors covered all the main business processes and their recognition and representation in the accounts. From this perspective, particular attention was paid to the critical issues that emerged from the examination of certain complex contracts during the Board of Statutory Auditors' analyses carried out in the year.

In this context, the Independent Auditor - with whom periodic meetings were held also regarding the provisions of art. 150 of the CLF in order to exchange mutual information - did not report to the Board of Statutory Auditors any reprehensible act or event or any irregularity requiring the formulation of specific notifications pursuant to art. 155 of the CLF.

In compliance with that prescribed by art. 19 of Italian Legislative Decree no. 39/2010, the Board of Statutory Auditors has verified and monitored the independence of the external auditor, particularly as regards the provision of services supplied to the Company, other than auditing.

Taking into account the EY declaration of independence (contained in the Additional Report for the Committee for Internal Control and Audit) and the additional appointments conferred by TIM and the Group companies on EY and the companies belonging to its network, the Board of Statutory Auditors believes that conditions are met for attesting to the independence of the independent audit firm EY.

19. Indication of the adherence or otherwise of the company to the Corporate Governance Code of the Committee for the Corporate Governance of listed companies

The Company's Board of Statutory Auditors performs its functions within a governance framework that envisages information flows within the company, the architecture of which is constantly evolving in relation to TIM's organisational changes and which are therefore currently subject to observation, assessment and monitoring by the Audit Department. The Board of Statutory Auditors has taken note of the information provided in the Report on Corporate Governance and Share Ownership approved by the Board of Directors at its meeting on 15 March 2023.

The Company adheres to the new Corporate Governance Code and adhered to the previous Corporate Governance Code.

The Board of Statutory Auditors took part in the meetings of the Board of Directors and the Board committees and monitored the procedures for the practical implementation of TIM's corporate governance rules, contained in the Corporate Governance Code. In this perspective, the Board of Statutory Auditors has also taken into account the recommendations of the Corporate Governance Code, intervening where appropriate. In particular, the Board of Statutory Auditors, during the meeting held in 2022 with the Chairman of the Board of Directors and the Chief Executive Officer, pointed out to them the need to ensure the following for members of the company bodies: a) pre-meeting information sufficiently in advance; b) self-explanatory material on the topics to be examined and discussed, organised so as to be functional to the objectives; c) board meetings organised in a manner functional to the relevance of the single items to be examined; d) direct individual contributions in an orderly manner; e) development of a model that facilitates Directors' contributions and discussions aimed at challenging the proposals of the executive directors.

All these aspects show margins for improvement.

At the same time, the Board of Statutory Auditors acknowledges that TIM has adopted the criteria of the Corporate Governance Code for the classification of Directors as independent. Based on the elements made available by the interested parties pursuant to the Code and as per Consob Issuers' Regulations, or in any case available to the Company, the annual assessment of the requirements was carried out, most recently on 14 February 2023.

It should be noted that Directors De Meo and Cadoret resigned during financial year 2022. Director De Puyfontaine also resigned on 16 January 2023.

Following an appropriate process by the Nomination and Remuneration Committee, the Board of Directors, having consulted with the Board of Statutory Auditors, co-opted Directors Giulio Gallazzi and Massimo Sarmi, who will remain in office until the Shareholders' Meeting of 20 April 2023. Director Gallazzi's independence requirements were verified, while Director Sarmi was found to be non-independent. It should be noted that the Board of Directors, in light of the short time span between the date of the resignations and the Shareholders' Meeting, deemed it unnecessary to co-opt a new director to replace the resigning De Puyfontaine. Furthermore, on 15/3/2023, the Board of Directors also resolved not to submit a nomination for the related replacement to the Shareholders' Meeting, inviting shareholders to submit proposals within 15 days before said Shareholders' Meeting.

Of the current 14 Directors in office, 10 meet the independence requirements: Directors Gallazzi, Bonomo, Moretti, Romagnoli, Falcone, Sapienza, Ferro Luzzi, Camagni, Carli and Boccardelli.

On 15 February 2023, the Board of Statutory Auditors checked that the criteria and ascertainment procedures adopted by the Board of Directors to assess the independence of its members were correctly applied, deeming that the procedure had been implemented correctly.

The point of reference and coordination for the issues and contributions of the independent Directors and the non-executive Directors in general is the Lead Independent Director, a role held by Paola Sapienza.

The Lead Independent Director is granted the right to use corporate structures to perform the tasks entrusted to him and to convene special meetings of the Independent Directors to discuss issues regarding the functioning of the Board of Directors or the management of the business.

On 13 March 2023, the Board of Statutory Auditors also checked that the requirements of integrity, professionalism and independence were met by each Auditor, in accordance with art. 148, subsection 3 of the CLF and the Corporate Governance Code.
The main offices held by the members of the Board of Statutory Auditors are also indicated in the "Report on Corporate Governance and Share Ownership" for 2022, drafted by the Company pursuant to art. 123-bis of the CLF, made available to the public within the terms of the law on the Group's website and using the other methods provided for by the regulations in force.
The Board of Statutory Auditors acknowledges that all its members comply with the regulatory provisions issued by Consob concerning the limit on the accumulation of offices.
In compliance with the provisions set forth in the "Rules of Conduct of the Board of Statutory Auditors of Listed Companies" of the Italian Board of Chartered Accountants and Accounting Consultants, which state that the Board of Statutory Auditors is required to carry out, after appointment and subsequently on an annual basis, an assessment of its work in relation to the concerted planning of its activities, the suitability of its members, the adequate composition of the body with reference to the requirements of

professionalism, expertise, integrity and independence, as well as the adequacy of the availability of time and resources in relation to the complexity of the task (the “Self-Assessment”), it should be noted that the Company’s Board of Statutory Auditors carried out the Self-Assessment for 2022, the results of which are the subject of a specific presentation in the Company’s “Report on Corporate Governance and Share Ownership 2022” pursuant to art. 123-*bis* of the CLF, made available to the public within the terms of law on TIM’s website and using the other methods envisaged by current regulations.

See TIM’s 2022 Report on the corporate governance and share ownership for further information on the Corporate Governance of the Company, which the Board of Statutory Auditors evaluates positively.

20. CONCLUSIVE ASSESSMENTS OF THE SUPERVISORY ACTIVITY CARRIED OUT AND OF ANY OMISSIONS, MISCONDUCT OR IRREGULARITIES NOTED DURING THE COURSE OF THIS ACTIVITY

The supervisory and control activities carried out by the Board of Statutory Auditors, with the exception of the matters described in the preceding sections of this report, did not bring to light any reprehensible facts, omissions or irregularities, nor did the Auditor or the Supervisory Body receive any indications of reprehensible facts or irregularities to be mentioned in the Report to the Shareholders’ Meeting.

21. FURTHER ACTIVITIES OF THE BOARD OF STATUTORY AUDITORS

In carrying out its duties, the Board of Statutory Auditors has monitored, as required by Article 149 of the CLF:

- compliance with the law and the Articles of association. In this regard, we specify that, to the extent of our remit, we have also monitored: i) for the purposes of the preparation of the financial statements for the year ended as at 31 December 2022, compliance with the provisions of the ESEF Regulation, and ii) for the purposes of the preparation of the NFS, contained in the Group's Sustainability Report for 2022, compliance with Regulation (EU) no. 2020/852 of 18 June 2020 and its Delegated Regulations ("Taxonomy Regulation"), also taking into account the related FAQs published by the European Commission in December 2022;
- compliance with the principles of correct administration;
- the procedures for the practical implementation of the corporate governance rules laid down in the codes of conduct with which the Company, by means of public disclosures, has declared that it complies;
- the adequacy of the organisational, administrative and accounting structures and the internal control and risk management system also with respect to the purposes of the Code on Corporate Crisis and Insolvency set forth in Legislative Decree no. 14/2019, which came into force on 15 July 2022 following the issue of Legislative Decree no. 83/2022, implementing Directive (EU) 2019/1023 ("CCII") and, in particular, the adequacy of the organisational structures also with respect to the timely detection of crisis as per art. 3 of the CCII.

It should also be noted that the Directors' Report on operations includes a paragraph describing the main features of the existing internal control and risk management system in relation to the financial reporting process, including consolidated reporting.

The Board of Statutory Auditors takes note that:

- the Directors' Report on operations complies with current legislation, is consistent with the resolutions passed by the Board of Directors and the results of the financial statements, and provides adequate information on the Company's operations during the year and on intra-group transactions. The section containing information on Related Party transactions has been included, in compliance with IFRS standards, in the notes to the financial statements;
- the Notes comply with current legislation, indicating the criteria applied in valuing items in the financial statements and making adjustments, and the Company's separate and consolidated financial statements have been prepared in accordance with the structure and format required by current legislation. In application of Consob regulations, the financial statements expressly indicate the effects of related party transactions on equity and the financial position, the income statement and cash flows;
- the Boards of Directors of the main subsidiaries include directors and/or managers of the Parent Company who guarantee coordinated management and an adequate flow of information, also supported by suitable accounting information.

Furthermore, it should be noted that the Board of Statutory Auditors:

- obtained from the Directors, at least on a quarterly basis, information on the activities carried out and on the most significant strategic, economic, financial and equity operations undertaken by the Company. The Board of Statutory Auditors - without prejudice to the content of paragraph 2 concerning some company transactions approved and/or carried out in 2022 - based on the available information, can reasonably assure that the additional transactions approved and carried out in the period under review comply with the law and the Bylaws and are not clearly imprudent, or risky, or in conflict of interest, or in contrast with the resolutions passed by the Shareholders' Meeting, or such as to compromise the integrity of the corporate assets;

- received from the Supervisory Body, which the Standing Auditor Anna Doro is a member of, information on the results of its control activities, from which it emerges that no anomalies or reprehensible events violating the Organisational Model 231/2001 were found;
- held periodic meetings with representatives of the Independent Auditors in order to exchange data and information relevant to the performance of their duties, as required by Article 150, subsection 3 of the CLF. In this regard, it should be noted that no significant data or information emerged that should be reported herein;
- obtained information from the corresponding bodies of the main subsidiaries with regard to management and control systems and the general performance of company activities (pursuant to subsections 1 and 2 of art. 151 of the CLF).

22. Report of any proposals to be brought to the attention of the Shareholders' Meeting pursuant to article 153, subsection 2 of Legislative Decree no. 58/98

Having acknowledged the Company's 2022 financial statements, having taken into account all of the above, having considered the content of the reports drawn up by the Auditor, having acknowledged the certifications issued jointly by the Chief Executive Officer and Executive responsible for preparing the corporate accounting documents, the Board of Statutory Auditors, within its remit, finds no reasons to object to the proposal to approve the Company's separate financial statements as at 31 December 2022 and the proposals formulated by the Board of Directors, as set out in the Directors' Report on operations and available at the Internet address: www.gruppotim.it.

The Board of Statutory Auditors has noted that the Shareholders' Meeting was convened, in a manner consistent with the exceptional rules contained in Decree Law no. 18 of 17 March 2020, pursuant to the extension set forth in art. 3, subsection 10-*undecies* of Law no. 14 of 24 February 2023, converting Decree Law no. 198 of 29 December 2022 (so-called "Milleproroghe" Decree).

Milan, 30 March 2023

For the Board of Statutory Auditors

The Chairman

Francesco Fallacara

MOTIONS FOR RESOLUTIONS

Shareholders' Meeting of TIM S.p.A.

April, 20 2023: Shareholders' Meeting of TIM S.p.A. – single call

Medium

- Financial statements as at 31 December 2022 - Coverage of the operating loss
- Report on the remuneration policy and compensation paid - Approval of the first section (remuneration policy) - Non-binding vote on the second section (2022 final balance)
- Resolutions arising from the resignation of three Directors - Substitution of Luca de Meo - Substitution of Franck Cadoret -Substitution of Arnaud Roy de Puyfontaine
- Short-term incentive plan (MBO) 2023 - approval of the financial-instrument-based remuneration plan, related and consequent resolutions
- Long-Term Incentive Plan 2023-2025 - approval of the financial-instrument-based remuneration plan, related and consequent resolutions
- Request for authorisation for the purchase and disposal of treasury shares to service the Short-Term Incentive Plan (MBO) 2023 and Long-Term Incentive Plan 2023-2025, inherent and consequent resolutions

Financial statements as at 31 December 2022 - Coverage of the operating loss

Dear Shareholders,

The 2022 draft financial statements submitted for the approval of the Shareholders' Meeting show a net loss of 3,076,991,836.16 euros. The reasons for this result are described in the report on operations, to which reference should be made.

It is proposed that upon approval of the financial statements, the loss for the year be covered through full utilisation of the Merger Surplus Reserve (of 776,679,887.65 euros), Miscellaneous Reserves (of 742,611,272.49 euros) and withdrawal from Paid-in capital of 1,557,700,676.02 euros as set forth below.

In view of the above, the Board of Directors submits for your approval the following proposal

The Shareholders' Meeting of TIM S.p.A.,

- having examined the annual financial report of TIM S.p.A.;
- having taken note of the reports by the Board of Statutory Auditors and the independent auditors EY S.p.A.;

resolved

- to approve the 2022 financial statements of TIM S.p.A..
- to cover the loss for the year of TIM S.p.A. (equal to 3,076,991,836.16 euros)
  - for 776,679,887.65 euros through use of the Merger Surplus Reserve;
  - for 742,611,272.49 euros through use of the Miscellaneous Reserves;
  - for 1,557,700,676.02 euros through use of the Paid-in capital.

Report on the remuneration policy and compensation paid - Approval of the first section (remuneration policy) - Non-binding vote on the second section (2022 final balance)

Dear Shareholders,

the report on the remuneration policy for financial year 2023 and the remuneration paid in financial year 2022 was prepared on the basis of the applicable regulatory framework.

This document is divided into two sections:

- the first illustrates the Company's policy on the remuneration of Directors, Statutory Auditors and Key Managers with Strategic Responsibilities, and is subject to a binding resolution of the Shareholders' Meeting, with the possibility of derogation in the event of exceptional circumstances, within the limits and under the procedural conditions specified in the same document;

- the second presents the items that make up the remuneration of the persons mentioned above, with an analytical illustration of the 2022 remuneration; indicates how the Company considered the Shareholders' vote of 7 April 2022 and is subject to a non-binding resolution of the Shareholders' Meeting in favour or against.

All that said, you are called upon to express your views separately on the first and second sections of the report, as described above. For this purpose, the Board of Directors submits the following proposals for your approval

Proposal 1: approval of the first section of the report on the remuneration policy and compensation paid

The Shareholders' Meeting of TIM S.p.A., having regard to applicable regulations,

resolved

the approval of the first section of the report on the remuneration policy and compensation paid by the Company.

Proposal 2: non-binding vote on the second section of the report on the remuneration policy and compensation paid

The Shareholders' Meeting of TIM S.p.A., having regard to applicable regulations,

resolved

in favour of the second section of the report on the remuneration policy and compensation paid by the Company.

Resolutions arising from the resignation of three Directors - Substitution of Luca de Meo - Substitution of Franck Cadoret - Substitution of Arnaud Roy de Puyfontaine

Dear Shareholders,

on 29 September 2022, 16 November 2022 and 16 January 2023, the directors Luca de Meo, Franck Cadoret and Arnaud Roy de Puyfontaine respectively resigned from their positions in the Company.

At the meetings of 30 November and 15 December 2022, the Board of Directors - replacing the first two directors - co-opted Giulio Gallazzi and Massimo Sarmi, who will remain in office as directors until the next Shareholders' Meeting.

On 14 February 2023, the Board of Directors resolved not to co-opt a Director to replace Arnaud Roy de Puyfontaine, given the approaching Shareholders' Meeting which will be called to decide the appointment.

Since the slate voting mechanism does not apply to these cases, as the Bylaws only require it for the renewal of the entire board, we propose that you appoint the aforementioned Giulio Gallazzi, Massimo Sarmi (whose curricula vitae are available on the Company's website) as Directors of TIM for the remaining duration of the term of office of the serving Board of Directors and therefore until approval of the financial statements for the year ending on 31 December 2023.

With regard to the appointment of the third Director, since the Board of Directors has decided not to make any proposals in this regard, the Shareholders are invited to propose their own candidates.

Considering the particular manner in which the Shareholders' Meeting will be held and the circumstance that participation in the Shareholders' Meeting will be allowed exclusively through the Appointed Representative and that no proposals may be submitted during the proceedings (as clarified by Consob), Shareholders are invited to consider submitting the names of the candidates to be voted at the Shareholders' Meeting by the deadline set for submitting individual candidatures, i.e. by 5 April 2023, accompanying the proposal: (i) with a declaration in which the candidate accepts the nomination and certifies, at their responsibility, that there are no causes of ineligibility or incompatibility and that the requisites required by law and the Bylaws for the office are present; (ii) exhaustive information on the personal and professional characteristics of the candidate, with an indication of the administration and control positions held in other companies; and (iii) information on the identity of the Shareholders submitting the proposal with an indication of the total equity held, to be attested within the terms and according to the procedures set forth in applicable laws and regulations.

The proposals received - after they have been verified as complete and compliant with the applicable regulations - will be announced by 6 April 2023 (with accompanying documentation) through publication on the Company's website at www.gruppotim.it/assemblea.

In light of the above, the Board of Directors submits the following proposals for your approval.

Proposal 1: Appointment of a Director to replace Luca de Meo

The Shareholders' Meeting of TIM S.p.A.,

- given that Luca de Meo's has ceased to hold office as a Director (and the removal from office of Giulio Gallazzi, who had already been co-opted by the Board of Directors to replace Luca de Meo);

- considering that the term of office of the current Board of Directors will expire with approval of the financial statements as at 31 December 2023 (as per the Shareholders' Meeting resolution of 31 March 2021),

resolved

to appoint Giulio Gallazzi as Director of the Company expiring together with the Directors in office and therefore until the approval of the financial statements at 31 December 2023.

Proposal 2: Appointment of a Director to replace Frank Cadoret

The Shareholders' Meeting of TIM S.p.A.,

- given that Frank Cadoret's has ceased to hold office as a Director (and the removal from office of Massimo Sarmi, who had already been co-opted by the Board of Directors to replace Frank Cadoret);
- considering that the term of office of the current Board of Directors will expire with approval of the financial statements as at 31 December 2023 (as per the Shareholders' Meeting resolution of 31 March 2021),

resolved

to appoint Massimo Sarmi as Director of the Company expiring together with the Directors in office and therefore until the approval of the financial statements at 31 December 2023.

Proposal 3: Appointment of a Director to replace Arnaud Roy de Puyfontaine

The Shareholders' Meeting of TIM S.p.A.,

- given that Arnaud Roy de Puyfontaine has ceased to hold office as Director and the decision of the Board of Directors not to co-opt a Director to replace him;
- considering that the term of office of the current Board of Directors will expire with approval of the financial statements as at 31 December 2023 (as per the Shareholders' Meeting resolution of 31 March 2021),

resolved

to invite the Shareholders to formulate proposals for candidates as Director of the Company expiring together with the Directors in office and therefore until the approval of the financial statements as at 31 December 2023.

Short-term incentive plan (MBO) 2023 - approval of the financial-instrument-based remuneration plan, related and consequent resolutions

Dear Shareholders,

pursuant to art. 114-bis of Legislative Decree 58 of 24 February 1998 (the "CLF"), the Board of Directors submits for your approval a new, short-term incentive instrument based on ordinary Telecom Italia shares (the "Shares"), introduced into the company remuneration policy as illustrated in the first section of the corresponding report, which is also submitted to the Shareholders' Meeting for review.

For further details, please refer to the information document prepared in accordance with the Issuer Regulations (adopted by Consob in resolution 11971 of 14 May 1999 and as subsequently amended). It should be noted that the Short-Term Incentive Plan (MBO) 2023 (hereinafter the 'Plan') introduces, as part of the broader short-term incentive system applied to the Chief Executive Officer, General Manager and management (MBO), a partial deferral and co-investment mechanism applicable to a selected portion of management (up to approximately 50 managers), in line with the recommendations of the Corporate Governance Code and the most advanced practices.

In particular, in order to promote greater alignment between the interests of management and the goal of creating value for shareholders, the Plan provides for the payment of 25% of the MBO bonus in Shares to a selected portion of management (i.e. The Chief Executive Officer and General Manager, the top managers and holders of key positions); the shares thus allocated will be subject to a lock-up of 12 months from assignment (without prejudice to the right to "sell to cover" payment of the taxes due). It is also envisaged that, at the end of the lock-up period, a Bonus Share will be allocated free of charge in the ratio of 1 for every 4 Shares allocated and depending on the achievement of specific performance conditions.

The incentive will be acknowledged subject to the achievement of economic and financial targets (one of which is a 'Gate' at 78% of the incentive, for the Chief Executive Officer and top management) and ESG targets. The incentive may also be suspended and/or cancelled for all management (with the exception of the Chief Executive Officer) in the presence of significant shortcomings - not remedied within the deadlines indicated by the Control Departments - resulting from audits, the system for internal control over financial reporting pursuant to Law 262/200 and the organisational and management model pursuant to Legislative Decree 231/2001.

To service the initiative referred to in this report and the "Long-Term Incentive Plan 2023-2025", authorisation is requested to purchase a maximum of 135,000,000 Shares, pursuant to Articles 2357 and 2357-ter of the Italian Civil Code and Article 132 of Legislative Decree 58 of 24 February 1998.

The proposal is also made to give the Board of Directors the power, where deemed necessary or appropriate, to fund the Plan, in whole or in part, by the use of treasury shares in the Company's portfolio as at the date of this resolution. The Board of Directors therefore also requests the Shareholders' Meeting for authorisation to use the aforementioned treasury shares free of charge, for the benefit of the beneficiaries of the Plan for as long as necessary.

The Board of Directors invites you to refer to the information document for an analytical explanation of the initiative (available on the Company's website at www.gruppotim.it/agm), and submits for your approval the following proposal.

The Shareholders' Meeting of TIM S.p.A.,

- having examined the Board of Directors' explanatory report and the disclosure document on the 2023 Short-Term Incentive Plan (MBO),

resolved

- to approve the 2023 Short-term incentive Plan (MBO) in the general terms described above and detailed in the information document published in accordance with the applicable regulations;
- to grant the Board of Directors, with the power to sub-delegate, all the powers necessary or appropriate (i) to define any Plan regulations and any other documentation accompanying the same, (ii) to implement the Plan, proceeding with any activities needed to comply with the regulations in force at the time, (iii) to make any amendments and/or additions needed to the Plan, its regulations and any other documentation, with authorisation to carry out acts of disposal of the ordinary treasury shares held in the Company portfolio at the time, to the benefit of the beneficiaries of the short-term incentive Plan (MBO) 2023 for as long as necessary.

Long-Term Incentive Plan 2023-2025 - approval of the financial-instrument-based remuneration plan, related and consequent resolutions

Dear Shareholders,

you have been called to discuss and resolve on the proposed long term share-based incentive plan entitled the "Long-Term Incentive Plan 2023-2025" (hereinafter the "LTI Plan").

As described in the information document (available on the Company's website at www.gruppotim.it/agm to which reference should be made for further details), the LTI Plan consists of the free allocation of shares to the Chief Executive Officer, Top management and a selected number of key managers for achieving the objectives of the 2023-2025 Strategic Plan (the "Beneficiaries"), which is proposed to promote both the effective implementation within the three-year period of the delayering plan, overcoming vertical integration and the commitment to reducing leverage and maintaining a sustainable capital structure, as well as focusing on the challenges faced by the individual Business Units already identified at an organisational level and the achievement of their specific objectives, improving organic performance in each of the activities in the portfolio.

The Beneficiaries of the LTI Plan - the total number of which is up to about 140 managers - are divided into four pay-opportunity brackets.

The LTI Plan consists in the offer of Performance Shares (i.e. free allocation rights to Telecom Italia S.p.A. ordinary shares), with a three-year vesting, to the Beneficiaries, in a number varying in relation to the achievement of predetermined performance conditions, differentiated according to the office held and the scope of activities, consisting of equity, industrial and ESG targets (indicated in detail in the Information Document).

The shares allocated will have normal dividend entitlement upon vesting and the same characteristics as the ordinary shares outstanding at the time, and will be subject,

- a 2-year lock-up of 50% of the shares remaining after the exercise of the "sell to cover" option (sale upon maturity of a sufficient number of shares to pay the taxes due)
- a claw-back, whereby the Company reserves the right, in the three years following the allocation, to ask the beneficiary to return, in whole or in part, the shares assigned (minus those sold to meet the tax liabilities arising from the LTI Plan) or their equivalent value at the date of allocation, if they were assigned on the basis of data that later proved to be incorrect, resulting in a restatement of the financial statements, or in cases of fraud or other wilful misconduct or gross negligence.

To service the initiative referred to in this report and the "Short-Term Incentive Plan (MBO) 2023", authorisation is requested to purchase a maximum of 135,000,000 Shares, pursuant to Articles 2357 and 2357-ter of the Italian Civil Code and Article 132 of Legislative Decree 58 of 24 February 1998.

It is also proposed to give the Board of Directors the power, where deemed necessary or appropriate, to fund the LTI Plan, in whole or in part, by using treasury shares in the Company's portfolio as at the date of this resolution. The Board of Directors therefore also requests the Shareholders' Meeting for authorisation to use the aforementioned treasury shares free of charge, to the benefit of the beneficiaries of the LTI Plan for as long as necessary.

As mentioned, the Board of Directors invites you to refer to the information document for an analytical explanation of the initiative, and submits for your approval the following proposal

The Shareholders' Meeting of TIM S.p.A.,

- having examined the explanatory report of the Board of Directors and the information document on the Long-Term Incentive Plan 2023-2025,

resolved

- to approve the incentive plan entitled 2023-2025 Long-Term Incentive Plan in the terms stated in the information document published in accordance with the applicable regulations;

- to grant the Board of Directors, with the power to sub-delegate, all the necessary or appropriate powers to implement the initiative and make any amendments and/or additions needed to actuate the resolution, also for the purposes of compliance with applicable regulatory provisions, including the power to adopt specific regulations for the initiative, with authorisation to carry out in due time acts of disposal free of charge of the ordinary treasury shares in the Company's portfolio to the benefit of the beneficiaries of the Long-Term Incentive Plan 2023- 2025 for as long as needed.

Request for authorisation for the purchase and disposal of treasury shares to service the Short-Term Incentive Plan (MBO) 2023 and Long-Term Incentive Plan 2023-2025, inherent and consequent resolutions

Dear Shareholders,

you have been called to discuss and resolve on the proposal to approve the authorisation to purchase and dispose of treasury shares, pursuant to Articles 2357 and 2357-ter of the Italian Civil Code and Article 132 of Legislative Decree 58 of 24 February 1998 (the "CLF") and in compliance with the provisions of Article 5 of EU Regulation 596/2014 (the "MAR") and EU Delegated Regulation 2016/1052 (the "Delegated Regulation"), to service the Short-Term Incentive Plan (MBO) 2023 and the Long-Term Incentive Plan 2023-2025 (the "Plans").

This explanatory report (the 'Explanatory Report') drafted pursuant to and in accordance with Article 73 of the regulation adopted by Consob with resolution 11971 of 14 May 1999 (the 'Issuer Regulation') and the relevant Annex 3A, Schedule No. 4, illustrates the reasons and terms of the proposal.

A. Reasons for requesting authorisation to purchase and dispose of treasury shares

The Board of Directors submits to the Shareholders' Meeting a request for authorisation to carry out purchase operations of ordinary shares of Telecom Italia S.p.A, without nominal value, (the "Shares") and to dispose of the same in compliance with applicable regulations and, in particular, with the conditions set forth in Article 5 of the MAR, so as to create the necessary resources to meet the obligations arising from the Plans, having the purpose of incentivizing, building loyalty and retaining top management in the TIM Group, submitted for approval to today's Shareholders' Meeting and described in the information documents available on the Company's website at www.gruppotim.it/agm to which reference should be made for full details.

The request for authorisation is therefore not a preliminary to operations for reducing share capital by cancelling the Shares purchased.

With reference to the disposal of the Shares thus acquired, considering the purposes underlying this request for authorisation, the Board of Directors proposes that the Shareholders' Meeting authorise the allocation, free of charge, of such Shares to the beneficiaries of the Plans, provided, of course, that the conditions set forth in the relevant implementing regulations are met, specifying that such procedures will also be applicable to the treasury shares already held in the Company's portfolio. Authorisation is also requested for the Board of Directors to use any Shares in excess of those actually used to service the Plans, to service other remuneration and incentive plans approved by the Shareholders' Meeting and/or sold on or outside the market, possibly even through the transfer of rights in rem and/or personal rights.

In any case, all purchases and disposals will be carried out in compliance with the law and applicable regulations, in particular concerning 'market abuse', and ensuring equal treatment of shareholders.

B. Maximum number of shares in the authorisation proposal

At the date of formulating this proposal, the certified share capital of Telecom Italia S.p.A. is represented by 21,357,258,195 shares, of which 15,329,466,496 are ordinary shares and 6,027,791,699 are savings shares, all without par value.

Without prejudice to the provisions of Article 2357, subsection 1 of the Italian Civil Code, the authorisation requested concerns the purchase of treasury shares, in one or more instalments, for a maximum number of 135,000,000 Shares (corresponding to 0.88% of the capital of the category and to 0.63% of the total capital), it being understood that purchases may not be made for amounts that are not covered by the available reserves resulting from the Company's last duly approved financial statements.

In any case, the number of treasury shares that may be purchased may never exceed the limit of one-fifth of the share capital pursuant to Article 2357, subsection 3 of the Italian Civil Code, also taking into account for such purpose the shares of the Company already owned or that may be acquired from subsidiaries.

C. Further useful information for assessing compliance with Article 2357, paragraph 3 of the Civil Code

As of today, the Company holds 115,942,196 Treasury shares, representing approximately 0.54% of the share capital. No treasury shares are held through subsidiaries, trusts or intermediaries.

It follows that the maximum number of Shares proposed for purchase is within the legal limits, subject to the limitations set forth in the previous paragraph. In such regard, it should be noted that the draft financial statements of TIM S.p.A. as at 31 December 2022, submitted for the approval of the same Shareholders' Meeting called for the approval of this Authorisation, show available reserves of a total of more than 400 million euros (already taking into account the proposed covering of the losses for the year 2022).

Upon the purchase or sale of Shares, as further clarified below, the appropriate accounts postings must be made, in accordance with the legal provisions and applicable accounting standards.

D. Duration for which authorisation is required

It is proposed that the purchase authorisation be granted for a period of eighteen months from the date of the resolution of the shareholders' meeting.

Authorisation for the disposal of treasury shares already in the portfolio and those that will be purchased for the purposes illustrated above is requested without time limits, in light of there being no regulatory constraints in this regard and of the need to have maximum flexibility, also in terms of timing, to carry out the disposal of the same.

E. Methods of purchase

The purchase of the Shares will be carried out on regulated markets, pursuant to Article 132 of the Consolidated Law on Finance and Article 144-bis, subsection 1, letter b) of the Issuer Regulation, in accordance with the operating procedures set forth in the organisational and management regulations of such markets, so as to ensure equal treatment of the Shareholders.

Purchases will therefore be made, exclusively and in instalments, on the Euronext Milan market (formerly Electronic Share Market) organised and managed by Borsa Italiana S.p.A., according to operating procedures established by the latter that do not allow the direct matching of trading proposals for purchase with predetermined trading proposals for sale.

F. Minimum and maximum prices

With reference to the fee for the purchase operations, the price of each of the treasury shares, including ancillary purchase costs, must be within the lower limit of not less than 5% (five per cent) and the upper limit of not more than 5% (five per cent) of the official price recorded by the share on the Euronext Milan market on the day prior to the purchase. This range is proposed in compliance with the rules of the Italian civil code that require the minimum and maximum price to be defined.

In any case, the price may not be higher than the higher of the last and the current independent purchase bid on the market.

Resolution proposed to the Assembly

In light of the above, the Board of Directors submits the following resolution proposal to the Shareholders' Meeting for approval:

The Ordinary Shareholders' Meeting of TIM S.p.A.,

- having examined the explanatory report of the Board of Directors
- having examined the financial statements as at 31 December 2022 just approved

resolved

- to authorise, pursuant to Articles 2357 and 2357-ter of the Italian Civil Code and Articles 132 of the CLF and 144-bis of the Issuer Regulation, and in compliance with the trading conditions set forth in Article 3 of the Delegated Regulation implementing the MAR, the purchase of a maximum number of 135,000,000 Telecom Italia S.p.A. ordinary shares, without nominal value, (the "Shares") and the performance of acts of disposal of the same, as well as those purchased on the basis of previous plans to purchase treasury shares, at the following conditions:
  - the authorisation is limited to purchases to be made to service the Short-Term Incentive Plan (MBO) 2023 and the Long-Term Incentive Plan 2023-2025 (the 'Plans');
  - the purchase price of each of the Shares, including ancillary purchase costs, must be within the lower limit of not less than 5% (five per cent) and the upper limit of not more than 5% (five per cent), of the official price recorded by the share on the Euronext Milan market (formerly Electronic Share Market) on the day prior to the purchase;
  - the Company may purchase the Shares, in one or more instalments, within 18 months of the date of this resolution;
  - purchases will be made within the limits of the distributable profits and available reserves resulting from the last duly approved financial statements;
  - the purchase of the Shares will be carried out on regulated markets, pursuant to Article 132 of the Consolidated Law on Finance and Article 144-bis, subsection 1, letter b) of the Issuer Regulation, in accordance with the operating procedures set forth in the organisational and management regulations of such markets, so as to ensure equal treatment of the Shareholders. Purchases will therefore be made, exclusively and in instalments, on the Euronext Milan market organised and managed by Borsa Italiana S.p.A., according to operating procedures established by the latter that do not allow the direct matching of trading proposals for purchase with predetermined trading proposals for sale.
  - the Shares may be allocated without limitations of time, free of charge, to the beneficiaries of the Plans, subject to compliance with the laws and regulations in force at the time;
- to authorise, without time limits, the allocation of the Shares acquired pursuant to this authorisation, or in any case in TIM's portfolio, to service the Plans, as well as - in case of any surplus - to service any other remuneration and incentive plans approved by the Shareholders' Meeting and/or their sale on the market or outside it, possibly even through the transfer of rights in rem and/or personal rights including, by way of example only, securities lending, for the purposes permitted by law and at the terms, methods and conditions of the deed of disposal of treasury shares deemed most appropriate in the Company's interest;

- to appoint the Chairman of the Board of Directors and the Chief Executive Officer, also severally and with the power to sub-delegate:
  - to execute today's resolution by, inter alia, identifying the reserve funds to be used for the purchase of treasury shares, and to proceed with the consequent accounting pursuant to law, as well as to dispose of the treasury shares already available in the company's assets for the best execution of this resolution;
  - to establish the methods, timing and all the implementation and ancillary terms for the best execution of this resolution, to such purpose making all the appropriate evaluations and verifications and handling all the related duties, requirements and formalities, none excluded or excepted; and
  - to deal with any other formalities relating to the disposal operations referred to in this resolution, including the possible granting of appointments to legally qualified brokers and with the power to appoint special agents.

GLOSSARY

The following explanations are not intended as strict definitions, but to assist readers to understand certain terms as used in this Annual Report.

2G (second-generation Mobile System)

Second-generation mobile systems using digital encoding and including GSM, D-AMPS (TDMA) and CDMA. 2G networks are in current use all over Europe and other parts of the world. These systems support voice and limited data communications, as well as auxiliary services such as fax and SMS.

3G (third-generation Mobile System)

Third-generation wireless system, designed to provide high data speeds, always-on data access, and greater voice capacity. 3G networks allow the transfer of both traditional communication services (telephony, messaging) and data (such as downloading Internet information, exchanging email, and instant messaging). The high data speeds, measured in Mbps, are significantly higher than 2G. 3G networks technology enable mobile video, high-speed Internet access. The standards of the 3G technology include UMTS, based on WCDMA technology (quite often the two terms are often used interchangeably) and CDMA2000.

3GPP (3rd Generation Partnership Project)

The 3rd Generation Partnership Project (3GPP) unites seven telecommunications standard development organizations (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC), known as "Organizational Partners" providing their members with a stable environment to produce the Reports and Specifications that define 3GPP technologies as basis for a Mobile Broadband Standard. The 3GPP specifications cover cellular telecommunications technologies, including radio access, core network and service capabilities, which provide a complete system description for mobile telecommunications.

3GSO (Third Generation Switch Off)

Activity aimed at switching off 3G already implemented by various operators around the world. TIM will execute it in 2022. The frequencies used can be made available to newer systems such as 5G to ensure greater coverage and capacity while respecting electromagnetic limits.

4G (fourth-generation Mobile System)

Fourth-generation systems are designed to provide, in addition to legacy services, mobile broadband Internet access to several kinds of devices such as laptops with wireless modems, smartphones, tablets, and other mobile devices. Current and future applications include mobile web access, IP telephony, gaming services, high-definition mobile video, video conferencing, Internet of Things and cloud computing applications. 4G standards include LTE e LTE-A (LTE-Advanced). LTE offers a higher spectral efficiency in bits per Hertz and download bandwidth up to 150 Mbit/s per cell reducing the latency time. LTE enables services that require high interactivity (e.g. gaming, video conferencing). A further development of LTE, called "LTE Advanced," is being implemented and will allow reaching even higher bitrates in download.

4K o UHD (Ultra High Definition)

4K, also called Ultra HD (defined by the Blu-ray Disc Association), is a resolution standard for digital television, digital cinema and computer graphics. 4K refers to a television resolution of 3,840 x 2,160 pixels. This is four times the number of a Full HD television; the higher pixel density produces a clearer, cleaner and a better defined image, with more detail and texture. Its evolution is represented by 8K which will be 4 times higher.

5G (fifth-generation Mobile System)

The term 5G indicates the set of technologies whose standards define the fifth generation of mobile telephony with a significant evolution compared to 4G / IMT-Advanced technology. Its global distribution started in 2019. The main elements of the 5G network are:

- Gbit-rate significantly higher than 4G in larger spectrum bandwidth (up to tens of Gbit/s over hundreds of MHz) to ensure greater quality of service, for innovative services such as video download and live streaming;
- ultra-low latency in the order of milliseconds;
- possibility of connecting simultaneously hundreds of thousands of objects (Internet of Things): wearable technologies, automatic systems for traffic control, assisted driving for vehicles, home automation;
- ability to connect moving vehicles at higher speeds.

5G Core

It is the "core" segment of a 5G network designed to be natively cloud native. The interactions among its components (Network Functions) are based on service exposure paradigm similarly to what happens for Web Services. The new 5G Core also introduces new orchestration capabilities and new functionalities such as Network Slicing, edge computing support and service exposure towards third parties.

5G NR (5G New Radio)

It is the new 5G Radio Access Technology (RAT). See 5G SA and NSA.

5G NSA

The non-standalone (NSA) mode refers to a 5G deployment option where NR works in cooperation with an LTE access.

5G SA

The standalone (SA) mode refers to a 5G deployment option based only on one 5G RAT (i.e. NR or LTE) without cooperation with another RAT), connected to a 5G Core Network.

Access charge

Amount charged by national operators for the use of their network by other network operators also known as an "interconnection fee".

ABR streaming (Adaptive Bit Rate)

Adaptive bitrate streaming or ABR streaming, sometimes shortened to ABS, is a technique for dynamically adjusting the compression level and video quality of a stream to match bandwidth availability.

ADS (American Depositary Shares)/ ADR (American Depositary Receipt)

Instruments used for the listing on the NYSE (The New York Stock Exchange).

ADSL (Asymmetric Digital Subscriber Line)

Technology that transforms through a modem the traditional copper fixed line into a high-speed digital connection for the transfer of multimedia data. ADSL is an asymmetrical technology used to achieve broadband transmission.

AGCOM (Autorità per le Garanzie nelle COMunicazioni)

Italian National Regulatory Authority related Communication.

Agile

In software engineering, the expression Agile (or agile software development) refers to a set of software development methods that are opposed to traditional models such as cascade models (e.g. waterfall model); Agile methods propose a less structured approach focused on the objective of delivering to the customer quickly and frequently software that is functional and with best quality. Among the practices promoted by agile methods, today in general referred to the Project Management of products (not exclusively software), there are: the setup of small, poly-functional and self-organized development teams, iterative and incremental development, adaptive planning, and the direct and continuous involvement of the customer in the product development process.

AI (Artificial Intelligence)

Ability of a technological system to solve problems and carry out tasks and activities typical of the mind and human behavior. In the computer science field, it is the discipline that deals with creating machines (hardware and software) able to "act" autonomously (solve problems, perform actions, etc.).

Analog Transmission

Analog transmission is a method of transmitting voice, data, image, or video information using a continuous signal that varies in amplitude, phase, or other property, in proportion to that of a variable. An example is the transfer of a source signal, using an analog modulation method such as frequency modulation (FM) or amplitude modulation (AM), or no modulation at all. In Telco networks analog transmission has commonly been replaced by digital transmission technologies.

AON (Active Optical Network)

Optical distribution network based on active equipment. Used for the first optical networks in the 2000s and then replaced by PON.

API (Application Programming Interface)

An API is a set of procedures used to interact with other programs and expand their functionalities. APIs are software libraries available for a given programming language that extend some functionality of the platforms making them interoperable and open to different implementations.

AR (Augmented Reality)

Reality that surrounds us and which is enriched with additional content such as images, videos, 3D models, etc. viewed via mobile devices.

ASN (Autonomous System Number)

An autonomous system number is a unique identifier that is globally available and allows its autonomous system to exchange routing information with other systems.

ATM (Asynchronous Transfer Mode)

A network protocol through which the transfer of data is achieved using the encapsulation of fixed length (53 bytes) data units, called cells, instead of variable-length packets as is the case in packet-switched networks.

Avatar

Digital representation of a person who, in the XR, allows you to interact with the environment and with other people.

Automation

This term identifies technologies for automated equipment, systems and processes automation, reducing the need for human intervention and simplifying network setup and maintenance activities.

Backbone

Portion of the telecommunication network that supports long-distance connections and aggregates large amount of traffic and from which the connections for serving specific local areas depart.

Backhauling

It refers to the interface between the radio access node and the core network.

Big Data

Big data is a term used to describe the set of technologies and methods for massive data analysis. The term indicates the ability to extrapolate, analyze and relate a huge amount of heterogeneous, structured and unstructured data, to discover the links between different phenomena and predict the future ones.

Bitstream access

Wholesale interconnection services which consist in the supply by a dominant telecommunications operator (incumbent) of access transmission capacity between an end customer and an interconnection point of another operator (OLO).

Blockchain

The Blockchain represents an innovative technology for structuring data and information with sharing on the network; a blockchain system is like a distributed database or virtual register, structured as a chain of blocks (hence the term blockchain) containing the transactions, and whose validation is entrusted to a consensus mechanism distributed on all the nodes of the network participating to the chain. The main characteristics of blockchain are the immutability of the registry, the traceability of transactions and the security based on advanced cryptographic techniques. Blockchain technologies are currently used to support global supply chains, financial transactions (e.g. BitCoin), accounting assets and distributed social networks.

BRAS (Broadband Access Server) - BNG (Broadband Network Gateway)

Also named BNG, it is an equipment that handles the access sessions of fixed broadband users. It authenticates the users, terminates the logical links originated at users' premises, produces user accounting data, may apply policies and QoS techniques.

Broadband

Includes network technologies that allow a transmission speed of at least 2 Mbit/s. These speeds are made available both on the fixed copper network, starting with ADSL technology, and on the mobile network starting with third generation systems. Broadband services include both data and voice services. Data services include high-speed internet access, the ability to download audio and video files, point-to-point and multi-point interactive video services (video calling and video conferencing), video on demand and (download and streaming) television programs.

Broadcast

Simultaneous transmission of the same information to all nodes and terminal equipment of a network.

BSC (Base Station Controller)

Control node of the 2G radio access network and interface with the MSC switching node. It has the task of supervising and controlling radio resources, for both call or data setup and maintenance.

BSS (Business Support System)

The system used by network operators to manage business operations such as billing, sales management, customer-service management and customer databases.

BTS (Base Transceiver Station)

Radio base station transmitting and receiving the GSM radio signal to cover an area , split in one or more cells) by using one or more radio transceivers (TRX). BTS performs also GSM communications ciphering/deciphering.

Bundle

Commercial offer including multiple telecommunications services (voice, broadband internet, IPTV, other) by an operator under the same commercial brand. Dual Play bundle includes fixed telecommunication services and broadband Internet; Triple Play bundle is the "dual play bundle" integrated with IPTV; Quadruple Play bundle is the "bundle triple play" integrated with mobile telecommunication services.

Bypass

Opposite of COLT; these are Central Offices that don't contain active equipments for NGA customers; in long term plans will be released, not before migrating all legacy services.

CaaS (Container as a service)

Through a Cloud CaaS (Container as a Service) offer, a consumer acquires in a flexible and dynamic way from a Cloud Provider an environment typically based on Kubernetes technology in which it is possible to execute containers. The CaaS environment will manage the life cycle of the container and the related scaling-up and upgrade needs in line with the shared policies.

Caching

Web contents caching (videos, HTML pages, images, etc.) is a technology that allows to reduce bandwidth usage and content access time. A cache stores copies of documents requested by users in location closer to the users than the originating sites, so that subsequent requests can be satisfied by the cache itself, under appropriate conditions. The enabling technology could be also based on a standard and open approach (open caching) or using a proprietary and closed one (alien caching).

Carrier

Telecommunication services operator, providing a transport of communication services by means of its physical telecommunication network.

Carrier Aggregation

Technology used to aggregate more radio carriers to increase the transmission speed over a wireless network.

CAS (Conditional Access Systems)

Conditional access systems (CAS) are used by content providers, such as pay-TV operators, to ensure only those subscriber devices which meet certain conditions can access the protected content. Conditional access systems work by encrypting digital transport streams (the pay-TV content) and sending authorizations to decrypt the content separately.

CAT M1 (Category M1) or LTE Cat-M

Cat-M1, also known as LTE Cat-M, is a low-cost LPWAN technology developed by 3GPP as part of the 13th release of LTE standard. It's a complementary technology to NB IOT, with faster upload and download speeds of 1Mbps and lower latency of 10 to 15ms.

CCA (Current Cost Accounting)

A method of accounting that values assets at their current replacement cost rather than their original cost.

CDMA (Code Division Multiple Access)

CDMA is a channel multiple access method used in radio communication. First radio systems based on CDMA were developed by Qualcomm, and commercially introduced in 1995. It enables the simultaneous transmission on the same channel of multiple signals, each of which is uniquely coded to distinguish it from the other messages.

CDN (Content Delivery Network)

Content Delivery Networks), are content distribution systems (especially large multimedia contents, such as IPTV) managed by a Service Provider for the provision of audio streaming services and video, with better quality towards customers.

CDP (Carbon Disclosure Project)

International initiative that encourages companies to focus on the management of the risks and opportunities emerging from climate change.

Cell

Geographical portion of territory illuminated by a radio base station.

Central Office

A building where the copper wires or optical fibers that make up the access network, reaching the customers, originate from. It hosts equipment for telephony services ('Stadio di Linea' in TIM terms), broadband services (DSLAM) and possibly ultrabroadband services (OLT). Some COs also host equipment of higher hierarchical rank (SGU for telephony, router for data services), and those COs also collect traffic from the other COs which are not so equipped.

Central Unit (CU)

It is a logical node hosting PDCP, RRC and SDAP protocol layers and other control functions based on a higher layer functional split.

Channel

The portion of a communications system that connects a source to one or more destinations by means of transmission media and optical, electric, electromagnetic signals.

CI/CD (Continuous Integration/Continuous Delivery):

In software engineering, CI/CD or CICD is the combined practices of continuous integration (CI) and (more often) continuous delivery or (less often) continuous deployment. CI/CD bridges the gaps between development and operation activities and teams by enforcing automation in building, testing and deployment of applications.

Closed User Group

Group of customers who can make and receive calls or messages within the group at special conditions (restricted access, dedicated pricing).

Cloud

The term Cloud is used as an abbreviation of the concept of "Cloud Computing, i.e. a model of consumption of processing resources (for example networks, servers, memory, applications and services) through the network; with the Cloud, the end customer, otherwise defined as cloud consumer, is allowed to access, widespread, easy and on-demand to a shared and configurable set of resources that can be quickly acquired and released with minimal management or interactions with the service provider. The Cloud model is made up of five essential features: 1) Self Service on customer request, 2) broad-network access, 3) resource sharing, 4) elasticity/automation in resource demand, 5) certified SLAs, three service models (see also SaaS, PaaS and IaaS) and four distribution/deployment models (private, public, hybrid and communities).

Cloud Continuum

A cloud composed by a set of point of presence spanning from central to edge locations working as a single cloud.

Cloud native

Cloud native refers to an approach to build applications in a way that allows the full exploitation of the cloud paradigm (see Cloud).

CNI (Cloud Native Infrastructure)

Cloud-native infrastructure is the hardware and software that runs and supports the applications that are built to draw on the cloud's advantages, and that only exist in the cloud

CNF (Cloud Native Function)

Virtualized network functionality on COTS (Commercial Off The Shelf) HW, hosted on Telco Data Center or Public Cloud, flexible and dynamic capacity, use of Containers and Micro Services, automated LCM.

Cogeneration

Cogeneration is the combined production of electrical (or mechanical) energy and useful heat from the same primary source. By using the same fuel for two different purposes, cogeneration aims at a more efficient use of primary energy, with associated cost savings especially in production processes where there is a strong overlap between the use of electricity and heating.

Cognitive Computing

Advanced artificial intelligence system in which the machines have part of the typical functions of a human brain. Cognitive computing technologies are able to process enormous amounts of information, learn autonomously, interact in human language and reproduce human thought models.

COLT (Central Office Long Term)

It refers to Central Offices that remain also for long term plans, connecting NGA customers with Fiber Optic.

Community

A group of people who have some interests in common and communicate via Internet (i.e. via social network).

Connected Car

A connected car is a vehicle with an internet access and sensors for sending and receiving signals, perceiving the surrounding environment and to get in touch with other vehicles and services.

Container

A container is an abstract unit of software that is executable and self-contained, with everything needed to run an application: code, runtime, tools, and system libraries. Containers have defined parameters and can run a specific program, workload, or task. Each container that runs is reproducible. Containers allow you to decouple applications from the infrastructure of the host on which they run. This approach makes it easier to deploy on different clouds or operating systems.

Co-siting

Agreements to share technological sites (for Telecommunications, specifically, sites of access to the network and passive infrastructure) by several operators in order to achieve a more efficient use of network infrastructure in urban and rural areas.

CO_2 - Carbon Dioxide

Carbon dioxide is one of the major greenhouse gases. It is linked to industrial processes and is the product of combustion especially as the result of the use of fossil fuels.

CMS (Content Management System)

A content management system, often abbreviated as CMS, is software that helps users create, manage, and modify content on a website without the need for specialized technical knowledge.

CPE (Customer Premise Equipment)

The Customer Premise Equipment is an electronic device (terminal, telephone, modem) for telecommunications used on the user's side that is able to connect directly to the geographic transmission network through appropriate interfaces. The connection between the CPE and the network can be realized on physical carrier (optical fiber, telephone twisted pair) or on radio (wireless) carrier.

COTS Commercial Off The Shelf

A software and/or hardware product that is commercially ready-made and available for sale, lease, or license to the general public.

CPS (Carrier Pre-selection)

Within the framework of the Equal Access policy guaranteed to all operators, the CPS (Carrier Pre-Selection) is a feature of the telephone network that allows to permanently specify the call routing to the chosen operator. This function must be implemented by the access operators in their own plants.

CPU (Central Processing Unit)

The component of a computer system that controls the interpretation and execution of instructions. The CPU of a PC consists of a single microprocessor. The term “processor” is often used to refer to a CPU.

C-RAN

It refers to a Centralized Cloud RAN, a paradigm addressing centralized processing, collaborative radio, real-time cloud computing, and power efficient infrastructure. It is an architecture that aggregates Base Stations computational resources into a central pool by enabling improved radio coordination. C-RAN exploits software-defined networking (SDN) and Network Functions Virtualization (NFV) techniques as well as data center processing capabilities to enable the separation of the control and data planes and to achieve high flexibility by allowing network resource sharing in a dynamic way.

Cybersecurity

It deals with the analysis of threats, vulnerabilities and the risk associated to internet-connected systems, including hardware, software and data, to protect them from the attempt to expose, alter, disable, destroy, steal or gain unauthorized access or make unauthorized use of an asset.

DAM Digital Asset Management

Digital asset management (DAM) is the integrated system for centralized strategic management of content. It is the software that allows to create, organize and distribute content on different channels such as websites and applications, and increases the effectiveness of communication.

DAS (Distributed Antenna System)

It is a network of distributed antennas connected to a signal source in order to provide wireless services in a geographical area or indoor. The Radiofrequency signal is combined and distributed through an antenna system.

Data Center

The Data Center is the department of a company that hosts and manages back-end IT systems and data repositories: so, its mainframes, servers, databases, etc. In the past, this type of management and control was in a single physical place, hence the name of data center. The development of new distributed computing technologies has inaugurated new management criteria that see more data centers located/distributed at both a physical and virtual level.

Data mining

The process of discovering patterns and insights in large data sets using statistical and machine learning techniques.

Data warehousing (DW)

A method of collecting and storing large amounts of data in a central location for analysis and reporting.

DCC (Digital Contact Center)

It is a set of platforms used to connect customers to most appropriate human and virtual Customer Care agents, via different channels (voice, web, apps, mail, chat, sms) and to support agents in the interaction with customers (e.g. Verbal Ordering, Back Office).

DDoS (Distributed Denial of Service)

A distributed denial-of-service (DDoS) is an attack to a target, such as a server, website or other network resource, and cause a denial of service for users of the targeted resource. A flood of incoming messages, connection requests or malformed packets to the target system forces it to slow down or even crash and shut down, thereby denying service to users or systems.

Decommissioning

The term decommissioning means the disposal of the oldest technological solutions (legacy or obsolete) in order to rationalize and simplify the current Telecommunication networks with the aim of optimizing investments and improving the quality and time-to-market of services.

Deep learning

A subset of machine learning that involves training neural networks with multiple layers on large amounts of data.

DevOps

In computer science, with DevOps (from the English contraction of Development and Operations) we mean an agile method of software development that aims at communication, collaboration and integration between developers and operations operators. DevOps is therefore an approach to the development and implementation of applications in a company, that has as its objective the release of the product, the testing of the software, the evolution and maintenance (correction of bugs and minor releases) to increase reliability and security and speed up development and release cycles.

Digital divide

The gap between people with effective access to digital and information technology and those with very limited or no access at all. The term encompasses among other things: gaps in ownership of or regular access to a computer, or internet access due to being located in geographical areas with no broadband connectivity.

Distributed Unit (DU)

It is a logical node hosting RLC/MAC/High-PHY protocol layers based on a lower layer functional split.

DLA (Data Layered Architecture)

It is an architecture for real-time management of user data in telecoms networks (such as user profiles, etc.). It introduces a separation between a logically centralized data storage layer, taking care of data consistency and availability, and a front-end layer which handles requests coming from network elements.

DNS

The register containing the numeric IP addresses (for example 123.456.789.0) associated with the alphanumeric addresses (name.surname@dominio.com) commonly used to identify a website or e-mail address.

DPI (Deep Packet Inspection)

It is a technology for analysis of live traffic packets which looks 'deeply' into packets payload, i.e. up to application level, rather than just at IP/TCP/UDP headers level. It enables advanced traffic management.

DRM (Digital Rights Management):

Digital rights management (DRM) is a way to protect copyrights for digital media and content. This approach includes the use of technologies that limit the copying, reproduction and use of copyrighted works, protected contents and proprietary software.

DSL Network (Digital Subscriber Line Network)

It is a network technology family that provides wide bandwidth digital transmission at short distances, through the traditional twisted copper pairs from the first switching office to the end user.

DSLAM (Digital Subscriber Line Access Multiplexer)

DSLAM denotes equipment multiplier of digital access lines able to process digital signals of various clients with xDSL lines and multipliy them in a high rate data link to the nodes of the Internet.

DSS (Dynamic spectrum sharing):

Dynamic Spectrum Sharing (DSS for short) is a new antenna technology that for the first time enables the parallel use of LTE and 5G in the same frequency band. The technology determines the demand for 5G and LTE in real-time.

DTT (Digital Terrestrial TV)

Digital Terrestrial Television Broadcasting is a type of broadcasting technology that provides a more effective way of transmitting television services (in terms of number of channels and images quality) using a digital system.

DVB-H (Digital Video Broadcasting-Handheld)

DVB-H was a standard for the transmission of digital video optimized for mobile networks and handheld devices such as smartphones and cellular phones.

DWDM (Dense Wavelength Division Multiplexing)

It is a technology for multiplying and transmitting at the same time optical signals with different wavelengths in a single optical fiber in order to increase the available amount of bandwidth.

EDGE (Enhanced Data for GSM Evolution)

It is a technology that increases the speed of data transmission of the GPRS the standard from 30-40 Kbit /s to 400 Kbit / s in the best radio transmission condition.

Edge (Network Edge)

It is a segment of the network lying between access and core, wherein service functions are located (such as, e.g. those performed by BRAS). Depending on the context, it may be quite distributed e.g. to the level of mobile Base Station, or less distributed e.g. at the edge of the backbone.

Edge cloud

It refers to a cloud infrastructure deployed at the network edge. An Edge Cloud architecture is used to decentralize (processing) power to the edges (clients/devices) of the network.

EEB (Energy Efficiency in Buildings)

International initiative promoted by the WBCSD (World Business Council for Sustainable Development) for research in energy efficiency in buildings in order to reduce the environmental impact and the energy costs.

EFFC (Extraction Full Free Cooling)

A cooling system for the reduction of consumption without the use of greenhouse gases. The EFFC is based on the principle of free cooling (forced ventilation without the use of air-conditioning), combined with a system to extract the hot air produced by the apparatus and further cooling (adiabatic) of incoming air obtained by exploiting a zone with a high concentration of nebulized water.

eMBB (Enhanced Mobile Broadband)

Mobile broadband data service over LTE-A, 5G network.

EMF limits (ElectroMagnetic Field limits)

Electromagnetic fields are present everywhere and are generated both by natural sources (thunderstorms, earth magnetism) and human-made ones such as power lines, TV antennas, mobile base stations, microwave ovens. They are known to affect human body in ways that depend on their frequency. For radiofrequency fields, such as those produced by mobile base stations and mobile handsets, the major biological effect is heating of the body tissues. The current view of scientific community, as outlined by World Health Organization, is that while exposure to high levels of EMF are harmful to health, there is no evidence that prolonged exposure to low levels of EMF might be harmful. The definition of what is meant to be a level low enough to be harmless is left to individual Countries, however guidelines have been defined by the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

Regarding Italy, the exposure limit is 20 V/m. Moreover, in homes, schools, playgrounds and places where people may stay for longer than 4 hours per day, an 'attention value' of 6 V/m is applied and averaged over any 24 hour period.

EMS (Environmental Management Systems)

Environmental management systems contribute to the sustainable management of production and support processes and are a stimulus to the continual improvement of environmental performance as they are tools to ensure effective management, prevention and the continuous reduction of the environmental impact in work processes.

eNB (Evolved Node B)

It is the Radio Base Station in 4G technology, which implements LTE radio interface and manages its radio resources.

EPC (Evolved Packet Core)

It is the core segment of a 4G network. It performs management of user mobility, routing of traffic (which in 4G is only packet traffic), policy enforcement, production of accounting data, interconnection with IP networks.

EPC NSA (Evolved Packet Core Non StandAlone)

Mobile 4G Core Network capable of supporting LTE and New Radio accesses connected in dual connectivity.

EPG (Electronic Program Guide)

Electronic programming guides (EPGs) is menu-based systems that provide users of television, radio and other media applications with continuously updated menus that display scheduling information for current and upcoming broadcast programming.

EPON (Ethernet PON)

EPON also known as Gigabit Ethernet PON or GEPON, is a type of pure optical fiber that uses a symmetrical pattern in both downstream and upstream and can reach a maximum of 10 Gigabits per second of transmission. IEEE standardized solution

EPS (External Power Supplies)

External power supplies of equipment.

ESG (Environmental, Social and Governance)

Environmental, social, and corporate governance (ESG) is a strategic framework for identifying, assessing, and addressing organizational objectives and activities ranging from the company’s carbon footprint and commitment to sustainability, diversity and inclusion, to its overall ethos regarding corporate risks and practices.

eSIM (embedded SIM)

It represents the evolution of the SIM: it is an integrated circuit embedded directly inside a device and consequently not extractable and not replaceable, but remotely managed through the functionality of the device itself.

Ethernet

Family of computer networking technologies for local area networks (LANs) and metropolitan area networks (MANs).

ETSI (European Telecommunications Standards Institute)

EuP (Energy-using Products)

The Eco-Design Directive for Energy-using Products (2005/32/EC) establishes a regulatory framework that manufacturers of energy-using products (EuPs) must follow, from the design phase onward, to increase energy efficiency and reduce the negative environmental impact of products.

Feeder

Carrier class IP routers that perform the function of collecting and concentrating fixed and mobile network traffic as well as commercial one, originating from a basin of Central Office Areas. The traffic collected by the Feeders is delivered in double homing to the Metro nodes on physically diversified routes.

FDD Frequency Division Duplex

Frequency-division duplexing (FDD) is a method for establishing a full-duplex communications link that uses two different radio frequencies for transmitter and receiver operation. FDD operation normally assigns the transmitter and receiver to different communication channels.

FFC – Full Free Cooling

Cooling system based on the use of forced ventilation to reduce energy consumption.

Fronthaul

In the functional split of a Base Station, it refers to the interface between the Remote Unit (RU) and the Distributed Unit (DU).

FSC (Forest Stewardship Council)

The Forest Stewardship Council is an international non-profit NGO. The FSC represents an internationally recognized forest certification system. The purpose of certification is correct forest management and traceability of forestry products. The FSC logo guarantees that a product has been made with raw materials deriving from forests correctly managed according to the principles of the two main standards: forest management and chain of custody. FSC certification is an independent, third-party scheme.

FTTx (Fiber To The x)

It is the term used to indicate any network architecture that uses fiber optic cabling in telecommunications access networks to replace, partially or totally, traditional copper cables. The various technological solutions differ in the point of the distribution network where the fiber connection is made, with respect to the end-user's location. In the case of FTTC (Fiber to the Cabinet) the fiber connection reaches the equipment (distribution cabinet) located on the sidewalk, from where copper connections are run to the customer; in the case of FTTB (Fiber to the Building) the fiber arrives at the base of the building to a distribution box from where the vertical copper connection starts; in the case of FTTH (Fiber to the Home), the fiber connection terminates inside the customer premises. In the case of FTTO (Fiber to the Office), we mean a solution towards the Office, while FTTR (Fiber To The Room), we intend to arrive with the fiber in different rooms of the house.

FWA (Fixed Wireless Access)

Fixed Wireless Access refers to a set of transmission systems developed to exploit specific frequencies of the radio spectrum in order to provide fixed broadband connectivity services (with nominal connection speeds equal to 1 Gbps).

Gateway

An interconnection node between networks. A Gateway node may be used to separate networks belonging to different Domains or make functionally different networks interwork through protocol interworking.

G.FAST

G.FAST (Fast Access to Subscriber Terminal, group "G" of the ITU-T recommendations) is a DSL standard, fourth generation on copper, adopted by ITU-T starting from 2014 that allows to reach aggregate Downstream speeds + Up Stream of about 500 Mbit / s up to 100m and about 800-900 Mbit / s up to 50m.

It is therefore a technology with a speed higher than VDSL2 and eVDSL but, being optimized for very short distances, it requires the network devices to be positioned even closer to the customer than the cabinets line, or rather in distribution boxes at or at the base of buildings.

GPON (Gigabit capable Passive Optical Network)

A passive optical network (PON) is a network architecture that brings fiber cabling to the customer's home using a point-to-multipoint scheme, based on passive optical splitters, to serve multiple rooms with a single optical fiber. GPON is part of a set of PON standards (defined in ITU), which differ according to the maximum overall speed achievable within each optical shaft, a structure often shared with 64 users. In the case of GPON, the maximum speed is about 2.5 Gbps downstream and 1.25 Gbps upstream, shared with a predetermined number of users, which can reach up to 128. Each of the connected lines will then have a maximum nominal speed set by the operator, for example 1 Gbps in download. The other types of GPON standards are:

- XG-PON 10 Gbit/s downstream and 2,5 Gbit/s upstream
- XGS-PON maximum speed 10 Gbit/s downstream and 10 Gbit/s upstream
- NG PON2 maximum speed 40 Gbit/s downstream and 10 Gbit/s in upstream .

GPRS (General Packet Radio System)

Packet switched system to efficiently transmit data over 2G cellular networks.

GPU (Graphics Processing Unit):

Graphics processing unit is a specialized processor (or CPU) originally designed to accelerate graphics rendering

GRI (Global Reporting Initiative)

The Global Reporting Initiative (GRI) is a leading organization in the field of sustainability. GRI promotes sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development.

GRX (GPRS Roaming eXchange for Mobile Operators)

The GRX service allows Mobile Operators to globally interconnect GPRS networks around the world enabling global GPRS roaming coverage.

GSM (Global System for Mobile Communication)

A worldwide standard for digital cellular telephony working on the 900MHz and 1800MHz bands. It belongs to the Second Generation (2G) of mobile systems.

GSMA (GSM Association)

The GSM Association (commonly referred to as 'the GSMA' or Global System for Mobile Communications, originally Groupe Spécial Mobile) is an industry organization that represents the interests of mobile network operators worldwide.

HCFC (Hydrochlorofluorocarbons)

Chemical compounds used mainly in cooling systems to replace chlorofluorocarbons (CFCs) which were banned by the Montreal Protocol. They have a more limited effect in depleting the ozone layer (approximately 10% of the ozone-depleting potential of CFCs).

HCP (Hyperscale Cloud Provider)

Cloud infrastructure provider able to massive scale resources on large number of servers distributed on a global scale.

HFC (Hydrofluorocarbons)

Compounds used in cooling systems. They belong to the family of greenhouse gases. They do not harm the ozone layer.

HDSL (High-bit-rate Digital Subscriber Line)

Technology of xDSL family, standardized in 1994. It provides up to 8 Mb/s symmetrical over copper.

HLR (Home Location Register)

Database where customer data are recorded. It is part of 2G and 3G systems.

Home Access Gateway – Access Gateway – Home Gateway – Residential Gateway

Home networking device that is used to concentrate voice/data/video traffic of customers for private TLC networks and to connect devices in the home to the Internet or other WAN.

Hybrid Cloud

A Cloud solution composed by both private and public resources

Housing

Leasing of physical space to customers, which is managed within a data center for the installation of their own equipment or servers.

HSPA (High Speed Packet Access)

Evolution of UMTS, which enables broadband mobile data both in Downstream (HSDPA) and Uplink (HSUPA), up to 42 Mb/s and 5.76 Mb/s, respectively.

IaaS (Infrastructure as a Service)

Through a Cloud IaaS offer (Infrastructure as a Service, see also Cloud models), a consumer acquires from a Cloud Provider in a flexible and dynamic way computing, memory, network resources and other fundamental calculation resources, through which the customer can develop and run arbitrary software, including operating systems and applications. The consumer does not manage or control the underlying Cloud infrastructure, but controls operating systems, memory, applications and possibly, in a limited way, some network components (e.g. firewalls).

ICT (Information and communication(s) technology)

Broad area concerned with information technology, telecommunications networks and services and other aspects of managing and processing information, especially in large organizations.

IEEE (Institute of Electrical and Electronics Engineers)

An organization of professional scientists aiming at promoting technology science and research in the field of electrical and electronics engineering and related fields. IEEE also works as a publishing house and standardization body.

IETF (Internet Engineering Task Force)

The Internet Engineering Task Force (IETF) is a standards organization for the Internet and is responsible for the technical standards that make up the Internet protocol suite (TCP/IP).

IMS (IP Multimedia Subystem)

It is the architecture for providing IP Multimedia services, i.e. voice/video/text/etc communications over IP networks. It comprises all the network elements related to signaling and media flow handling.

IMSI (International Mobile Subscriber Identity)

The International Mobile Subscriber Identity is a unique identifier associated with a SIM card in cellular networks.

Interconnection

Interconnection refers to the physical and logical connection among public telecommunication networks belonging to different operators, in order to enable users of an operator to communicate with users of the same or a different operator, or to access services provided by another operator.

Internet

Global network for networks interconnection based on a common protocol suite, i.e. TCP/IP, which is the language by which connected equipment (hots) are able to communicate.

Internet of Things

The Internet of Things refers to the extension of Internet to the world of objects (devices, equipment, systems,..), which become recognizable and acquire intelligence thanks to the fact that they can communicate data about themselves and access aggregate information from part of others. There are many fields of applicability: from industrial applications (production processes), logistics and infomobility, to energy efficiency, remote assistance and environmental protection.

IP (Internet Protocol)

A connectionless data routing protocol, used for data transmission on both public and private networks, in particular over the Internet.

IPCC (IP Contact Center)

See DCC.

IP/MPLS (Internet Protocol/Multi Protocol Label Switching)

A packet switching protocol to optimize network behaviors of mapping Layer3 (IP) end-to-end data flow to Layer2 traffic between adjacent network nodes.

IPTV (Internet Protocol Television)

A system that utilizes the Internet Protocol infrastructure to transmit digital television content over a network and deliver it via a broadband Internet connection.

ISDN (Integrated Services Digital Network)

A narrowband system in which several services (e.g., voice and data) may be simultaneously transmitted end to end in digital form.

ISO (International Organization for Standardization)

ISO is the world's leading organization for setting technical standards.

ISPs (Internet Service Provider)

A vendor who provides access to the Internet and World Wide Web.

ITU (International Telecommunication Union)

An international organization that aims to set telecommunications standards and in the use of radio waves. Founded in 1865 in Paris, it is one of the specialized agencies of the United Nations and its head office is in Geneva.

J2C (Journey to Cloud)

"Journey to Cloud" is a transition aiming to migrate corporate assets to the cloud, enabling IT costs and greenhouse gas emissions decrease, business results improvement and innovation pace speed up.

Jitter

In electronics and telecommunications jitter indicates the variation of one or more characteristics of a signal such as, amplitude, frequency, phase, transmission delay. The causes leading to jitter must be kept at the center of the design of electronic systems and components in which signal integrity is a strict constraint.

KPI (Key Performance Indicator)

Measurable performance indicators that allow the performance of a specific activity to be evaluated.

KVAR (kilovolt–amperes reactive)

Measurement system, expressed in kilovolt, of electric current lost in an AC electrical system.

Kubernetes

An open-source platform for container orchestration, allowing for the management of containers at scale.

LAN (Local Area Network)

A private network that covers a local geographic area and provides telecommunications services as well as interconnection between personal computers.

Lambda

Represents the single optical channel on which a signal is transmitted in fiber-optic networks.

Latency

The latency of a system can be defined as the time interval between the time the input arrives to the system and the time when its output is available. In other words, latency is nothing more than a measure of the speed of response of a system.

LCA (Life Cycle Analysis)

Analysis methodology for the evaluation and quantification of environmental impacts associated with a product/process/activity along the entire life cycle from the extraction and acquisition of raw materials to the end of its life.

LLU (Local Loop Unbundling)

Service by which operators other than TIM can lease the local loop, i.e., the wire connection between the TIM local exchange and the customer's premises.

Local Aggregator (LA)

Carrier class IP router that perform the function of collecting and concentrating fixed and mobile network traffic as well as commercial one, for a single Central Office Area. The traffic collected by the Remote Feeders is delivered in double homing to the Feeder nodes, possibly on physically diversified routes.

Local Loop (Twisted Pair)

Twisted pair of copper wires through which the telephone connection reaches users; it is the foundation of traditional telephone lines and it is often called the "last mile".

LPWAN (low-power wide area):

A low-power wide-area network (LPWAN or LPWA network) is a type of wireless telecommunication wide area network designed to allow long-range communications at a low bit rate among things (connected objects), such as sensors operated on a battery.

LTE (Long Term Evolution)

See 4G.

Machine Learning

It is the ability of computers to learn without having been explicitly and preventively programmed.

MBB (Mobile Broadband)

Mobile broadband data service on 3G / 4G-LTE network.

MEC (Multi-access Edge Computing)

A technology that allows edge devices, such as smartphones and IoT devices, to process data closer to the source, reducing latency and improving performance.

ETSI MEC (Mobile Edge Computing)

A specific type of edge computing, standardized by ETSI, that is designed to meet the needs of mobile network operators and their subscribers, providing low-latency, high-bandwidth services to mobile devices.

MEMS (Micro-Electro-Mechanical Systems)

MEMS are miniaturized devices ranging in size from a few micrometers to a few millimeters, which execute one or more monitoring, processing or actuation functions by deploying a combination of electronic, mechanical, optical, chemical or biological components integrated on a usually silicon hybrid circuit.

Metro (M)

Carrier class IP routers that perform the function of collecting and concentrating fixed and mobile network traffic as well as of commercial origin relating to their MAN area.

MGCP (Media Gateway Control Protocol)

An Internet Engineering Task Force (IETF) signaling protocol allowing a bridge between classic telephone networks and Internet (i.e., IP-based) infrastructures.

MGW (Media Gateway)

Equipment that processes voice and video traffic adapting codings between different technologies (e.g. from circuit to packet).

Microservices

In the development of modern software applications, when the term micro-services is used, a specific architectural model for the development of a single application as a suite of small services is indicated; each micro-service is identified as a specialized processing process (e.g. a web server, a storage application, etc.) and is able to communicate with fast and lean mechanisms, often based on API interfaces for the description of HTTP resources. These services provide capabilities for the development of a company's business and are particularly suitable for the creation of software products according to agile methodologies; each micro-service can be implemented and managed independently using fully automated implementation algorithms, thus ensuring maximum flexibility in the development and maintenance of applications.

Midhauling

In the functional split of a Base Station, it refers to the interface between the Distributed Unit (DU) and the Central Unit (CU).

MIMO (Multiple Input Multiple Output)

It is a set of techniques aimed to increase the overall bitrate of radio access through simultaneous transmission of two (or more) different data signals on two (or more) colocated antennas, using the same frequency resources. The receiving side, also equipped with two or more antennas, is able to discriminate the different data signals by exploiting the differences in time and direction of arrival of the simultaneous signals that are caused by multipath propagation. Actually, multipath propagation i.e. the fact that a signal from A reaches a point B via multiple paths due to reflection and scattering from objects (such as buildings, trees) is a natural phenomenon affecting radio communications, which used to be seen as an impairment. Conversely, MIMO techniques exploit (using suitable signal coding) this multiplicity of paths to increase capacity.

mMTC (Massive machine type communication)

mMTC, also known as massive machine communication (MMC) or massive Machine to Machine communication, is a type of communication between huge number of machines over wireless networks where data generation, information exchange and actuation takes place with minimal or no intervention from humans.

mmWave (millimeter Wave)

Millimeter waves — often referred to as mmWaves or high-band 5G — are frequencies starting at 24 GHz and beyond. As radio waves increase in frequency, each wave narrows in length. Because of its high frequencies, mmWave has a limited range and struggles to penetrate buildings, but a high transport capacity.

MPEG (Motion Picture Expert Group)

The Moving Picture Experts Group, acronym MPEG is a joint technical committee formed by the international organizations ISO and IEC in 1988. It was created with the aim of defining standards for the digital representation of audio, video and other types of multimedia content in order to meet a wide variety of applications.

MR (Mixed Reality)

AR (Augmented Reality) through special viewers that allow hands-free use.

MSC (Mobile Switching Center)

Executes functions such as controlling calls, switching traffic, billing, controlling and authentication and acts as an interface with other networks.

Multimedia

A service involving two or more communications media (e.g., voice, video, text, etc.) and hybrid services created through their interaction.

Multicast ABR (Multicast Adaptive Bit Rate)

Technology that encodes the video multicast traffic in different streams at different bitrates, used according to the channel conditions, allowing to optimize the use experience the use of network resources.

MVNO (Mobile Virtual Network Operator)

MVNO is a mobile communications service provider that does not own the radio spectrum or wireless network infrastructure over which the MVNO provides services to its customers.

NaaS (Network as a Service)

The term NaaS (Network as a Service) refers to the provision of virtual network services by a Network Provider to a third party, such as a Service Provider not equipped with geographically networked resources, or a medium/large customer that requires basic or advanced connectivity resources on a public or shared network infrastructure. Some examples of services that refer to the NaaS model are VPNs (Virtual Private Networks, Dynamic Bandwidth Services (BoD, Bandwidth on Demand) and Mobile Network Virtualization. Today, the spread of NaaS offers is increasingly supported by flexible network virtualization models and the use of network programming and automation technologies, such as Software Defined Networking (SDN).

Naked

A digital subscriber line without an analog or ISDN telephony service. It is a line dedicated to data services.

NB IoT (NarrowBand Internet of Things)

It is a 3GPP specification enabling the Internet of Things, based on the optimization of narrowband radio access aimed at the application of LTE technology to sensor networks: few and small messages per day, high coverage range (e.g. to reach the counters in the basements), very high battery life (target 10 years), high number of connections per cell (tens of thousands) and very low cost of the modules.

NEF Network Exposure Function

The Network Exposure Function is related to the 3GPP 5G Architecture. This function provides a means to securely expose the services and capabilities provided by 3GPP network functions.

Net Neutrality

Net neutrality is the principle that Internet service providers should treat all data equally and not discriminate or charge differently based on user, content, website, platform, application, type of equipment, or method of communication.

NAT (Network Address Translation)

A technique that is used to map the IP addresses of devices on a private network to a single public IP address to conserve IP addresses and provide security.

Network

An interconnected system of elements. In a telephone network, these consist of switches connected to each other and to customer equipment. The transmission equipment may be based on fiber optic or metallic cables or radio connections.

Network cap

See Price cap.

Network Slicing

Network Slicing referred to 5G. Creation of multiple ad hoc logical networks segregated from each other on the same physical network infrastructure. Each network slice is an isolated end-to-end network tailored to fulfil different requirements requested by a particular application.

Neural network

A type of machine learning algorithm that is modeled after the structure and function of the human brain.

NFT (Non-Fungible Token)

NFTs are "digital certificates" based on blockchain technology aimed at identifying the ownership of a digital product in a unique, irreplaceable and non-replicable way.

NFV (Network Function Virtualization)

The NFV paradigm allows both fixed and mobile network functions to become software applications, called VNF (Virtual Network Function), which the operator can instantiate on commercial servers, exploiting virtualization technologies, separating the link between hardware and software present in the current network devices.

NGAN (New Generation Access Network)

It can be realized with different technological solutions, typically fiber optic and VDSL pairs.

NGDC (Next Generation Data Center)

A major rethink of the IT and Data Center architecture through the physical concentration and virtualization of servers to reduce the costs of maintenance/management and energy consumption, and to improve efficiency.

NGN (Next Generation Network)

New generation network created by TIM to meet the demands of corporations, public administrations and citizens. The new network architecture guarantees an infrastructure designed to cover multiple offers by increasing customization levels and bandwidth availability, removing bandwidth limits and providing a huge capacity along with a wide selection of access systems.

NGNs (Non-Geographic Numbers)

Non-geographic numbers are unique as they are by definition not associated with any particular geographic location (e.g. premium rate services, toll free, directory assistance services).

NG-RAN (Next Generation Radio Access Network)

Access Network including NR (New Radio) radio access technology.

Node

Topological network junction, commonly a switching center or station.

Node B (similar to BTS in GSM)

This is the Radio Base Station in UMTS technology which, via an antenna, sends the UMTS radio signal that creates cell coverage (typically 3 cells for Node B). It also performs functions that are strictly linked to managing the radio connection.

Nodal Optical Center- (Centro Nodale Ottico, CNO)

It is the point of flexibility in the PON architecture and separates the primary optical network from the secondary optical network. The CNO houses the optical divider and the splitters connected to the passive fiber optic network.

N-play offering

Offerings to customers which bundle two or more of the following mobile and fixed services: voice, broadband and ultrabroadband data, video and TV, mobile.

NYSE

The New York Stock Exchange.

OAM (Operation, Administration and Maintenance)

The set of processes, activities, systems and standards involved in the operation, administration and maintenance of a system.

OAO (Other Authorised Operator)

Operators other than the incumbent one that provide services to their customers exploiting the fixed access network of the incumbent.

ODF (Optical Distribution Frame)

ODF is a frame used to provide cable interconnections between communication facilities, which can integrate fiber splicing, fiber termination, fiber optic adapters & connectors and cable connections together in a single unit.

OHSAS (Occupational Health and Safety Assessment Series)

International Standard that sets the requirements that a management system for the protection of workers' health and safety must meet.

OLOs (Other Licensed Operators)

Companies other than the incumbent operator that operate telecommunications systems in a national market.

OLT (Optical Line Termination)

Optical element of the PON network (Passive Optical Network) that acts as an interface between the PON itself and the Backbone network. OLT is located in the central office.

ONAP (Open Network Automation Platform)

Linux Foundation Open Source Framework for network and edge computing services management, orchestration and automation.

ONT (Optical Network Termination)

Optical element of the PON (Passive Optical Network) network that performs the function of interface between the access gateway at the customer's home and the OLT equipment in the Central Office. OLT is located at the customer's site, is powered, receives and decrypts (and vice versa) the optical signal, and converts it into an electrical signal (via an Ethernet output), suitable for the access gateway.

ONU (Optical Network Unit)

Optical element of the PON network (Passive Optical Network) which acts as an interface with the user access device or the distribution network to users. ONU is located in the distribution cabinet.

OPC (Optical Packet Core)

It is the multiservice IP backbone for national transport (formerly named OPB, Optical Packet Backbone). It is made up of interconnected nodes which are called OPC (formerly OPB) nodes, and of the very high capacity connections existing between them.

OPM (Optical Packet Metro)

It is a metro-regional network that provides Ethernet and IP connectivity for fixed and mobile network traffic, as well as for Retail or Wholesale customers. It consists of IP routers distributed on three hierarchical aggregation levels: Remote Feeder, Feeder and Metro, interconnected in double homing by physically diversified (where possible) double-way links.

Open Source

Open Source is a computer software in which source code is released under a license in which the copyright holder grants users the rights to study, change, and distribute the software to anyone and for any purpose. Open-source software may be developed in a collaborative public manner.

Optical fiber

Thin glass, silica or plastic wires, building the base infrastructure for data transmission. An optical fiber cable contains several individual fibers, and each of them is capable of delivering a signal (light impulse) at almost unlimited bandwidth. Optical fibers are usually employed for long-distance communication: they can transfer "heavy" data loads protected from possible disturbances along the way. The driving capacity of optical fibers is higher than the traditional cable and copper twister-pair lines.

Optical Splitter

It is a passive element of the optical network used to create point-to-multipoint optical networks. The optical splitter receives a single optical fiber input (OLT side) and produces N signals on N optical fibers (splitting factor 1:N). In the downstream direction (from OLT to ONT) the splitter "copies" the incoming light on the output optical fibers, thus dividing the light power by N. In the upstream direction (from ONT to OLT) the splitter takes care of adding the light contributions brought by the N optical fibers.

ORAN (Open Radio Access Network)

It refers to Open RAN, an architecture for building the virtualized RAN on open hardware, with embedded AI-powered radio control. Such an architecture is based on well-defined, standardized interfaces to enable an open, interoperable supply chain ecosystem in full support of and complimentary to standards promoted by 3GPP and other industry standards organizations.

OSS (Operations Support System)

Methods and procedures (whether automatized or not) that directly support the daily operation of the telecommunications infrastructure.

OTB (Optical Termination Box)

Passive optical equipment of the PON (Passive Optical Network) that plays the role of splitter of an optical fiber entering the network, in several fibers leaving to the households or plays the role of distributor of incoming and outgoing fibers to give flexibility to the optical network. It is installed a few meters from the households: very often it is located in the counter room of the building, but it can also be mounted on an external wall, or buried or inserted in a cloister.

OTN (Optical Transport Network)

It is a technology designed to enable multiplexing of digital signals for transport over WDM links, and to achieve OAM capabilities for these signals similar to those available in SDH.

This allows a better utilization of WDM links, since it allows to fill lambdas with high rate signals (e.g. 100 Gb/s), which may contain several lower rate signals (e.g. 10 Gb/s), rather than devoting a lambda for each lower rate signal.

OTT (Over the Top) players

Operators offering contents and services on the Internet without owning the proprietary TLC network infrastructure.

Outsourcing

Entrusting an external party carrying out services and business operations. For example, it can be outsourced the planning, construction and hosting services of a telecommunications management system and, ultimately, the management of the entire telecommunications system.

PaaS (Platform as a Service)

The PaaS (Platform as a Service) represents one of the three Cloud offer service models; through a PaaS offer of a Cloud Provider, the consumer is given the opportunity to distribute applications created on their own, or acquired by third parties on the cloud infrastructure, using programming languages, libraries, services and tools supported by the supplier. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, memory, but has control over the applications and possibly the configurations of the environment that hosts them.

Packet-Switched Services

Telecommunications services provided by telcos and long-distance carriers that route packets of data between local area networks (LANs) in different geographical locations to form a wide area network (WAN). Packet-switching services are used to connect multiple LANs into a point-to-multipoint configuration, usually called a multipoint WAN.

Pay-Per-View or PPV

A system by which the viewer pays to see a single program (such as a sporting event, film or concert) at the moment at which it is transmitted or broadcast.

Pay TV

Subscription TV channels. To receive Pay TV or Pay-Per-View programs, a decoder must be connected to the television set, and a conditional access system is needed.

PBX (Private Branch Exchange)

Equipment for private telephone networks.

PCS (Personal Communications Services)

Set of wireless communications functionalities, voice and/or data, which provide similar services such as mobile ones.

PDH (Plesiochronous Digital Hierarchy)

PDH stands for Plesiochronous Digital Hierarchy. It is a telecommunications network transmission technology (first ITU standard in 1988) designed for the transport of large data volumes across large-scale digital networks.

PE (Provider Edge router)

PE is boundary device between a service provider’s area network and a customer’s one

Peering

Peering is the voluntary interconnection of Internet networks, that refer to different Internet Service Providers, which allows users to exchange traffic between different networks.

Penetration (market penetration)

It represents the number of people (or subscriber) who acquires goods / services of a particular brand or a particular category, divided by the population where the service is available.

PKI (Public Key Infrastructure)

A system for managing digital certificates and public-private key pairs, used to secure electronic communications and transactions.

PNF (Physical Network Function)

Network functionality on physical HW, hosted in Telco offices, static capacity, management via Element Manager.

PNRR Piano Nazionale di Ripresa e Resilienza

National Recovery and Resilience Plan

Platform

It’s an execution environment that includes hardware, software, application servers and other supporting tools, for the execution of programs.

PoC (Proof of concept)

Proof of concept (POC or PoC), also known as proof of principle, is a realization of a certain method or idea in order to demonstrate its feasibility, or a demonstration in principle with the aim of verifying that some concept or theory has practical potential.

PON

PON stands for "passive optical network" referring to the optical network composed by non-active components in all stages between the origin (local exchange) and the external sides (subscriber or clients).

POP (Point Of Presence)

The POP is a point of access to the network (router), provided by an Internet Service Provider (ISP), able to route traffic to end users connected to POP.

POTS (Plain Old Telephone Service)

Refers to the basic telephony service, (single-line telephones, fixed-line services and access to public voice telephony network).

Price-cap

Identifies the maximum price limit set by a regulator at which a service /product can be sold.

PSTN (Public Switched Telephone Network)

PSTN, also known as the Public Switched Telephone Network, is the first-generation telephone network and provides basic telephone service.

PTN (Packet Transport Network)

It is a class of equipment that implement natively both SDH and Ethernet technologies, i.e. it is able to transport and switch separately both kinds of traffic. It is used to connect smaller, peripheral Central Offices to larger ones, that is a use case where aside packet traffic (e.g. backhauling of broadband access and mobile sites) also legacy circuit traffic (e.g. voice, 2G backhauling) may be found.

QoE Quality of Experience

Quality of Experience (QoE or QoX) is a measure of the overall level of customer satisfaction. QoE expresses user satisfaction both objectively and subjectively. The QoE paradigm can be applied to any consumer-related business, service and product.

QoS (Quality of Service)

Quality of service (QoS) is the description or measurement of the overall performance of a service, such as a telephony or computer network, or a cloud computing service, particularly the performance seen by the users of the network. To quantitatively measure quality of service, several related aspects of the network service are often considered, such as packet loss, bit rate, throughput, transmission delay, availability, jitter, etc.

QKD (Quantum Key Distribution) - QKE (Quantum Key Exchange)

Quantum key distribution (QKD in acronym, from English: Quantum key distribution) is a system of quantum mechanics to ensure secure communications. It enables two parties to produce and share a random secret key only between themselves which they can use to encrypt and decrypt their messages. This exchange takes place by exploiting the quantum properties of photons. An important and unique property of quantum distribution is the ability of the two communicating users to detect the presence of a third party attempting to obtain information about the key, due to the fact that a measurement process in a quantum system in general disturbs the system.

RAN (Radio Access Network)

It is the part of mobile network that implements the radio technologies, comprising data transport functions over air interface and control functions.

RAN Sharing

Is the most comprehensive form of access network sharing. It involves the sharing of all access network equipment, including the antenna, tower and backhaul equipment. Each of the RAN access networks is incorporated into a single network, which is then split into separate networks at the point of connection to the core.

Reliability (or Availability) (A)

It is the probability of an object to perform a required function under certain operating conditions and at a given instant of time.

Refarming

Reassignment of frequency band of an operator of mobile networks from one technology to another for optimization reasons (examples: UMTS900 instead of GSM900 or LTE1800 instead of GSM1800).

Remote Unit (RU)

It is a logical node hosting Low-PHY protocol layer and RF processing based on a lower layer functional split.

RNC (Radio Network Controller)

RNC is the equipment (or node) for the control and aggregation of 3G network.

ROADM

A ROADM (Reconfigurable Optical Add-Drop Multiplexer) is a remotely reconfigurable optical multiplexer capable of switching traffic in a WDM (Wavelength-Division Multiplexing) system. Its use in a transmission network increases the efficiency of the transport allowing to transmit up to over 90 high bitrate channels (today up to 200Gbit/s) on a single pair of fibers.

Roaming

Agreement among two or more Mobile Operators from different Countries, under which Users can use the mobile network of other Operators participating in the agreement.

The roaming service is activated for example when the terminal is used overseas and enables a mobile user to access a different network from the one to which he subscribes.

RoHS (Restriction of Hazardous Substances)

European Directive No. 95/2002 that regulates the use of hazardous substances in electrical and electronic equipment, in order to contribute to the protection of human health and environment.

RPA (Robotic Process Automation)

Automation of repetitive tasks performed by human operators by means of software ("robots").

RTG (Rete Telefonica Generale)

RTG, also known as the Public Switched Telephone Network, is the first-generation telephone network and provides basic telephone service.

SaaS (Software as a Service)

As part of the Cloud offer service models (see also Cloud entry), the SaaS (Software as a Service) model expresses the faculty provided to the consumer to use a supplier's applications and services, operating on a cloud infrastructure. The applications are accessible from different devices through a light interface (e.g. a thin client), such as an email application on a browser, or from programs with a specific interface. The consumer does not manage or control the underlying cloud infrastructure, including network, servers, operating systems, memory, and even the capabilities of individual applications, except for limited configurations intended for him.

SAR (Specific Absorption Rate)

SAR is a measure of the percentage of electromagnetic energy absorbed by the human body when it is exposed to the action of an electromagnetic field at radio frequency (RF). See also EMF limits.

SCEF Service Capabilities Exposure Function

The SCEF was introduced in Release 13 (LTE) of the 3GPP specifications and was designed to provide a means to securely expose the services and capabilities provided by the 3GPP network interfaces.

SCEF è stato introdotto nella versione 13 (LTE) delle specifiche 3GPP ed è stato progettato per fornire un mezzo per esporre in modo sicuro i servizi e le funzionalità fornite dalle interfacce di rete 3GPP.

SDH Standard (Synchronous Digital Hierarchy)

The European standard for high-speed digital transmission.

It's a protocol of the physical layer used for multiplexing in time division and the subsequent digital transmission of telephony and data, in geographic networks on optical fiber, electric cable or radio link.

SDK (Software Development Kit)

Software development kit is a collection of software development tools in one installable package to ease the creation of applications.

SDN (Software Defined Networking)

Software Defined Networking is a paradigm based on network virtualization whose aim is to transform traditional networks into flexible and intelligent platforms to satisfy in real time the bandwidth requirements and the dynamic nature of digital applications.

SD WAN (Software Defined WAN)

In Networking topic, the SD-WAN (Software Defined WAN) solutions are an innovation of the traditional Wide Area Network solutions and of the Edges IP Networking, developed to offer advanced connectivity services addressed to Business customers. SD-WAN solutions work agnostically with respect to the access technology, the WAN transport network, they use dynamic routing of data on an application basis and in strong integration with Multi-Cloud solutions, to link connectivity to some added-value services such as WAN optimization, application monitoring and advanced security.

Service Discovery

The process of finding and identifying the location of a service, typically done using a service registry or a naming service.

Service Exposure

The Service Exposure is an infrastructure to expose functionalities, called API (Application Programming Interface), both to Third Parties (eg Business Partner), both for internal use.

Service Mesh

A configurable infrastructure layer for microservices application that makes communication between service instances flexible, reliable, and fast.

Service Orchestration

Service orchestration means a single centralized business process that can be performed by an orchestrator (e.g. a SW platform) that coordinates the interaction between various services and is responsible for their invocation and composition, as well as the management of transactions between the individual services. Service orchestration is often compared to Service Choreography, which instead makes a decentralized approach to the composition of services, where each of the services participating in the choreography implements a self-consistent process / workflow.

Service Provider

The Service Provider offers to the Users (Residential or Business) that subscribe his offer, a range of contents and services.

SGU (Local exchange interconnection level for telephone traffic)

Local Exchange for telephone traffic carriage, routing and transmission. See also Central Office.

Shared Access

Shared access to the user's twisted pair with another TLC service provider by using separately voice and non-voice band frequency spectrum. This mode allows keeping voice telephony with an Operator (TIM or others) and ADSL service on the proprietary network of the shared access operator (i.e. not passing over the TIM network but directly through the DSLAM of the operator).

SIP Trunking

Session Initiation Protocol (SIP) Trunking is a service offered by a communications service provider that uses the protocol to provision voice over IP (VoIP) connectivity between an on-premises phone system and the public switched telephone network (PSTN). SIP is used for call establishment, management and teardown.

SL (Distribution Frame level for telephone traffic)

See Central Office.

SLA (Service Level Agreement)

Service Level Agreements are contractual instruments through which service metrics are defined (eg quality of service) that must be respected by a service provider (provider) towards their customers / users.

SLU (Sub Loop Unbundling)

It consists in providing access to the local sub-section of the Operator copper network, in particular the section of the network between the user site and the distribution cabinet or an intermediate concentration point.

Small Cells

Small cells are low energy consumption access nodes to the radio spectrum. . Smaller than the antennas, Small Cells are usually used in mobile telephony, both for the coverage of outdoor areas (squares, pedestrian streets, etc.) and for the coverage of indoor hot spots (airports, stadiums, shopping centers, stations, hospitals, university campuses, etc.).

SME (Small Medium Enterprise)

Market segment of small- and medium-size enterprises (from 3 to 50 employees).

Smart City

The term Smart City refers to an urban area that uses integrated ICT technologies to optimize resources in key areas: mobility, communication, economy, work, environment, administration and construction. From an infrastructural point of view, the use of available resources on the web improves economic and political efficiency and can allow social, cultural and urban development.

Smartphone

Electronic device that combines the functions of a mobile phone and a handheld computer equipped with a complete operating system.

Smart TV

The term Smart TV identifies the new generation of televisions which allows us to enjoy multimedia audio-video content (movies, TV series, music videos, gaming,..) through an internet connection.

SMS (Short Message Service)

Short text messages that can be received and sent through GSM-network connected cellular phones. The maximum text length is 160 alpha-numerical characters.

SOHO (Small Office / Home Office)

Market segment consisting of businesses that use telephone lines to connect to the Internet, as opposed to dedicated lines, and is made up of small businesses, generally with one or two employees, and businesses conducted out of the home.

SON (Self-Organizing Network)

It is a set of technologies and architectures that allows Operators to introduce, in the context of radio-mobile networks, the technological enablers for the automation of network configuration, optimization and assurance processes.

Switch

- (Telephone switch) Synonymous of Telephone Exchange, i.e. network equipment used to set up and route telephone calls to the number called possibly through other switches. They may also record information for billing and control purposes;
- (Network switch) Data networking equipment able to receive and forward packets using information at layer 2 of OSI (Open Systems Interconnection) model (i.e. hardware addresses of other equipment).

Synchronous

Type of data transmission in which there is permanent synchronization between the transmitter and receiver.

STB (Set-Top Box)

It is a customer device able to receive TV signals from a communication network (such as broadband/ultrabroadband access network, terrestrial broadcast, satellite broadcast, etc) and output them to TVs and other display devices (monitors, projectors, etc.). It may include Conditional Access functions to handle paid content.

Tablet

Portable computer with compact dimensions whose screen can be used to write or give commands with the touch of your fingers or using a specially designed stylus.

TAL (Tele Alimentation for Remote Power Feeding)

Technique for power feeding roadside network equipment (such as ultrabroadband equipment located in street cabinets in Fiber to the Cabinet architecture) from the local exchange.

TCO (Total Cost of Ownership)

The TCO represents the global cost of an asset (eg an IT equipment) during its life cycle. The TCO takes into account both direct costs (hardware costs, network infrastructure, licenses) and indirect costs (management, maintenance, energy consumption).

TDD (Time Division Duplexing)

Time division duplex (TDD) refers to duplex communication links where uplink is separated from downlink by the allocation of different time slots in the same frequency band. It is a transmission scheme that allows asymmetric flow for uplink and downlink data transmission.

TDMA (Time Division Multiple Access)

A technology for digital transmission of radio signals between, for example, a mobile phone and a radio base station. TDMA breaks signals into sequential pieces of defined length, places each piece into an information channel at specific intervals and then reconstructs the pieces at the end of the channel.

TIC (Transparent Internet Caching):

Transparent caching is a special form of network caching, transparent for both the requesting and requested entities. The transparent caching node intercepts transparently the content request and delivers the requested content if its cache has a copy of it.

TM Forum TeleManagement Forum

TM Forum is a global industry association within the Telecoms industry made of 850+ global companies working together to break down technology and cultural barriers between digital service providers, technology suppliers, consultancies and systems integrators.

ToIP (Telephony over IP)

The term is often used as synonymous of VoIP, however it has a wider meaning since it includes advanced telephony services (such as video, messaging, possibly some call handling, etc) beyond the basic voice communication.

TRX

Radio transceivers located in BTS.

TTM Time-To-Market

Time to market (TTM) is the total length of time it takes to bring a product from conception to market availability. Companies use time-to-market metrics during new product development (NPD) and new product introduction (NPI) as they strive to gain first-mover advantages (e.g., market share, sales revenue).

UltraBroadBand

Includes all network technologies that offer connectivity from 30Mbit/s to over 1Gbit/s, referring in particular to the peak rate and not to the average available. The definition is related to the characteristics of the fixed and mobile access network. By increasing the capacity and the speed, Ultra Broadband technologies allow quicker access from multiple users to the content available on the net, also on the move, and to take advantage of high quality video up to Ultra HD and interactive gaming.

- Fixed ultra-broadband: includes access technologies that involve the use of optical fiber, known as FTTx.
- Mobile ultra-broadband: refers to the use of the HSPA mobile network (evolution of the 3G network), LTE and its evolutions and the 5G network.

URLLC (Ultra-Reliable Low-Latency Communication)

URLLC is a set of features that provide low latency and ultra-high reliability for mission critical applications such as industrial internet, smart grids, remote surgery and intelligent transportation systems.

UMTS (Universal Mobile Telecommunications System)

See 3G.

Unavailability (U)

It is the probability of an object not being able to perform a required function under certain operating conditions and at a given instant of time.

Unbundling

It is the service offered by the incumbent to the alternative operator which consists of the rental of the local loop i.e. the wire connection between the local exchange and the customer's premises, so that the alternative operator is able to connect the twisted pair from the customer to its own equipment.

Universal Service

The obligation to supply basic service at an affordable price, or at special rates solely for subsidized users.

UPF 5G (User Plane Function)

The 5G User Plane Function (UPF) is a fundamental component of the 3GPP's New Radio (NR) mobile core infrastructure system architecture. The UPF represents the data plane evolution of a Control and User Plane Separation (CUPS) strategy, first introduced as an extension to existing 4G/LTE Evolved Packet Cores (EPCs) by the 3GPP in their Release 14 specifications.

UPS (Uninterruptible Power Supply)

Electrical equipment that provides continuous powering to users in case of power outage.

V2X (Vehicle-to-Everything)

A technology that allows vehicles to communicate with other vehicles, infrastructure, and devices in order to improve safety, traffic efficiency, and overall mobility.

VAS (Value-Added Services)

Value Added Services provide a higher level of functionality than the basic transmission services offered by a telecommunications network. In PSTN and first generation mobile networks the basic service was telephony (switched voice calls, initially analog and later digital ones) while VAS could include data and fax transmission services, as well as call handling features such as call waiting, call forwarding, etc..

As time passed VAS based on call handling grew with further features such as toll free calling, voice virtual private networks, etc. A new class of VAS also developed in mobile networks, including message handling services such as SMS and MMS. In parallel, development of data networks turned data transmission services (initially X25, then Frame Relay, ATM, Ethernet, IP) into basic services of those networks, on top of which there may be VAS such as address translation, data virtual lines and virtual networks, traffic priority, encryption, etc..

A further category of VAS is those based on contents of Service Providers linked to the network, beginning with contents provided on telephony network, going on with contents delivered via SMS (news, meteo, etc) and contents provided via browsing from mobile and fixed terminals, and arriving to video .

VDSL (Very - high – data – rate Digital Subscriber Line)

Access technology that allows providers to give clients, by means of an apparatus installed in their homes, access to voice and TV services on the traditional telephone line with speeds of up to 50 Mbps in downstream.

VDSL2 (Very - high – data – rate Digital Subscriber Line 2)

"2nd generation" VDSL, able to achieve downstream speed in the range of hundreds of Mbps. Actual data rate however is largely dependent upon the distance between customer equipment and network equipment, e.g. for distances of some hundred meters the achievable rate is about 100 Mbps. For this reason, network equipment is typically located in street cabinets, so to be closer to customers. A VDSL2 evolution named eVDSL (enhanced VDSL) yields achievable rates around 200 Mbps; it has been recently deployed in TIM network.

Vectoring

Transmission technology that removes mutual interference (crosstalk) between copper lines bundled in the same cable. Of particular interest is the use on VDSL / VDSL2 / eVDSL lines in view of the growing penetration of ultrabroadband services, which would make interference more perceptible. In this perspective, the use of vectoring allows to maintain the typical performances of the aforementioned technologies. The technology is placed in the ONU apparatus where to be effective it is applied on all the lines of a cable; this means that in case of SLU (Sub Loop Unbundling), that is the presence of ONUs of several operators serving the lines of the same cable, a more complex implementation is required, the MOV (Multi-Operator Vectoring) that coordinates the vectoring of the different ONUs.

Virtualization

An approach to implementation of functionality resorting only to software running on general purpose hardware generally not dedicated, as opposed to approaches resorting also to special purpose and/or dedicated hardware.

Virtual Machine (VM)

It is an isolated, digital instance of a computer—its operating system, applications, and memory— without the underlying hardware that allows organizations to scale compute power, test malware, and develop software.

VLAN Virtual Local Area Network

A virtual local area network (VLAN) is a virtualized connection that connects multiple devices and network nodes from different LANs into one logical network.

VLR (Visitor Location Register)

A database that is used in mobile networks to temporarily store subscriber information and track the location of mobile devices when they are available

VNF (Virtual Network Function)

Virtualized network functionality on HW COTS (Commercial Off The Shelf), hosted on Data Center, flexible capacity, use of Virtual Machine and manual or automatic Life Cycle Management.

VOD (Video On Demand)

TV-program offering on user's request, with payment of a fee for each purchased program (a movie, a soccer match, etc.). Broadcast specifically for cable and satellite TV. Possible purchasing models are SVOD (Subscription Video On Demand) or TVOD (Transactional Video On Demand also know as PPV pay per view)

VoIP (Voice Over IP)

A technology that allows transmission of voice communication over an Internet connection or another dedicated network using the Internet Protocol (IP) data networks (such as IP-based LANs, Intranets or the Internet) instead of a conventional phone line.

VoLTE/ViLTE (Voice over LTE / Video over LTE)

A service providing voice and video calls over IP via LTE radio access, controlled by standard ToIP architecture named IMS (IP Multimedia Subsystem). The mated naming VoLTE/ViLTE is used since the service is essentially the same for voice and video, differing only in the type of media streams that are set up. Since it is standard based, it achieves interoperability among user terminals and between terminals and networks.

VoNR (Voice over New Radio)

Service that provides voice calls over IP via New Radio radio access.

VPN (Virtual Private Network)

A network designed for a business customer or government agency, using the infrastructures of a carrier and providing customized services, and which operates in such a manner as to appear dedicated to the user thereof.

VR (Virtual Reality)

Virtual Reality, or VR, is the use of computer technology to create a simulated environment which can be explored in 360 degrees. Unlike traditional interfaces, VR places the user inside the virtual environment to offer an experience with different degrees of immersion depending on the device used.

VRAN (Virtual Radio Access Network)

It is an architecture applied in 4G/5G networks which implies a split of the Base Station between a Centralized Unit and a Remote or Distributed Unit. The CU is typically placed in a more centralized site than antennas and deals with baseband signal processing, so also the terminology BBU (BaseBand Unit) is used, while the Remote Unit is left at antenna sites to provide radio coverage and is also termed RRU (Remote Radio Unit). Given this split the CUs may be implemented as Virtual Network Functions on a suitable hardware infrastructure, from which the 'virtual' title.

For the viability of the architecture a key issue is the choice of the partition of Base Station functions between CUs and DUs, which affects the requirements on communication links CU-DU (referred to as midhaul). In the 5G development efforts this issue has been addressed by identifying split options that are candidate for standardization.

VULA (Virtual Unbundling Local Access)

A wholesale service provided by incumbent providers to alternative operators, where the incumbent provides – over its broadband access network – the transport of data traffic (a 'bitstream') between the end customer and an interconnection point where the alternative operator receives said traffic. In TIM's case, the interconnection point is located at local exchange level, aside the OLT (Optical Line Termination) i.e. the head end of optical access network.

W3C World Wide Web Consortium

The World Wide Web Consortium (W3C) is the main international standards organization for the World Wide Web. W3C's standards define key parts of what makes the World Wide Web work.

WAN (Wide Area Network)

A private network that covers a wide geographic area using public telecommunications services.

Web Service

Software system designed to support interoperability amongst different computers on a same network or in a distributed context (World Wide Web Consortium (W3C) definition).

WEEE (Waste Electrical and Electronic Equipment)

Waste from electrical and electronic equipment which the holder intends to dispose of as it is faulty, unused or obsolete.

White, gray and black areas

The distinction between white, gray and black areas is relevant for the assessment of state aid to support the development of ultrabroadband networks, in terms of the compatibility of the aid with respect to Community legislation. This classification is contained in the European Union Guidelines:

- white areas are areas without ultrabroadband (UBB) networks (connectivity), where private investors do not intend to invest in the next three years;
- gray areas are areas in which an ultrabroadband (UBB) network (connectivity) is present or will be developed in the next three years by a single private operator;
- black areas are areas in which at least two ultrabroadband (UBB) networks (connectivity) of different operators are present or will be developed over the next three years.

Wi-Fi

Wireless technology enabling data links in a limited area, generally in some hundred meters range, with speed up to tens of Mbps. Typical applications are in homes and offices as alternative to wired LAN, as well as in public services for Internet access, and also to create link between devices (e.g. between a laptop and a smartphone linked to Internet).

Wi – Max (Worldwide Interoperability for Microwave Access)

A technology that allows wireless access to broadband telecommunications networks, initially defined in order to work on ranges up to tens of kilometers and speed in the tens of Mbps. It was defined by the Wi—MAX Forum, a global consortium formed in 2001 that brings together major companies in the field of fixed and mobile telecommunications and whose purpose is to develop, test and promote the interoperability of systems based on IEEE standards.

WDM (Wavelenght Division Multiplexing)

Technology by means of which it is possible to transport on a single optical fiber different flows of information which correspond to distinct and separable wavelengths.

WLL (Wireless Local Loop)

The means of providing a local loop equivalent (e.g. connection from customer premises to local exchange) without the use of wiring, resorting instead to wireless technologies.

WLR (Wholesale Line Rental)

It is a telephony only wholesale service provided by the incumbent to alternative operators, whereby the alternative operator gets an ULL-like service without the need to physically deploy equipment at local exchange sites. It is technically similar to Carrier PreSelection (CPS),and differs from CPS on the commercial side since the end customer is not subscribed to the incumbent's access service, nor billed for it; in this way alternative operators are able to provide to customers both access and traffic services and to produce a single bill covering both services.

WTTX (Wireless To The X)

WTTx is a 4G and 4.5G-based broadband access solution, which uses wireless to provide fiber-like broadband access for household.

xDSL (Digital Subscriber Line)

It is a technology that makes use of standard telephone lines and it includes different categories including ADSL (Asymmetric DSL), HDSL (High-data-rate DSL), VDSL (Very high bit rate DSL) and eVDSL (enhanced Very high bit rate DSL). This technology uses a digital signal at very high frequencies in order to achieve high data transfer rates.

XR (eXtended Reality)

Extension of reality through devices that enable AR, VR, MR and all their combinations.

USEFUL INFORMATION

The 2022 Annual Financial Report is available online at gruppotim.it/report/ita and gruppotim.it/report/eng.

The Annual Corporate Governance Report and the Remuneration Report can be viewed by respectively accessing: gruppotim.it/governance/il-sistema/relazione-annuale and gruppotim.it/governance/remunerazione/relazione-remunerazione.

Information on TIM is also available at gruppotim.it and information on products and services at tim.it.

Finally, the following numbers are available:

Free Number 800.020.220 (for calls from Italy) or +39 011 2293603 (for calls from abroad) available for information and assistance to shareholders

+39 3688 2500 or investor_relations@telecomitalia.it

TIM S.p.A.

Registered Office in Milan - Via Gaetano Negri 1

General Administration and Secondary Office in Rome - Corso d'Italia 41

PEC (Certified Electronic Mail) box: telecomitalia@pec.telecomitalia.it

Share Capital 11,677,002,855.10 euros, fully paid up

Tax Code/VAT No. and Milan-Monza Brianza-Lodi Business Register No. 00488410010