2018

TIM Group

Key operating and financial data
(comparable data)

REVENUES 19,109 Millions of Euros

EBITDA

7,713 Millions of Euros

EBITDA MARGIN

organic excluding non recurrent 42.4%

ADJUSTED NET FINANCIAL DEBT

25,270 Millions of Euros

CAPITAL EXPENDITURES & SPECTRUM

6,558 Millions of Euros

HEADCOUNT ITALY

48,005 numbers

HEADCOUNT OUTSIDE ITALY

9,896 numbers

HEADCOUNT AT YEAR END

57,901 numbers

KEY OPERATING AND FINANCIAL DATA - TIM GROUP

Consolidated operating and financial data (*)

(millions of euros)		2018	2017	2016	2015	2014
Revenues		18,940	19,828	19,025	19,719	21,574
EBITDA	(1)	7,403	7,790	8,002	7,006	8,785
EBIT before goodwill impairment loss		3,151	3,291	3,722	3,203	4,529
Goodwill impairment loss		(2,590)	–	–	(240)	–
EBIT	(1)	561	3,291	3,722	2,963	4,529
Profit (loss) before tax from continuing operations		(777)	1,777	2,799	453	2,350
Profit (loss) from continuing operations		(1,152)	1,287	1,919	50	1,420
Profit (loss) from Discontinued operations/Non-current assets held for sale		–	–	47	611	541
Profit (loss) for the year		(1,152)	1,287	1,966	661	1,961
Profit (loss) for the year attributable to Owners of the Parent		(1,411)	1,121	1,808	(70)	1,351
Spectrum & capital expenditures		6,408	5,701	4,876	5,197	4,984

Consolidated financial position data(*)

(millions of euros)		12/31/2018	12/31/2017	12/31/2016	12/31/2015	12/31/2014
Total Assets		65,619	68,783	70,446	71,268	71,596
Total Equity		21,747	23,783	23,553	21,249	21,584
- attributable to Owners of the Parent		19,528	21,557	21,207	17,554	18,068
- attributable to non-controlling interests		2,219	2,226	2,346	3,695	3,516
Total Liabilities		43,872	45,000	46,893	50,019	50,012
Total Equity and Liabilities		65,619	68,783	70,446	71,268	71,596
Share capital		11,587	11,587	11,587	10,650	10,634
Net financial debt carrying amount	(1)	25,995	26,091	25,955	28,475	28,021
Adjusted net financial debt	(1)	25,270	25,308	25,119	27,278	26,651
Adjusted net invested capital	(2)	47,017	49,091	48,672	48,527	48,235
Debt Ratio (Adjusted net financial debt/Adjusted net invested capital)		53.7%	51.6%	51.6%	56.2%	55.3%

Consolidated profit ratios(*)

		2018	2017	2016	2015	2014
EBITDA/Revenues	(1)	39.1%	39.3%	42.1%	35.5%	40.7%
EBIT/Revenues (ROS)	(1)	3.0%	16.6%	19.6%	15.0%	21.0%
Adjusted Net Financial Debt/EBITDA	(1)	3.4	3.2	3.1	3.9	3.0

(*) Since January 1, 2018, the TIM Group has adopted: the IFRS 9 accounting standard (Financial Instruments) retrospectively - using the specific exemptions in the standard and without restating comparative figures of previous periods - and the IFRS 15 accounting standard (Revenue from contracts with customers), using the modified retrospective method. Consequently, operating and financial data of previous years have not been restated. In addition, 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. Further details are provided in the Note "Accounting Policies" to the Consolidated Financial Statements at December 31, 2018 of the TIM Group.

(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)	12/31/2018	12/31/2017	12/31/2016	12/31/2015	12/31/2014
Headcount (excluding headcount relating to Discontinued operations/Non-current assets held for sale)	57,901	59,429	61,229	65,867	66,025
Headcount relating to Discontinued operations/Non-current assets held for sale	–	–	–	16,228	16,420

Headcount, average number in the Group(1)

(equivalent number)	2018	2017	2016	2015	2014
Headcount (excluding headcount relating to Discontinued operations/Non-current assets held for sale)	54,423	54,946	57,855	61,553	59,285
Headcount relating to Discontinued operations/Non-current assets held for sale	–	–	2,581	15,465	15,652

Financial performance measures

TIM S.p.A.

(euros)		2018	2017	2016
Share prices (December average)				
- Ordinary		0.55	0.73	0.79
- Savings		0.47	0.60	0.64
Dividends per share	(2)			
- Ordinary		–	–	–
- Savings		0.0275	0.0275	0.0275
Pay Out Ratio	(2) (*)	13%	9%	10%
Market capitalization (in million euros)		11,153	14,779	15,901
Market to Book Value	(**)	0.61	0.74	0.84
Dividend Yield (based on December average)	(2) (***)			
- Ordinary		-	–	–
- Savings		5.86%	4.55%	4.27%

TIM Group

(euros)	2018	2017	2016
Basic earnings per share - ordinary shares	(0.07)	0.05	0.08
Basic earnings per share – savings shares	(0.07)	0.06	0.09
Diluted earnings per share - ordinary shares	(0.06)	0.05	0.08
Diluted earnings per share – savings shares	(0.06)	0.06	0.09

(1) Includes employees with temp work contracts.
(2) For 2018, the ratio was calculated on the basis of the proposed resolutions submitted to the shareholders' meeting held on March 29, 2019. 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, 2018).
(*) Dividends paid in the following year/Profit for the year.
(**) Capitalization/Equity of TIM S.p.A..
(***) Dividends per share/Share prices.

ADOPTION OF THE NEW IFRS 9 AND IFRS 15 STANDARDS

On November 22, 2016, Regulation (EU) No. 2016/2067 was issued, which adopted IFRS 9 (*Financial Instruments*) at EU level, relating to the classification, measurement, derecognition and impairment of financial assets and liabilities, and hedge accounting.
As allowed by the accounting standard, the Tim Group:

- did not restate the comparative information provided in the year of first application, also due to the complexity of reformulating values at the beginning of the first year presented without the use of factors known later; therefore, the effects deriving from the first application of IFRS 9 were recognized in equity at January 1, 2018;
- decided to continue to apply the hedge accounting provisions contained in IAS 39 instead of those of IFRS 9.

The different classification of financial assets had no substantial impact for the TIM Group on the measurement of those assets, while the introduction of the *expected credit loss* model replacing the *incurred loss* model required by IAS 39, resulted in a reduction of 107 million euros in consolidated equity at the transition date of January 1, 2018.

On September 22, 2016, Commission Regulation (EU) No. 2016/1905 was issued, which adopted IFRS 15 (*Revenues from contracts with customers*) and the related amendments at EU level. On October 31, 2017, clarifications to IFRS 15 were adopted through Commission Regulation (EU) No. 2017/1987.
IFRS 15 replaces the standards that formerly governed revenue recognition, namely IAS 18 (*Revenue*), IAS 11 (*Construction contracts*) and the related interpretations on revenue recognition (IFRIC 13 *Customer loyalty programmes*, IFRIC 15 *Agreements for the construction of real estate*, IFRIC 18 *Transfers of assets from customers* and SIC 31 *Revenue – Barter transactions involving advertising services*).
The TIM Group has applied the modified retrospective method with the recognition of the cumulative effect of the first-time application of the standard as an adjustment to the opening balance of equity for the period when the standard is adopted, without restating prior periods.
The comprehensive net impact (including tax effects) of the adoption of IFRS 15 on consolidated equity at January 1, 2018 (transition date) was positive for 19 million euros and mainly connected with the combined effects of:

- the change in the types of contract costs that are deferred;
- the new approach to recognizing activation and installation revenues and the recognition of contract assets connected with the earlier recognition of revenues from bundle offers.

Further details are provided in the Note "Accounting Policies" to the Consolidated Financial Statements at December 31, 2018 of the TIM Group.

To enable the year-on-year comparison of the economic and financial performance for the year 2018, this Report on Operations also shows "comparable" financial position figures and "comparable" income statement figures, prepared in accordance with the previous accounting standards applied (IAS 39, IAS 18, IAS 11, and relative Interpretations).

FINANCIAL AND NON-FINANCIAL HIGHLIGHTS

In terms of economic and financial performance in 2018:

- **Consolidated revenues** amounted to 18,940 million euros; comparable consolidated revenues amounted to 19,109 million euros, showing a drop of 3.6% compared to 2017, mainly due to the effects of the major depreciation of the Brazilian real, which lowered the contribution of the Brazil Business Unit to consolidated revenues, which are denominated in euros; in organic terms the Group's consolidated revenues increased by 0.1%.
  Consolidated revenues for the fourth quarter of 2018 amounted to 4,863 million euros. The comparable figure (4,892 million euros) shows a drop of 5.0% (-2.5% in organic terms).

- **EBITDA** was equal to 7,403 million euros; Comparable EBITDA amounted to 7,713 million euros, down by 1.0% on 2017 (+2.6% in organic terms), with an EBITDA margin of 40.4%, +1.1 percentage points on the figure for 2017 (40.4% in organic terms, +1.0 percentage points).
  EBITDA for 2018 reflected a negative impact totaling 408 million euros relative to non-recurring net expenses.
  EBITDA for 2017 reflected non-recurring expenses for a total of 883 million euros.
  In the absence of these impacts, organic EBITDA would have been equal to 8,121 million euros, down by 3.4% over 2017, with an EBITDA margin of 42.4% (-1.6 percentage points).
  EBITDA for the fourth quarter of 2018 amounted to 1,625 million euros. Comparable EBITDA amounted to 1,683 million euros, up by 6.7 million euros compared to the fourth quarter of 2017 (+10.9% in organic terms).

- **EBIT** amounted to 561 million euros; comparable EBIT amounted to 727 million euros, down -77.9% on 2017 (-77.3% in organic terms).
  The EBIT was pulled down by 2,590 million euros relating to the goodwill impairment loss attributed to the Core Domestic Unit and International Wholesale: specifically, as at September 30, 2018, a goodwill impairment loss of 2.0 billion euros was recognized for the goodwill assigned to the Core Domestic Unit; during preparation of the annual financial statements, the impairment test was repeated and an additional impairment loss of 450 million euros for the Core Domestic Unit was recognized - bringing the overall impairment loss for 2018 to 2,450 million euros - as well as an impairment loss of 140 million euros for the goodwill assigned to International Wholesale.
  Excluding this impairment loss as well as the negative impact of non-recurring net expenses totaling 408 million euros (912 million euros in 2017, at constant exchange rates), the change in EBIT would have been -9.5%.
  Consolidated EBIT for the fourth quarter of 2018 amounted to -56 million euros. Comparable EBIT amounted to -35 million euros (457 million euros in the fourth quarter of 2017).

- **Consolidated net loss for the year attributable to Owners of the Parent** amounted to 1,411 million euros (while a net profit of 1,121 million euros was posted in 2017). The positive contribution from operating activities and the recognition of deferred tax assets in Brazil was offset by the aforementioned goodwill impairment loss of the Core Domestic Unit and International Wholesale, as well as other non-recurring net expenses and the effects of IFRS 9 and 15 application. Excluding those impacts, consolidated net profit for 2018 attributable to Owners of the Parent would have amounted to over 1.4 billion euros.

- **Capital expenditures** in 2018 amounted to 6,408 million euros. On a comparable basis, they amounted to 6,558 million euros (5,701 million euros in 2017), showing an increase of 857 million euros. In particular, the increase deriving from higher investments in mobile phone licenses - and in particular the purchase by the Domestic Business Unit in the last quarter of 2018 of the rights to use 5G frequencies (2,399 million euros) - was offset by lower capital expenditures in fixed and mobile domestic networks, also due to the coverage levels achieved with current technology, as well as the fluctuations in Brazilian exchange rates.

- **Adjusted net financial debt** amounted to 25,270 million euros at December 31, 2018, a decrease of 38 million euros compared December 31, 2017 (25,308 million euros): cash flow generation from operations and financing activities in 2018 was affected by the payment of 739 million euros of income taxes, 477 million euros relative to the portion of the award amount due for 2018 for rights to use 3700-3800 MHZ and 26.5-27.5 GHZ frequencies in Italy and the payment of dividends for a total of 256 million euros.

Financial highlights for the year

(millions of euros)		2018	2018 comparable (a)	2017 (b)	% Change (a-b)	Organic
Revenues		**18,940**	**19,109**	**19,828**	(3.6)	0.1
EBITDA	(1)	**7,403**	**7,713**	**7,790**	(1.0)	2.6
EBITDA Margin		*39.1%*	*40.4%*	*39.3%*	*1.1pp*	
Organic EBITDA Margin		*39.1%*	*40.4%*	*39.4%*	*1.0pp*	
EBIT before goodwill impairment loss		**3,151**	**3,317**	**3,291**	0.8	
Goodwill impairment loss		*(2,590)*	*(2,590)*	–		
EBIT	(1)	**561**	**727**	**3,291**	(77.9)	(77.3)
EBIT Margin		*3.0%*	*3.8%*	*16.6%*	*(12.8)pp*	
Organic EBIT Margin		*3.0%*	*3.8%*	*16.8%*	*(13.0)pp*	
Profit (loss) for the year attributable to Owners of the Parent		**(1,411)**	**(1,298)**	**1,121**	-	
Capital expenditures & spectrum		**6,408**	**6,558**	**5,701**	15.0	
		12/31/2018		**12/31/2017**	**Change Amount**	
Adjusted net financial debt	(1)	**25,270**		**25,308**	**(38)**	

(1) Details are provided under “Alternative Performance Measures”.

Financial highlights for the fourth quarter

(millions of euros)		4th Quarter 2018	4th Quarter 2018 comparable (a)	4th Quarter 2017 (b)	% Change (a-b)	Organic
Revenues		**4,863**	**4,892**	**5,149**	(5.0)	(2.5)
EBITDA	(1)	**1,625**	**1,683**	**1,577**	6.7	10.9
EBITDA Margin		*33.4%*	*34.4%*	*30.6%*	*3.8pp*	
Organic EBITDA Margin		*33.4%*	*34.4%*	*30.3%*	*4.1pp*	
EBIT before goodwill impairment loss		**534**	**555**	**457**	21.4	
Goodwill impairment loss		*(590)*	*(590)*	-		
EBIT	(1)	**(56)**	**(35)**	**457**	-	-
EBIT Margin		*(1.2)%*	*(0.7)%*	*8.9%*	*(9.6)pp*	
Organic EBIT Margin		*(1.2)%*	*(0.7)%*	*8.6%*	*(9.3)pp*	
Profit (loss) for the period attributable to owners of the Parent		**(543)**	**(528)**	**88**	–	

(1) Details are provided under “Alternative Performance Measures”.

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The obligations laid down in Legislative Decree 254/2016, regarding the disclosure of sensitive information of a non-financial nature and on diversity, have been the object of reporting by TIM Group since 1997, the year in which the Group published its first “Social Report”, subsequently extended to cover environmental issues.
The current Sustainability Report follows a multi-stakeholder approach involving the joint analysis of actions taken in respect of the main stakeholders with whom the Company interacts. It is based on the main reference standard for Sustainability Reporting and on the principles (inclusivity, materiality, responsiveness) of the AA1000 AccountAbility Principles Standard (APS 2008), adopted by the Group as of the 2009 Financial Statements.
The 2018 materiality matrix, which summarizes the point of view of the Company and stakeholders, also identified the Sustainable Development Goals which the Group considers it can significantly contribute to, through its own operations.
Such non-financial reporting stands alongside the company’s positioning in major sustainability indices, which in 2018 saw the TIM Group included, for the 15th consecutive year, in the Dow Jones Sustainability Indices World (DJSI World) and Europe (DJSI Europe), and its inclusion in the Euronext Vigeo World 120, Eurozone 120 and Europe 120 indices.
For more details of TIM's approach to sustainability and results achieved, see the 2018 Sustainability Report - Non-Financial Disclosure.

Non-recurring events - other one-off items

In the years 2018 and 2017, 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. Such expenses include the goodwill impairment loss, corporate restructuring and reorganization expenses, expenses resulting from regulatory disputes and sanctions and the liabilities related to those expenses, expenses for disputes with former employees, and liabilities with customers and/or suppliers, as well as items related to adjustments relative to previous years.
In detail:

(millions of euros) **Non-recurring expenses (Income)**	**2018**	**2017**
Revenues		
Adjustments of revenues from previous years	62	-
Other income		
Effect of Brazil BU tax recovery	(37)	-
Acquisition of goods and services and Change in inventories		
Expenses related to agreements and the development of non-recurring projects	15	10
Employee benefits expenses		
Expenses related to restructuring and rationalization and other expenses	233	697
Sundry expenses and provisions		
Expenses related to disputes and regulatory penalties and liabilities related to those expenses, and expenses related to disputes with former employees and liabilities with customers and/or suppliers	135	176
Impact on EBITDA	**408**	**883**
Goodwill impairment loss on Core Domestic and International Wholesale	2,590	-
Impairment losses on intangible assets	-	30
Impact on EBIT	**2,998**	**913**

Non-recurring net expenses in 2018 included:

- the goodwill impairment loss attributed to the Core Domestic unit and International Wholesale (2,590 million euros);
- expenses related to company restructuring processes (233 million euros);
- sundry expenses for 135 million euros including provisions to cover a fine of 74.3 million euros levied for alleged infringement of Article 2 of Italian Decree Law 21 of March 15, 2012 (the "Golden Power" rule) under a ruling of May 8, 2018. TIM lodged an appeal with the Lazio Regional Administrative Court (TAR), requesting the precautionary suspension of the decision. In July 2018, the TAR granted the application and suspended payment of the fine, setting a date for the appeal to be heard;
- the adjustment of some contractual liabilities in order to align them with their estimated period end value. Specifically, liabilities relative to "prepaid" contracts were adjusted by a total of 62 million euros, wholly attributable to previous financial years;
- the positive effect of the Brazil Business Unit tax recovery, equal to 37 million euros, following the favorable outcome of the tax dispute relative to the unconstitutional grounds of the law that entailed the inclusion of ICMS indirect tax in the base for calculating taxes on PIS and COFINS revenues.

Non-recurring expenses in 2017 chiefly included provisions for the start-up of the company restructuring plan of TIM S.p.A..

For comparative purposes only and to provide a better understanding of business performance in the reporting period, besides non-recurring transactions, "one-off" items are highlighted which, by their nature, are not linear or recurring, in the reporting period or the comparative period. Such above-mentioned items exclusively pertain to the Domestic market, are not subject to auditing and are produced for explanatory purposes only.
In 2017, positive one-off items for a total of 112 million euros were posted, relative to the differential impact arising from the revised estimate of the settlement value of some contractual liabilities with customers and suppliers.

CONSOLIDATED OPERATING PERFORMANCE

Revenues

Revenues amounted to 18,940 million euros in 2018.

Comparable revenues on the same accounting basis amounted to 19,109 million euros, down by 3.6% (-719 million euros) on 2017 (19,828 million euros); the decrease is mainly attributable to the Brazil Business Unit (-543 million euros), due to the depreciation of the Brazilian real of approximately 20% compared to 2017, and the Domestic Business Unit (-169 million euros). Without the negative exchange rate effect[1], the Brazil Business Unit saw growth of +189 million euros (+5.0%) and the organic change in consolidated revenues for the Group was up by 0.1% (+27 million euros).
Revenues for 2018 include a non-recurring adjustment of -62 million euros relating to previous financial years.

The breakdown of revenues on the same accounting basis for 2018 by operating segment is shown below, with comparative data provided for 2017.

(millions of euros)	2018 comparable		2017		Change		
		% of total		% of total	amount	%	% organic
Domestic	15,185	79.5	15,354	77.4	(169)	(1.1)	(1.0)
Core Domestic	*14,161*	*74.1*	*14,249*	*71.9*	*(88)*	*(0.6)*	*(0.6)*
International Wholesale	*1,272*	*6.7*	*1,349*	*6.8*	*(77)*	*(5.7)*	*(4.7)*
Brazil	3,959	20.7	4,502	22.7	(543)	(12.1)	5.0
Other Operations	–	–	–	–	–		
Adjustments and eliminations	(35)	(0.2)	(28)	(0.1)	(7)		
Consolidated Total	**19,109**	**100.0**	**19,828**	**100.0**	**(719)**	**(3.6)**	**0.1**

EBITDA

EBITDA amounted to 7,403 million euros for 2018.

Comparable EBITDA for 2018 totaled 7,713 million euros (7,790 million euros in 2017), showing a drop of 77 million euros (-1.0%); the EBITDA margin stood at 40.4% (39.3% in 2017; +1.1 percentage points).

Organic EBITDA rose by 192 million euros (+2.6%) compared to 2017, with the organic EBITDA margin posting an increase of 1.0 percentage points, from 39.4% in 2017 to 40.4% in 2018.
Organic EBITDA, net of the non-recurring component, amounted to 8,121 million euros (8,404 million euros in 2017). Specifically EBITDA for 2018 reflected a negative impact totaling 408 million euros referring to non-recurring expenses as already described.

For further details, see the Note "Non-recurring events and transactions" in the Consolidated Financial Statements as at December 31, 2018 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 1.18121 in 2018 and 1.12946 in 2017 for the US dollar. For the Brazilian real, the average exchange rates used were 4.30628 in 2018 and 3.60584 in 2017. 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 is calculated as follows:

(millions of euros)	2018	2017	Change amount	Change %
REPORTED EBITDA	**7,403**			
Effect of adoption of new accounting standards	310			
COMPARABLE EBITDA – on the same accounting basis	**7,713**	**7,790**	**(77)**	**(1.0)**
Foreign currency financial statements translation effect		(269)	269	
Changes in the scope of consolidation		–	–	
ORGANIC EBITDA	**7,713**	**7,521**	**192**	**2.6**
of which non-recurring income/(expenses)	(408)	(883)	475	
Foreign currency translation effect on Non-recurring Income/(Expenses)		–	–	
ORGANIC EBITDA, excluding Non-recurring items	**8,121**	**8,404**	**(283)**	**(3.4)**

Exchange rate fluctuations mainly related to the Brazil Business Unit.
In 2017, EBITDA also reflected some one-off items for a total of 112 million euros, relative to the differential impact arising from the revised estimate of the settlement value of some contractual liabilities with customers and suppliers.

The breakdown of comparable EBITDA, on the same accounting basis, by operating segment for 2018 compared to 2017 is shown below, together with the EBITDA margin.

(millions of euros)	2018 comparable	% of total	2017	% of total	Change amount	Change %	Change % organic
Domestic	6,221	80.6	6,171	79.2	50	0.8	0.9
EBITDA Margin	*41.0*		*40.2*			*0.8 pp*	*0.8 pp*
Brazil	1,511	19.6	1,635	21.0	(124)	(7.6)	10.4
EBITDA Margin	*38.2*		*36.3*			*1.9 pp*	*1.9 pp*
Other Operations	(19)	(0.2)	(16)	(0.2)	(3)		
Adjustments and eliminations	–	–	–	–	–		
Consolidated Total	**7,713**	**100.0**	**7,790**	**100.0**	**(77)**	**(1.0)**	**2.6**
EBITDA Margin	*40.4*		*39.3*			*1.1 pp*	*1.0 pp*

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

- **Acquisition of goods and services (8,186 million euros; 8,089 million euros on comparable basis; 8,388 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Acquisition of goods	1,957	1,863	94
Revenues due to other TLC operators and costs for telecommunications network access services	1,913	2,073	(160)
Commercial and advertising costs	1,306	1,386	(80)
Power, maintenance and outsourced services	1,101	1,220	(119)
Rent and leases	607	645	(38)
Other service expenses	1,205	1,201	4
Total acquisition of goods and services	**8,089**	**8,388**	**(299)**
EBITDA Margin	*42.3*	*42.3*	*0.0 pp*

The drop essentially referred to the Brazil Business Unit for -347 million euros and was mainly driven by the negative exchange rate effect for 353 million euros. Excluding that effect, the item would have been positive and equal to approximately 6 million euros.

- **Employee benefits expenses (3,105 million euros; 3,084 million euros on comparable basis; 3,626 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Employee benefits expenses - Italy	**2,744**	**3,248**	**(504)**
Ordinary employee expenses and costs	2,520	2,551	(31)
Restructuring and other expenses	224	697	(473)
Employee benefits expenses – Outside Italy	**340**	**378**	**(38)**
Ordinary employee expenses and costs	331	378	(47)
Restructuring and other expenses	9	-	9
Total employee benefits expenses	**3,084**	**3,626**	**(542)**
EBITDA Margin	*16.1*	*18.3*	*(2.2)pp*

The net decrease of 542 million euros was mainly driven by:

- the decrease of 473 million euros for restructuring expenses and allocations to employee and other provisions of the Italian component. Specifically, a plan was launched at the end of 2017 for executive and non-executive staff to adopt, among others, Article 4(1–7-ter) of Law 92 of June 28, 2012 (the "Fornero Law", which provides for early retirement arrangements). During 2018, Plan take-up was greater than initially forecast, while Decree Law 4 of January 28, 2019, which introduced significant changes in social security, allows wider accessibility in terms of recourse to assisted pensions. Therefore, estimates for staff leaving in 2019-2020 were revised, with additional non-recurring provisions being allocated for a total of 204 million euros; In 2017, provisions were already set aside for non-recurring expenses totaling 697 million euros;
- lower ordinary employee expenses for the Italian component, which fell by 31 million euros, mainly due to the benefits delivered by the reduction of the average salaried workforce by -1,447 employees (excluding the component relating to the solidarity agreement), which only in part were offset by the termination, at the start of 2018, of the "defensive solidarity" agreements applied by TIM S.p.A.. The solidarity agreement was renewed in June 2018 for a further 12 months;
- the decrease of 47 million euros in the component outside Italy of ordinary employee expenses, mainly due to the balance between the impact of the change in exchange rates and local remuneration dynamics of the Brazil Business Unit.

- **Other operating income (341 million euros; 341 million euros on comparable basis; 523 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Late payment fees charged for telephone services	60	59	1
Recovery of employee benefit expenses, purchases and services rendered	27	22	5
Capital and operating grants	39	51	(12)
Damages, penalties and recoveries connected with litigation	29	40	(11)
Partnership agreements and other arrangements with suppliers	22	129	(107)
Estimate revisions and other adjustments	73	188	(115)
Other	91	34	57
Total	**341**	**523**	**(182)**

Other operating income includes, *inter alia* :

- contribution fees resulting from partnership agreements and other agreements with suppliers, designed to develop collaboration, in order to strengthen and stabilize industrial, commercial and real estate relations over time;
- the non-recurrent item of 37 million euros recorded in 2018 by the Brazil Business Unit and concerning the positive effect of the tax recovery following the favorable outcome of the tax dispute relative to the unconstitutional grounds of the law that entailed the inclusion of ICMS indirect tax in the base for calculating taxes on PIS and COFINS revenues;
- positive one-off items for a total of 112 million euros in 2017, relative to the differential impact arising from the revised estimate of the settlement value of some contractual liabilities with customers and suppliers.

- **Other operating expenses (1,259 million euros; 1,236 million euros on comparable basis; 1,208 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Write-downs and expenses in connection with credit management	495	400	95
Provision charges	189	228	(39)
TLC operating fees and charges	286	356	(70)
Indirect duties and taxes	125	111	14
Penalties, settlement compensation and administrative fines	73	33	40
Association dues and fees, donations, scholarships and traineeships	12	15	(3)
Other	56	65	(9)
Total	**1,236**	**1,208**	**28**

Other operating expenses included a non-recurring component of 135 million euros (176 million euros in 2017), 108 million euros relative to the Domestic Business Unit, mainly referred to the fine levied on May 8, 2018 in application of the "Golden Power" rule (Italian Decree Law no. 21 of 15/3/2012) and 27 million euros to the Brazil Business Unit for expenses concerning litigation.

Depreciation and amortization

Depreciation and amortization amounted to 4,255 million euros.
On the same accounting basis, depreciation and amortization amounted to 4,399 million euros, breaking down as follows.

(millions of euros)	2018 comparable	2017	Change
Amortization of intangible assets with a finite useful life	1,743	1,793	(50)
Depreciation of property, plant and equipment – owned and leased	2,656	2,680	(24)
Total	**4,399**	**4,473**	**(74)**

Net impairment losses on non-current assets

This item amounted to 2,586 million euros in 2018 and mainly refers to the overall goodwill impairment loss of 2,590 million euros, recognized during the year and related to the Domestic Business Unit.

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. At September 30, 2018, with reference to the Core Domestic CGU, internal and external events and circumstances had arisen that led the company to carry out impairment testing on the CGU and brought a recognition of an Impairment loss relative for an amount of 2,000 million euros.

In the 2018 Financial Statements, the annual impairment test resulted in an additional impairment loss of 450 million euros on the goodwill attributed to the Core Domestic CGU - bringing the total impairment loss for the financial year 2018 to 2,450 million euros - as well as an impairment loss of 140 million euros on the goodwill attributed to the International Wholesale CGU.

With reference to the Brazil Cash Generating Units, the Impairment test exercise did not show any impairment losses to the Goodwill allocated to the said CGUs.

In 2017, net impairment losses on non-current assets amounted to 37 million euros and mainly consisted of write-downs of intangible assets.

Further details are provided in the Note "Goodwill" to the Consolidated Financial Statements at December 31, 2018 of the TIM Group.

EBIT

EBIT amounted to 561 million euros for 2018.

Comparable EBIT for 2018 totaled 727 million euros (3,291 million euros for 2017), a drop of 2,564 million euros (-77.9%) compared to 2017; the EBIT margin stood at 3.8% (16.6% in 2017).

Organic EBIT was down by 2,476 million euros (-77.3%), with an organic EBIT margin of 3.8% (16.8% in 2017). Organic EBIT, net of the non-recurring component, amounted to 3,725 million euros (4,115 million euros in 2017), with an EBIT margin of 19.4% (21.6% in 2017).
EBIT for 2018 reflected the negative impact of non-recurring net expenses, including the aforesaid impairment loss on goodwill of the Core Domestic unit and International Wholesale totaling 2,998 million euros (912 million euros in 2017, at constant exchange rates).

Organic EBIT is calculated as follows:

(millions of euros)	2018	2017	Change	
			amount	%
REPORTED EBIT	**561**			
Effect of adoption of new accounting standards	166			
COMPARABLE EBIT – on the same accounting basis	**727**	**3,291**	**(2,564)**	**(77.9)**
Foreign currency financial statements translation effect		(88)	88	
Changes in the scope of consolidation		–	–	
ORGANIC EBIT	**727**	**3,203**	**(2,476)**	**(77.3)**
of which non-recurring income/(expenses)	(2,998)	(913)	(2,085)	
Foreign currency translation effect on Non-recurring Income/(Expenses)		1	(1)	
ORGANIC EBIT, excluding Non-recurring items	**3,725**	**4,115**	**(390)**	**(9.5)**

Exchange rate fluctuations mainly related to the Brazil Business Unit.

Income/(expenses) from investments

In 2018, this item showed a positive figure of 10 million euros and mainly included the dividends paid to TIM S.p.A. by the company Emittenti Titoli.
In 2017, this item amounted to an expense of 18 million euros and essentially included the allocation to the income statement of the Reserve for exchange differences on translating foreign operations for the investee company Tierra Argentea S.A., the liquidation of which was completed that year.

Finance income (expenses), net

Finance income (expenses) show a net expense of 1,348 million euros (expense of 1,495 million euros in 2017): the improvement was mainly driven by lower finance expenses, connected to the reduction in the Group's average debt exposure and a drop in interest rates from the refinancing operations carried out over the last 12/18 months.

Income tax expense

This item amounted to 375 million euros, a drop of 115 million euros on 2017 (490 million euros). Specifically, the figure for 2018 benefited from approximately 200 million euros contributed by the Brazil Business Unit, from the recognition of deferred tax assets related to the tax recoverability of past losses recorded in previous years that had become recoverable based on the expected profits. This impact was offset by the Parent TIM S.p.A.'s higher taxes, in relation to the impact of certain items in the 2018 financial year which have no tax relevance (mainly driven by the goodwill impairment loss and other non-deductible sundry expenses and minor benefits).

Profit (loss) for the year

This item breaks down as follows:

(millions of euros)	2018	2018 comparable	2017
Profit (loss) for the year	**(1,152)**	**(1,038)**	**1,287**
Attributable to:			
Owners of the Parent:			
Profit (loss) from continuing operations	(1,411)	(1,298)	1,121
Profit (loss) from Discontinued operations/Non-current assets held for sale	–	–	–
Profit (loss) for the year attributable to Owners of the Parent	**(1,411)**	**(1,298)**	**1,121**
Non-controlling interests:			
Profit (loss) from continuing operations	259	260	166
Profit (loss) from Discontinued operations/Non-current assets held for sale	–	–	–
Profit (loss) for the year attributable to Non-controlling interests	**259**	**260**	**166**

The net loss for 2018 attributable to Owners of the Parent amounted to 1,411 million euros (while a net profit of 1,121 million euros was posted in 2017). The positive contribution from operating activities and the recognition of deferred tax assets in Brazil was offset by the aforementioned goodwill impairment loss of the Core Domestic Unit and International Wholesale, as well as other non-recurring net expenses and the effects of IFRS 9 and 15 application. Excluding those impacts, consolidated net profit for 2018 attributable to Owners of the Parent would have amounted to over 1.4 billion euros.

2018

Business Unit

Key operating and financial data (comparable data)

DOMESTIC

REVENUES

15,185 Millions of Euros

EBITDA

6,221 Millions of Euros

EBITDA MARGIN

43.5%

organic excluding non recurrent

FIXED

PHISICAL ACCESSES

end of period

18,212 thousands

BROADBAND ACCESSES

end of period

11,184 thousands

NETWORK INFRASTRUCTURE IN ITALY

access and carrier network in optical fiber

16.4 millions of Km

MOBILE

LINES

end of period

31,818 thousands

BROWSING TRAFFIC

end of period

686.8 Pbyte

AVERAGE MONTHLY REVENUES

per line – ARPU

11.5 Euros

BRAZIL

REVENUES

3,959 Millions of Euros

LINES

55,923 thousands

EBITDA

1,511 Millions of Euros

EBITDA MARGIN

38.2%

organic excluding non recurrent

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

DOMESTIC

(millions of euros)	2018	2018 comparable (a)	2017 (b)	Change (a-b) amount	%	% organic
Revenues	15,031	15,185	15,354	(169)	(1.1)	(1.0)
EBITDA	5,955	6,221	6,171	50	0.8	0.9
EBITDA Margin	*39.6*	*41.0*	*40.2*		*0.8 pp*	*0.8 pp*
EBIT	16	177	2,772	(2,595)	(93.6)	(93.6)
EBIT Margin	*0.1*	*1.2*	*18.1*		*(16.9)pp*	*(16.9)pp*
Headcount at year end (number)	48,200		49,851	(1,651)	(3.3)	

(millions of euros)	4th Quarter 2018	4th Quarter 2018 comparable (a)	4th Quarter 2017 (b)	Change (a-b) amount	%	% organic
Revenues	3,849	3,874	4,042	(168)	(4.2)	(4.2)
EBITDA	1,216	1,263	1,116	147	13.2	13.1
EBITDA Margin	*31.6*	*32.6*	*27.6*		*5.0 pp*	*5.0 pp*
EBIT	(235)	(216)	265	(481)	–	–
EBIT Margin	*(6.1)*	*(5.6)*	*6.6*		*(12.2)pp*	*(12.2)pp*

Fixed

	12/31/2018	12/31/2017	12/31/2016
Physical accesses at period end (thousands) (1)	18,212	18,995	18,963
of which retail physical accesses at period end (thousands)	*10,149*	*11,044*	*11,285*
Broadband accesses at period end (thousands) (2)	11,184	10,154	9,206
of which Retail broadband accesses at period end (thousands)	*7,575*	*7,641*	*7,191*
Network infrastructure in Italy:			
copper access network (millions of km – pair, distribution and connection)	114.4	114.6	114.4
access and carrier network in optical fiber (millions of km - fiber)	16.4	14.3	12.6
Total traffic:			
Minutes of traffic on fixed-line network (billions):	58.3	64.0	69.1
Domestic traffic	46.2	50.7	55.6
International traffic	12.1	13.3	13.5
Broadband volumes (PBytes) (3)	9,394	7,848	5,774

(1) Does not include full-infrastructured OLOs and Fixed Wireless Access (FWA).
(2) Does not include LLU and NAKED, satellite and full-infrastructured OLOs and FWA.
(3) DownStream and UpStream traffic volumes.

Mobile

	12/31/2018	12/31/2017	12/31/2016
Lines at period end (thousands) (1)	31,818	30,755	29,617
Change in lines (%)	3.5	3.8	(1.3)
Churn rate (%) (2)	26.3	26.2	22.8
Total traffic:			
Outgoing retail traffic (billions of minutes)	57.0	51.4	44.9
Incoming and outgoing retail traffic (billions of minutes)	85.4	78.1	69.6
Browsing traffic (PBytes) (3)	686.8	417.5	258.5
Average monthly revenues per line (in euros) – ARPU (4)	11.5	12.5	12.4

(1) The figure includes the SIM cards used on platforms for delivering Machine-to-Machine services.
(2) The data refer to total lines. The churn rate represents the number of mobile customers who discontinued service during the period expressed as a percentage of the average number of customers.
(3) National traffic excluding roaming.
(4) The values are calculated on the basis of revenues from services (including revenues from prepaid cards) as a percentage of the average number of lines.

Revenues

Revenues for 2018 amounted to 15,031 million euros. Comparable revenues on the same accounting basis amounted to 15,185 million euros for 2018, down by 169 million euros on the previous year (-1.1%). Revenues for 2018 include a non-recurring adjustment of -62 million euros relating to previous financial years.
In the fourth quarter, revenues recorded a drop of 168 million euros (-4.2% compared to the fourth quarter of the 2017).
The revenues from services amounted to 13,834 million euros (-166 million euros over 2017, equal to -1.2%), impacted by the effects of a changed regulatory and competitive scenario (30-day pricing restored, entry of a fourth mobile operator and a reduction in the prices of some wholesale services).
In detail:

- revenues from services for the fixed-line market amounted to 9,951 million euros, remaining stable with respect to 2017 despite stronger market competition. Such stabilization was due to higher retail ARPU, higher revenues from ICT solutions (+99 million euros compared to 2017, +14.8%) and from innovative services for data connectivity (+306 million euros, +14.4%), also driven by growth in Ultrabroadband customers (+1.0 million on 2017) that at the end of 2018 reached 3.2 million (5.4 million including wholesale lines). These dynamics offset the natural decline in revenues from traditional voice services (-334 million euros), due to the decrease in traditional accesses and lower regulated prices on some wholesale services (-65 million euros);
- revenues from services for the Mobile market were equal to 4,513 million euros (-142 million euros, equal to -3.1% on 2017) and were affected to a greater extent by the changed regulatory and competitive scenario, with a downturn in calling and broadband ARPU.

Revenues from product sales, including the change in work in progress, amounted to 1,351 million euros in 2018 (-3 million euros on the previous year).

EBITDA

EBITDA for the Domestic Business Unit for 2018 amounted to 5,955 million euros.
Comparable EBITDA for 2018 totaled 6,221 million euros, up by 50 million euros compared to 2017 (+0.8%), with an EBITDA margin of 41.0% (+0.8 percentage points compared to the previous year).
Organic EBITDA rose by 53 million euros (+0.9%) compared to 2017, with the organic EBITDA margin posting an increase of 0.8 percentage points, from 40.2% in 2017 to 41.0% in 2018.
Organic EBITDA, net of the non-recurring component, amounted to 6,629 million euros (7,050 million euros in 2017). Specifically EBITDA for 2018 reflected a negative impact totaling 408 million euros referring to non-recurring expenses as already described.

In the fourth quarter of 2018, organic EBITDA amounted to 1,263 million euros, showing an increase of 146 million euros (+13.1%) compared to the fourth quarter of 2017, with the EBITDA margin posting an increase of 5.0 percentage points, rising from 27.6% in the fourth quarter of 2017 to 32.6% for 2018.

Organic EBITDA is calculated as follows:

(millions of euros)	2018	2017	Change	
			amount	%
REPORTED EBITDA	**5,955**			
Effect of adoption of new accounting standards	266			
COMPARABLE EBITDA – on the same accounting basis	**6,221**	**6,171**	**50**	**0.8**
Foreign currency financial statements translation effect	–	(3)	3	
Changes in the scope of consolidation	–	–	–	
ORGANIC EBITDA	**6,221**	**6,168**	**53**	**0.9**
of which non-recurring income/(expenses)	(408)	(882)	474	
ORGANIC EBITDA - excluding Non-recurring items	**6,629**	**7,050**	**(421)**	**(6.0)**

In 2017, EBITDA also reflected some one-off items for a total of 112 million euros, relative to the differential impact arising from the revised estimate of the period end value of some contractual liabilities with customers and suppliers.

The changes in the main cost items, on the same accounting basis, are shown below:

(millions of euros)	2018 comparable	2017	Change
Acquisition of goods and services	6,289	6,235	54
Employee benefits expenses	2,761	3,266	(505)
Other operating expenses	742	704	38

In particular:

- **Acquisition of goods and services (6,360 million euros; 6,289 million euros on comparable basis; 6,235 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Acquisition of goods	1,733	1,628	105
Revenues due to other TLC operators and costs for telecommunications network access services	1,562	1,614	(52)
Commercial and advertising costs	792	751	41
Power, maintenance and outsourced services	876	949	(73)
Rent and leases	397	414	(17)
Other service expenses	929	879	50
Total acquisition of goods and services	**6,289**	**6,235**	**54**
% of Revenues	*41.4*	*40.6*	*0.8*

This item increased by 54 million euros compared to 2017. Costs for the acquisition of goods increased mainly due to higher purchasing volumes of equipment and handsets linked to the increase in product sales and to higher commercial and advertising costs, offset by a reduction in costs for energy and outsourced services, as a result of streamlining actions taken during the year.

- **Employee benefits expenses (2,781 million euros; 2,761 million euros on comparable basis; 3,266 million euros in 2017)**: went down by 505 million euros, driven chiefly by the same factors affecting the Italian employee benefits expenses component at Group level, to which readers are referred.

- **Other operating income (273 million euros; 273 million euros on comparable basis; 471 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Late payment fees charged for telephone services	49	48	1
Recovery of employee benefit expenses, purchases and services rendered	27	22	5
Capital and operating grants	33	44	(11)
Damages, penalties and recoveries connected with litigation	28	39	(11)
Partnership agreements and other arrangements with suppliers	22	97	(75)
Estimate revisions and other adjustments	75	192	(117)
Other income	39	29	10
Total	**273**	**471**	**(198)**

Other operating income includes, among others, contribution fees resulting from partnership agreements and other arrangements with suppliers designed to develop the collaboration between the parties, in order to strengthen and stabilize industrial, commercial and real estate relations over time. In the 2017 financial year, Other income included the aforementioned "one-off" items for a total amount of 112 million euros.

- **Other operating expenses (763 million euros; 742 million euros on comparable basis; 704 million euros in 2017):**

(millions of euros)	2018 comparable	2017	Change
Write-downs and expenses in connection with credit management	372	313	59
Provision charges	109	155	(46)
TLC operating fees and charges	48	55	(7)
Indirect duties and taxes	94	91	3
Penalties, settlement compensation and administrative fines	73	33	40
Association dues and fees, donations, scholarships and traineeships	11	13	(2)
Sundry expenses	35	44	(9)
Total	**742**	**704**	**38**

Other operating expenses include a non-recurring component of 108 million euros (176 million euros in the 2017 financial year), mainly referring to the fine imposed on May 8, 2018 in the application of Decree Law 21 of 3/15/2012 ("Golden Power rule"). The item also includes higher provision charges for bad debts (+10 million euros) compared to 2017 mainly attributable to difficulties and delays in collections from some South American and Mediterranean Basin operators.

EBIT

EBIT for the Domestic Business Unit for 2018 amounted to 16 million euros.
Comparable EBIT for 2018 totaled 177 million euros (2,772 million euros in 2017), showing a drop of 2,595 million euros, with the EBIT margin at 1.2% (18.1% in 2017).
Organic EBIT was down by 2,594 million euros.
Organic EBIT, net of the non-recurring component, amounted to 3,175 million euros (3,683 million euros in 2017), with an EBIT margin of 20.8% (24.0% in 2017).
EBIT for 2018 reflected the negative impact of non-recurring net expenses, including the aforesaid impairment loss on goodwill of the Core Domestic unit and International Wholesale totaling 2,998 million euros (912 million euros in 2017, at constant exchange rates).
Consolidated EBIT for the fourth quarter of 2018 amounted to -235 million euros; Comparable EBIT amounted to -216 million euros (265 million euros in the fourth quarter of 2017).

Organic EBIT is calculated as follows:

(millions of euros)	2018	2017	Change	
			amount	%
REPORTED EBIT	**16**			
Effect of adoption of new accounting standards	161			
COMPARABLE EBIT – on the same accounting basis	**177**	**2,772**	**(2,595)**	**(93.6)**
Foreign currency financial statements translation effect		(1)	1	
Changes in the scope of consolidation		–	–	
ORGANIC EBIT	**177**	**2,771**	**(2,594)**	**(93.6)**
of which non-recurring income/(expenses)	(2,998)	(912)	(2,086)	
ORGANIC EBIT, excluding Non-recurring items	**3,175**	**3,683**	**(508)**	**(13.8)**

Financial highlights of the Domestic Cash-Generating Units

The main financial and operating highlights of the Domestic Business Unit are reported according to two Cash-Generating Units (CGU), as defined by IAS 36:

- **Core Domestic**: includes all telecommunications activities pertaining to the Italian market. Revenues are broken down in the following tables according to the net contribution of each market segment to the CGU's results, excluding intrasegment transactions. The sales market segments established on the basis of the "customer centric" organizational model are as follows:
    - **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; customer care, operating credit support, loyalty and retention activities, sales within its remit, and administrative management of customers; the segment includes the companies 4G Retail, Persidera and Noverca.
    - **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 segment includes the companies Olivetti, TI Trust Technologies and Olivetti Scuola Digitale (formerly Alfabook) and Telsy.
    - **Wholesale:** 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 Open Access operations connected with delivery and assurance processes for customer services. The segment includes the companies TN Fiber, Flash Fiber, TI San Marino and Telefonia Mobile Sammarinese.
    - **Other (INWIT S.p.A. and support structures)**: includes:
        - **INWIT S.p.A.:** from April 2015, the company has been operating within the Operations area in the electronic communications infrastructure sector, specifically relating to infrastructure for housing radio transmission equipment for mobile telephone networks, both for TIM and other operators;
        - **Other Operations units:** covering technological innovation and development, engineering, construction and operating processes for network infrastructures, IT, real estate properties and plant engineering;
        - **Staff & Other:** services carried out by Staff functions and other support activities performed by minor companies of the Group, also offered to the market and other Business Units.
- **International Wholesale – Telecom Italia Sparkle group:** 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.

Key results for 2018 for the Domestic Business Unit are presented in the following tables, broken down by market/business segment and compared to 2017, on the same accounting basis.

Core Domestic

(millions of euros)	2018 comparable	2017	Change amount	Change %
Revenues	**14,161**	**14,249**	**(88)**	**(0.6)**
Consumer	*7,573*	*7,737*	*(164)*	*(2.1)*
Business	*4,721*	*4,656*	*65*	*1.4*
Wholesale	*1,787*	*1,690*	*97*	*5.8*
Other	*80*	*166*	*(86)*	*(51.8)*
EBITDA	**6,127**	**6,029**	**98**	**1.6**
EBITDA Margin	*43.3*	*42.3*		*1.0 pp*
EBIT	**335**	**2,736**	**(2,401)**	**(87.8)**
EBIT Margin	*2.4*	*19.2*		*(16.8)pp*
Headcount at year end (number)	**47,455**	**49,095**	**(1,640)**	**(3.3)**

In detail:

- **Consumer:** revenues for 2018 in the Consumer segment were equal to 7,573 million euros, down on the performance of the previous year (-164 million euros, -2.1%), in contrast to the growth registered in 2017, due to the changed competitive and regulatory scenario (entry of a fourth mobile operator, 30-day pricing restored). The same trend seen in total revenues also applied to revenues from services, which amounted to 6,834 million euros, down by 1.6% compared to the previous year (-114 million euros). In particular:
  - Mobile revenues amounted to 3,835 million euros (-1.5% on the previous year); revenues from services fell by 122 million euros (-3.7% over 2017), with a more marked slowdown in the fourth quarter compared to the trend observed the previous year, attributable to the changed regulatory and competitive scenario;
  - revenues from the Fixed-line market totaled 3,696 million euros, down over the previous year (-3.0%), but with revenues from services in line with 2017; this trend reflected a decrease in accesses, offset by higher ARPU levels.
- **Business:** revenues for the Business segment amounted to 4,721 million euros, up by 65 million euros on 2017 (+1.4%) attributable to revenues from services (+1.4%). In particular:
  - Mobile revenues show a positive performance compared to 2017 (+1.8%), driven mainly by higher revenues from services (+1.2%) and, in particular, growth in new digital services (+2.7% on 2017);
  - Revenues from the fixed-line market rose by 41 million euros (+1.1% over 2017), thanks to the performance of services (+1.4%); lower prices and revenues from traditional services (connected with the technological shift towards VoIP systems and solutions) were more than offset by steady growth in revenues from ICT services (+14.7%).
- **Wholesale**: revenues for the Wholesale segment in 2018 came to 1,787 million euros, up by 97 million euros compared to 2017 (+5.8%). Cuts to regulated prices, which lowered revenues by 65 million euros, were mainly offset by growth in access, driven by the Ultra-Broadband segment.

International Wholesale

(millions of euros)	2018 comparable	2017	Change amount	Change %	Change % organic
Revenues	**1,272**	**1,349**	**(77)**	**(5.7)**	**(4.7)**
of which third party	*1,084*	*1,152*	*(68)*	*(5.9)*	*(4.7)*
EBITDA	**111**	**154**	**(43)**	**(27.9)**	**(26.5)**
EBITDA Margin	*8.7*	*11.4*		*(2.7)pp*	*(2.6)pp*
EBIT	**(144)**	**37**	**(181)**		
EBIT Margin	*(11.3)*	*2.7*		*(14.0)pp*	*(14.0)pp*
Headcount at year end (number)	**745**	**756**	**(11)**	**(1.5)**	

Revenues for the **International Wholesale** Cash-Generating Unit for 2018 totaled 1,272 million euros, showing a drop of 77 million euros on the 2017 figure (-5.7%). This trend is mainly related to the downturn in revenues from traditional telephone services and to the expiry of long-term contracts relative to the Mediterranean Basin area (IP/Data services).

The International Wholesale Cash-Generating Unit comprises the Telecom Italia Sparkle group companies; a share of the TIM group goodwill was allocated to the CGU. In the 2018 Financial Statements, the value of the assigned goodwill was written down for an amount of 140 million euros following the impairment test.
Further details are provided in the Note “Goodwill” to the TIM Group Consolidated Financial Statements at December 31, 2018.

BRAZIL

	(millions of euros)			(millions of Brazilian reais)				
	2018	2018 comparable	2017	2018	2018 comparable	2017	Change	
							amount	%
		(a)	(b)		(c)	(d)	(c-d)	(c-d)/d
Revenues	3,943	3,959	4,502	16,981	17,050	16,234	816	5.0
EBITDA	1,467	1,511	1,635	6,316	6,508	5,894	614	10.4
EBITDA Margin	*37.2*	*38.2*	*36.3*	*37.2*	*38.2*	*36.3*		*1.9 pp*
EBIT	564	569	535	2,428	2,449	1,931	518	26.8
EBIT Margin	*14.3*	*14.4*	*11.9*	*14.3*	*14.4*	*11.9*		*2.5 pp*
Headcount at year end (number)				9,658		9,508	150	1.6

The average exchange rates used for the translation into euro (expressed in terms of units of Real per 1 euro) were 4.30628 for 2018 and 3.60584 for 2017.

	(millions of euros)			(millions of Brazilian reais)				
	4th Quarter 2018	4th Quarter 2018 comparable	4th Quarter 2017	4th Quarter 2018	4th Quarter 2018 comparable	4th Quarter 2017	Change	
							amount	%
		(a)	(b)		(c)	(d)	(c-d)	(c-d)/d
Revenues	1,025	1,030	1,113	4,457	4,479	4,257	222	5.2
EBITDA	417	427	465	1,807	1,856	1,758	98	5.6
EBITDA Margin	*40.5*	*41.4*	*41.3*	*40.5*	*41.4*	*41.3*		*0.1 pp*
EBIT	186	188	195	807	813	729	84	11.5
EBIT Margin	*18.1*	*18.2*	*17.1*	*18.1*	*18.2*	*17.1*		*1.1 pp*

	2018	2017
Lines at period end (thousands) (*)	55,923	58,634
MOU (minutes/month) (**)	123.4	109.7
ARPU (reais)	22.4	20.2

(*) Includes corporate lines.
(**) Net of visitors.

Revenues

Revenues for 2018 amounted to 16,981 million reais. Comparable revenues for 2018, amounting to 17,050 million reais, were up by 816 million reais (+5.0%) on the previous year.

Revenues from services, on the same accounting basis, amounted to 16,205 million reais, rising by 731 million reais on the 15,474 million reais posted for 2017 (+4.7%).

Revenues from product sales, on the same accounting basis, came to 845 million reais (760 million reais for 2017, +11.2%). The increase reflects the change in the sales policy, which is now focused more on value than on increasing sales volumes. The main goals of the new strategy are to increase purchases of new connected devices giving TIM customers access to broadband services on 3G/4G networks and to support new retention offerings for higher-value postpaid customers.

On the same accounting basis, Mobile Average Revenue Per User (ARPU) for 2018 was equal to 22.4 reais, up by +11% on the figure for 2017 (20.2 reais), due to a general repositioning towards the postpaid segment and new commercial initiatives aimed at increasing data usage and the average spend per customer.

Total lines in place at December 31, 2018 amounted to 55.9 million, a decline of 2.7 million compared to December 31, 2017 (58.6 million). The lower figure was driven entirely by the prepaid segment (-5.1 million), only partially offset by growth in the post-paid segment (+2.4 million), in part due to the consolidation underway in the market for second SIM cards. Postpaid customers accounted for 36.2% of the customer base at December 31, 2018, an increase of 5.8 percentage points on December 2017 (30.4%).

Revenues for the fourth quarter of 2018 amounted to 4,457 million reais. Comparable revenues were equal to 4,479 million reais, an increase of 5.2% compared to the same period of the previous year (4,257 million reais).

EBITDA

EBITDA for 2018 amounted to 6,316 million reais.
Comparable EBITDA for 2018 amounted to 6,508 million reais, up by 614 million reais on the previous year (+10.4%). Growth in EBITDA was attributable to both the positive performance of revenues and the benefits delivered by projects to enhance the efficiency of the operating expenses structure.
The EBITDA margin, on the same accounting basis, rose by 1.9 percentage points on 2017 to reach 38.2%.
The Brazil Business Unit reported net non-recurring income in 2018 of 2 million reais, mainly relative to the positive effect of the favorable outcome of the tax dispute concerning the unconstitutional grounds of the law that entailed the inclusion of ICMS indirect tax in the base for calculating taxes on PIS and COFINS revenues (159 million reais at an EBITDA level), which was mainly offset by the recognition of expenses related to the forecast revision of labor litigation arising in previous years.
EBITDA, net of the non-recurring component, was equal to 6,506 million reais.

EBITDA for the fourth quarter of 2018 amounted to 1,807 million reais. On the same accounting basis, the figure came to 1,856 million reais, showing growth of 98 million reais on the fourth quarter of 2017. The EBITDA margin for the fourth quarter of 2018 stood at 41.4%, up by 0.1 percentage points on the same period of the previous year (41.3%).

The changes in the main cost items are shown below:

	(millions of euros)		(millions of Brazilian reais)		
	2018 comparable (a)	2017 (b)	2018 comparable (c)	2017 (d)	Change (c-d)
Acquisition of goods and services	1,821	2,168	7,842	7,816	26
Employee benefits expenses	317	353	1,364	1,274	90
Other operating expenses	488	500	2,102	1,805	297
Change in inventories	(14)	6	(59)	20	(79)

EBIT

EBIT for 2018 amounted to 2,428 million reais. Comparable EBIT for 2018 rose to 2,449 million reais, up by 518 million reais (+26.8%) on the same period of the previous year (1,931 million reais). Growth was mainly driven by higher EBITDA (+614 million reais) and slightly higher depreciation and amortization (96 million reais).
Net of the non-recurring component, EBIT was equal to 2,447 million reais.

EBIT for the fourth quarter of 2018 amounted to 807 million reais. On the same accounting basis, the figure came to 813 million reais, showing growth of 84 million reais on the fourth quarter of 2017 (+11.5%). The EBIT margin for the fourth quarter of 2018 stood at 18.2%, up by 1.1 percentage points on the same period of the previous year (17.1%).

MAIN COMMERCIAL DEVELOPMENTS

DOMESTIC

Consumer

TIM is driving the country's digital revolution, continuing to invest in innovation through the development of fixed and mobile ultrabroadband networks, platforms and highly customized quality services based on customer needs. TIM is also committed to spreading a digital culture for leisure, offering **innovative, flexible and increasingly convergent products that boast the best multimedia content**, with films, TV series, music, video games, sports' news and major events, delivered through decoders, smart TVs, the Web and mobile apps.

In 2018, TIM continued to develop the fixed consumer market, with its new convergent, quadruple play deal for families **TIM Connect**,launched in April at a price starting from 26.90 euros/month. The deal offers a fiber connection with download speeds of up to 1000 Mbps and upload speeds of up to 100 Mgbs, including a free-loan modem and Timvision. The **Gold** version, at a price of 29.90 euros/month, also includes unlimited calls from home to landline numbers and national mobile numbers; while the **Black** version, at a price of 39.90 euros, offers 1,000 minutes of calls from a mobile telephone and 5 GB of data traffic, plus international calls to all zone 1 landline numbers.

All new TIM Connect deals also offer the **TIM Expert** service. For an additional charge, customers receive the expert assistance of a TIM engineer in their home when activating the deal, to test and optimize the performance of their new Internet connection. To support the launch of the new TIM Connect deals, additional promotions were offered and renewed during 2018; these include the **promo Limited Edition** or **Winter Edition** (with an extra 2 euros/month off the basic price for new customers), and specific promotions for customers purchasing deals online.

To support fixed-mobile convergence, TIM launched the **TIM 100%**promotion in March, targeting its most loyal customers that choose TIM as the operator for both their home and mobile connection, with 5 GB of data traffic free each month. In July, the promotion was extended to cover 3 SIM cards of TIM, even if not held in the name of the main SIM card owner, and the fixed network, for even greater benefits.

Throughout 2018, TIM continued **to support the use of new fiber technology,** with offers for customers that already have ADSL and can use the FTTCab service, to migrate towards the new technology, at no additional cost.

As regards the drop in customers due to transitions from fixed lines to the mobile segment, the new **TIM Flexy** offer was launched in November, targeting second-home owners in particular. TIM Flexy is the first deal for fixed network browsing at speeds of up to 200 Mbps, to use even for just one weekend. This solution, which is perfect for second-home owners and for homes used for occasional weekends away or short breaks is offered as a pay-as-you-go deal starting from €5.90. TIM Flexy is the solution for customers who want to connect from home when they want – for two, seven or thirty days. The Internet deal offers unlimited traffic, with no voice service.
Further developments were made in 2018 to bring Fixed-line Consumer deals in line with the obligations of AGCOM decisions, including Decision 292/18/CONS (which establishes a new system to identify various types of Internet accesses based on the type of connection between the exchange and the user location), and Decision 348/18/CONS (which establishes measures on access to an open Internet, with specific reference to the freedom of choice of handsets).

As regards the mobile sector, TIM continued to support the **development of 4G and 4.5G ultrabroadband** during 2018, achieving important goals - and first and foremost its **download speed record** in Ookla tests. Important progress was also made in terms of coverage: at national level, 4G technology has now reached more than **7,300 municipalities**, **covering over 98%** of the population. The company continued the steady roll-out to Italy's major cities of **4.5G** services (LTE Advanced technology), which offer data connection speeds of up to **700 Megabits per second.**
TIM's technological leadership was confirmed with its **acquisition of 5G frequencies**, which are fundamental for the future development of mobile services that can revolutionize the lives of citizens, consumers and businesses alike, steering the country towards a dimension in which everything is smarter and more connected: from public safety to transport, from environmental monitoring to health, tourism and culture, and even applications for media, education and virtual reality. TIM has already run numerous live trials with 5G in Turin, Bari and Matera, and in the Republic of San Marino, where it has already implemented services for a Smart City, health, tourism and culture.
Technological leadership means a **competitive edge** for TIM, which is fundamental for making it mark in a highly competitive market. By making the most of the distinctive quality **of the 4G and 4.5G network**, TIM has been able to continue its **"value" strategy** and focus on the quality of its offering, maintaining a **premium position** on the market.
Another essential aspect of its business strategy in 2018 was customer **retention**, with the focus on reducing churn rates and stabilizing customer spending. As part of the campaign, a range of deals was launched (TIM

Special, TIM Young, TIM 60+, TIM International) offering content benefits and subscription discounts for customers choosing to direct debit the subscription fee from their bank account or credit card. Plus, to increase awareness and satisfaction, **TIM Party was launched** - the retention program for all TIM customers that can only be accessed online.
The program has three levels:

- extensive benefits for all customers joining the program;
- specific benefits for clusters selected based on how long customers have been with TIM and the presence of several TIM services (3Play, 4Play);
- competitions with prizes.

TIM Party, with its innovative, differentiated format, aims to increase customer retention, the penetration of 3-4Play services, the digital customer base as well as approval levels.
At the same time, efforts continued to **focus on the spread of new smartphones** through the offer of premium content and unique formulas, such as the "**NEXT**" smartphone renewal deal. TIM was the first to offer this kind of deal, allowing the customer to **replace their smart phone every year** at no cost, with extra services such as protection against damage and theft.
Lastly, during the year the company also continued its **segment-based approach, with dedicated value propositions according to the varying needs of the targets**. In particular, for **Young** customers, initiatives included targeted music deals and special content offers for customers choosing to direct debit subscription charges from their bank account or credit card. For the youngest customers (Young Junior), TIM focused on expanding the content it offers to appeal both to younger children (TIM Games) and parents (TIM Protect, to control Internet browsing, and tracking services and devices). Finally, for Senior customers, the company expanded its offering with targeted features such as dedicated 24/7 telephone assistance and simplified smartphones.

Business

TIM's work in the Business market during 2018 focused on four main areas:

- supporting positive growth in the Fixed-line and Mobile customer bases, in keeping with trends in the various segments (fixed-line, mobile and IT) and gradually increasing revenues;
- further consolidating the Customer Base retention process with structural action targeting offers as well as Customer Experience, through a "more for more policy" that makes the most of TIM's profile as an integrated operator;
- further consolidating commercial monitoring of the market, above all by increasing the proximity of direct and indirect sales channels;
- extending leadership in the ICT market by increasing products targeting "over-the-network" services and data deals for the large customer segment and through "off-the-shelf" cloud computing solutions for SMEs, based on a multi-cloud approach.

The main goals of 2018 were protecting the **Customer Base** and consolidating **TIM's position as a national player that can** meet the IT needs of SMEs, large companies and the public administration. These goals were pursued by maintaining a distinctive product offering and consolidating the **commercial front end**, which has also been functional in the gradual migration of the services mix used by customers towards more updated models based on the extensive adoption of fixed network Fiber/VoIP connectivity, mobile network LTE and Cloud solutions. Considerable effort has gone into developing the **ARPU**, through bundle deals and by leveraging professional services that are distinctive and highly visible.

For the **fixed-line network** in particular towards the SOHO-SME segment, TIM has further simplified its offering, focused on Fiber and VoIP solutions. The growth in ARPU and loyalty has been supported by bundle deals for Unified Communication services (Tim Comunicazione Integrata Smart), together with mobile network and IT services, delivering major opportunities for end users in terms of efficiency and new business development.
With a view to improving customer care management, new customer segmentation was developed, combining customer value with technology, and pre-retention actions based on predictive models were stepped up.
For high-end customers, the main new feature was the launch of the first offer of **SD-WAN**, which gives users greater flexibility in managing their bandwidth needs. The proposition of cloud computing services was stepped up further, offering - alongside consolidated VoIP and advanced Collaboration service -the "cloud-on premise" deal with SIP trunking as part of the **TIM Comunicazione Integrata**, in synergy with the development of IT services.
The award of the Consip LAN 6 agreement drove the development of projects in the last part of the year to update the local connectivity of the public administration sector.

The development of the **Information Technology** offering focused on leveraging Data Center assets and on the offer of Security, Communication as a Service and Business Solutions.
Efforts were stepped up, with respect to 2017, to promote the adoption of SPC Cloud Lotto 1 solutions for the Public Sector, in particular cloud-based IaaS, PaaS, SaaS solutions, with important projects being started by numerous major local public authorities in 2018.

The integration of connectivity deals with public cloud services managed by TIM was exemplified by the launch of the **TIM Safe Web** secure DNS deal, integrated with all basic Internet connectivity bundles for the SOHO-SME segment, protecting over 500,000 customer accesses from over 450 million fraudulent events or IT threats. A project was set up to develop multi-cloud IT services provided by TIM, through strategic partnerships with leading providers of IT Cloud over the top services. The IT offering for SMEs continued to be developed with the Digital Store Market Place featuring around 160 solutions for SMEs, also developed by partners in the TIM Open environment, using both a horizontal and vertical approach to new e-commerce, e-payment, security, and video control solutions, to give just a few examples.

In terms of **Mobile services,** the **Mobile Ultra-Broadband service** over the LTE and VoLTE networks continued to be developed in 2018, while also expanding the offering with VAS and IT bundle solutions, with a "more money for more value" mindset. During the year, the total acquisition of lines went up considerably, despite a competitive market where the presence of a newcomer was more than offset by the performance in MNP and M2M acquisitions.
For our high-end customers, alongside contract renegotiations with large customers to defend revenues, the **Tutto Smart** offering continued, which provides **a bundle of services** for smartphones and tablets with All-Risk Assistance.

Lastly, Olivetti continued to optimize its more "traditional" offering in the office and retail sectors in 2018, channeling its products into a single business line to transform them from a simple hardware component into a hub delivering integrated digital solutions (cash registers and multifunction printers in particular). This optimization also targeted more "innovative" areas of the world of IoT, M2M and Big Data. Excellent results in smart metering and tracking were achieved.

BRAZIL

In 2018, TIM Brazil fully renewed its range of offers to reposition the brand with high-value customers, leveraging its leadership in the 4G network.
The change in approach had a major impact on the mix of the customer base, mainly in the prepaid segment, resulting in the progressive and marked migration of customers from single service daily plans (voice and/or data) to recurring weekly/monthly plans that bundle voice and data packages with other value-added digital services (music, e-reading and video streaming), all with a view to stabilizing future revenue flows and proactively managing the ongoing consolidation of the market for second SIMs.
The main sales initiatives included:

- the launch of a new range of recurring bundle offers (TIM Pre TOP) for the prepaid segment, which offer comprehensive and differentiated solutions for voice and data services, and packages of unlimited social networks for a specific period (two weeks);
- New TIM Controle: TIM Controle with social networks was launched in the third quarter. The offer now includes unlimited social networks for three months, a 5 GB data package and unlimited calls to any carrier, costing 49.99 reais per month. The offer was launched through a major media campaign, featuring top artists with great appeal to the target audience;
- Fixed: The focus on investing in FTTH (Fiber To The Home) expansion continues, with higher speed offers and optimal connection stability. TIM began to invest in this type of technology in the fourth quarter of 2017, closing the fourth quarter of 2018 with the number of households with FTTH available representing 24% of the total coverage;
- TIM Casa Internet, which uses WTTX technology to offer residential broadband through the mobile network, is available in 123 cities.

MAIN CHANGES IN THE REGULATORY FRAMEWORK

DOMESTIC

In this section we report the main changes in the regulatory framework in 2018 in the Domestic region.
As regards the Antitrust proceedings (A514, I799 and I820), 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, 2018.

Wholesale fixed-line markets

Fixed network access market analysis

On February 20, 2017, AGCom launched the fourth cycle of access market analysis (resolution 43/17/CONS) to review the obligations and economic terms of wholesale access services for the 2018-2021 period.
The market analyses also take into account TIM's voluntary legal separation project relative to the fixed access network, notified to AGCom on March 27, 2018.
On January 18, 2019, AGCom put the result of coordinated access market analyses to a public consultation (resolution 613/18/CONS), proposing the following:

- confirmation of TIM as operator with significant market power (SMP) on the access market for all of Italy with the exclusion of Milan, where the regulation was repealed ex ante;
- positive assessment of the project to separate the TIM access network, but with a limited impact on how obligations will evolve, as AGCom believes elements of vertical integration still exist (in the project notified to AGCom, the network company – NetCo – is held 100% by TIM);
- elimination of the obligation to guide the cost of wholesale prices in municipalities considered "contestable" (up to 45 in the 1st year with annual update possible, based on developments in alternative infrastructures and the market); these prices are tested ex ante for replicability;
- wholesale subscription charges for copper and fiber for 2018 the same as 2017;
- gradual increase in the full unbundling price (ULL) and bitstream price on copper in the 2019-2021 period;
- sub loop unbundling (SLU) price stability in the 2019-2021 period;
- gradual decrease in fiber access prices (VULA FTTC and FTTH) and price differentiation of the bandwidth in the 2019-2021 period, depending on whether the access line is on a copper or NGA network;
- repeal of current replicability obligations in public tenders;
- reduction in times for giving notice of the closure of exchanges whose duration depends on NGA network coverage (including FWA technology) in the area where the exchange is present;
- possibility to use vectoring in FTTC cabinets where sub loop unbundling (SLU) is not used by alternative operators;
- elimination of current asymmetries in procedures to change operator between processes to return to TIM and changing from TIM to alternative operators.

It is estimated that AGCom will reach a final decision between June and July 2019, after the deadline for the national consultation and subsequent opinions issued by the European Commission and AGCM.

Infratel Tenders for the subsidizing of Ultra-broadband networks

On April 4, 2018, Infratel launched a consultation on the public investment plan for "gray areas". As stated in the consultation document, the aim of public intervention in gray areas is to support investment projects in networks able to provide symmetrical 1 Gbps upload and download speeds, thereby delivering step change innovation in current networks. The consultation process is required by EU regulations governing state aid, before the formal notification of the plan to the European Commission. State aid measures can only be implemented with the prior approval of the Commission.
On April 19, 2018, Infratel announced a third call for tenders for contracts worth a total of 103 million euros to cover the remaining "white areas" of the ultra-broadband network not covered by private service providers, all located in Calabria, Apulia, and Sardinia. TIM did not make any technical/price proposals. On December 19, 2018, the contract was awarded to Open Fiber.

Wholesale mobile network markets

Mobile termination market analysis

On January 22, 2018, AGCom published its final decision on mobile network termination market analysis (resolution 599/18/CONS). AGCom decided to:

- identify the twelve operators, including Iliad, that provide or will provide termination services for voice calls on the mobile network (MNO and Full MVNO) as operators with significant market power (SMP);
- confirm use of the cost model indicated in Decision 60/11/CONS to establish termination prices for the 2018-2021 period, also establishing symmetric rate conditions for all SMP operators (0.98 eurocents in 2018, 0.90 eurocents in 2019, 0.76 eurocents in 2020, 0.67 eurocents in 2021) based on a WACC equal to 8.55%;
- require price control for the supply of interconnection kits, for all SMP operators, retroactively as from 2018;
- withdraw the obligation for TIM, Vodafone and WindTre to recognize costs in the accounts;
- confirm the absence of the obligation to control termination prices for calls originating from 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.

Retail fixed-line markets

Universal Service

In May 2018, TIM challenged the Lazio Regional Administrative Court ruling that dismissed TIM's appeal against Resolution 456/16/CONS with the Council of State. In that decision, AGCom rejected TIM's proposal for a price adjustment to "voice" offers (basic voice telephone service) and introduced a strict procedure for future variations in Universal Service prices.
On June 15, 2018, AGCom Resolution 88/18/CIR accepted that all operators should contribute to the net cost of the universal service for 2009, for a total of 11.61 million euros, of which 5.6 million euros payable by Other Operators. In relation to 2008, AGCom also accepted the existence of a cost, the amount of which, however, does not justify the activation of the contribution mechanism.
Following the conclusion of assessment activities to review the net cost of Universal Service for the years 2006 and 2007, which resulted in Decision 145/17/CONS, on July 3, 2018, AGCom Decision 89/18 /CIR launched a public consultation process on the applicability of the mechanism for distributing and assessing the net cost of the Universal Service for those years, which ended on November 15.

Authority fees

AGCom contribution fee

In March 2018, TIM conditionally paid an amount of 18.5 million euros for the 2018 AGCom contribution fee. The amount was calculated by applying a rate of 0.00135 to the revenues posted in the Company's 2016 Financial Statements, as required by the guidelines set out in AGCom Decision 426/17/CONS.

Privacy and personal data protection

General Data Protection Regulation

On May 25, 2018, the General Data Protection Regulation (Regulation (EU) No. 2016/679 – "GDPR") came into force. The GDPR is directly applicable in all Member States of the European Union, superseding, in Italy, the provisions of the Data Protection Code that are incompatible with the new regulation.

To ensure the compliance of personal data processing with the GDPR within Group companies, TIM carried out the activities envisaged in the adjustment plan by the May 25, 2018 deadline, involving almost all relevant TIM departments and Group Companies for around 18 months. In particular the activities carried out led to:

- the appointment of the Data Protection Officer and the setting up of related touch points for data subjects in relation to the processing of their data;
- the appointment of internal Privacy Officers, employees with specific duties and instructions to assist the Company's senior management in implementing their obligations;
- the updating and issuing of numerous policies and procedures, including those defining the obligations in relation to data breaches (extended to all types of personal data), privacy impact assessments (for processing high privacy risk data), customer profiling, data subject rights request management;
- the adjustment of the TIM compliance catalog to render it compliant with the processing activity register;

- the updating of the numerous disclosures on personal data processing, provided by TIM and other Group companies to the various types of data subjects (e.g. customers, employees, visitors);
- the revision of procedures in the event of the assignment of activities to third parties (e.g. suppliers and business partners) to ensure compliance with the legislation.

A specific training project was then designed to raise awareness in the various company departments and to illustrate the policies and procedures in place for the application of the GDPR. Eight training courses involving around 600 TIM and Group company employees were held.
Further training initiatives related to privacy were aimed at personnel moving to commercial departments, to ensure correct understanding and application of privacy obligations in relation to sales and telemarketing activities, as well as at personnel overseeing the execution of obligatory services for the judiciary.

BRAZIL

Revision of the model for the provision of telecommunications services

In April 2016, the working group composed of the Ministry of Science, Technology, Innovation and Communications (MCTIC) and Anatel published its final report with a "diagnosis" on the telecommunications industry and proposed guidelines for the revision of the Brazilian regulatory model. A bill (PLC 79/2016) was then presented to the National Congress of Brazil to propose amendments to the General Telecommunications Law. Although the bill was passed by both chambers of Congress, the opposition challenged the legislative procedure followed in the Supreme Court, where the bill remained blocked for months. At the beginning of October 2017, the bill PLC 79/2016 was referred back to the Senate pending voting. Its approval is expected to be held over the course of 2019.

In October and November 2017, the Ministry of Science, Technology, Innovation and Communications (MCTIC) held a public consultation to review the general telecommunications policy proposing the setting of guidelines and objectives for the provision of telecommunications services, for the technological development of digital services and broadband infrastructure, and for the spread of "smart cities". The Public Consultation was memorialized in Decree 9,612/2018 ("Connectivity Plan") and established a series of guidelines for implementation of the new rules of conduct, paid granting 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 offer through this type of infrastructure. It also establishes that the implemented network will be subject to sharing from its entry into operation, except when there is appropriate competition in the respective relevant market.

In relation to the deadlines for the upgrading 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 MCTIC) will focus primarily on the expansion of mobile and fixed-line broadband networks and on specific areas of the country. TLC networks built under the investment plan will have shared access.

Revision of Competition Rules

In November 2012, the Brazilian regulator Anatel introduced instruments for the market analysis, the identification of operators with significant market power (SMP) and the consequent imposition of *ex-ante* obligations (Plano Geral de Metas de Competição – PGMC).
Anatel has established a number of asymmetrical obligations on all markets for operators with a Significant Market Power (SMP).
In July 2018, Anatel published the new PGMC revising some points and defining two new markets: (i) interconnection for mobile services; and (ii) high capacity data transmission.
TIM Brasil has been identified as the SMP operator for: (i) mobile network terminals; (ii) national roaming; and (iii) high capacity data transport (in five municipalities).

The measures adopted for the SMP operator on these markets include:

- a reduction in mobile termination rates based on a price cap system and partially maintaining a Bill & Keep mechanism, until the next review of the PGMC;
- the obligation for non-SMP operators to offer national roaming services.

The obligation for vertically integrated landline operators with an SMP to access the copper network (e.g.: leased lines, bitstream and full unbundling) was maintained.

With the new PGMC, alternative operators may not apply asymmetrical interconnection rates above 20% the rate applied by incumbent operators. Since 2016, fixed interconnection rates have been based on a cost-oriented approach.

700 MHz and Analog TV switch off

In September 2014, TIM won the tender for the award of the 700 MHz (4G/LTE) band frequencies, for a price of 1.7 billion reais, and with additional commitments of 1.2 billion reais (in four annual installments, adjusted for inflation) as a contribution to the consortium established by the tender ("EAD") for all the operators (TIM, Algar, Claro and Vivo) awarded the contract for managing the freeing up of the 700 MHz band through the switch off of analog TV, the redistribution of channels and the clean-up of interference. To that end, the first payment (370 million reais) was made in April 2015 and another two payments (for a total of 860 million reais) were both made in January 2017, while the final installment (142 million reais) was duly paid in January 2018.
Since 2016, the spectrum has been freed up for mobile operations in 4,467 municipalities and all Brazilian capitals already have the mobile service in 4G technology, operating in the range. These municipalities cover approximately 85% of the Brazilian population. Currently about 2,620 cities are in operation and 1,379 cities were shut down. By 2019, the schedule for completion of the remaining 1,103 cities remains.

"Marco Civil da Internet" and Network Neutrality

The "Marco Civil da Internet" (MCI), approved in April 2014 by Brazilian Law No. 12,965/2014, defined network neutrality as the "duty to treat different data packages in the same way, without distinction based on content, origin and destination, service, terminal or application". On May 11, 2016, Brazilian Presidential Decree No. 8,771/2016 was published, which regulates exceptions to the principle of net neutrality, set out in article 9 of the mentioned law.
In August 2017, the oversight board ("GS") of the Administrative Council for Economic Defense (CADE) handed down a decision in favor of Brazil's mobile TLC providers, which excluded the imposition of fines in relation to a preliminary investigation into alleged unfair competition in "zero rating" offers and promotions on Internet data consumption. The oversight board heard the depositions of various parties, including the Ministry of Science, Technology, Innovation and Communications (MCTIC) and Anatel, and concluded that Internet business models should not be banned *ex-ante*, but instead should be monitored comprehensively to prevent any unfair competition outcomes.

Strategic Digital Transformation and the Internet of Things

Between December 15, 2016 and February 5, 2017, the MCTIC conducted a public consultation process to discuss the public procedure for solutions enabling Machine to Machine (M2M) and Internet of Things (IoT) services for the Brazilian market. The final consultation report was published in November, with the objective of addressing regulatory and tax matters, as well as aspects of public procedure, investment, and education issues. A decree outlining a national IoT plan is expected to be published in 2019.

In August and September 2017, the MCTIC conducted a public consultation process on Digital Transformation Strategy (E-Digital), with the aim of widening discussion and creating strategies for the digitization of the Brazilian economy. An E-Digital Decree (9319/2018) has now been published, identifying around 100 strategic actions aimed at boosting competition and on-line productivity levels in the country, while raising connectivity and digital inclusion levels. The actions seek to address the main strategic issues for the digital economy, including connectivity infrastructure, the use and protection of data, IoT, and cyber-security.

In July 2018, Anatel also requested funding for a Public Consultation on future IoT regulation and a reduction in entry barriers to expand IoT. The main issues addressed by Anatel were: (i) the need for a license; (ii) use of the spectrum; (iii) quality and consumer protection; (iv) taxes. The Public Consultation is expected to be held in 2019.

Data protection

On August 14, 2018, the Brazilian President promulgated the General Data Protection Law (Law 13,709/2018). The new law, as promulgated by the President, is closer to the GDPR, including significant extra-territorial application and considerable fines of up to 2% of the Company's global turnover of the previous financial year.

In December 2018, Provisional Measure 869/2018 passed by the former President amended Law 13,709 to create the National Data Protection Authority, within the structure of the Presidency of the Republic, which implies greater control by the State and, among other topics, extending the entry into force of the Law to 24 months. By this date all legal entities will be required to adapt their data processing activities to these new rules.

COMPETITION

DOMESTIC

The market

During 2018, the Italian TLC market was affected by a downturn in value due to tougher competition in the mobile sector.
The expansion of broadband and ultra-broadband has been the main driver of market growth, helping to open up new opportunities for telecommunications providers to develop convergent offers that bundle together TLC services with Media & Entertainment services, IT services and Digital services.

The Italian telecommunications market has always been highly competitive; in particular core competition with other operators in the sector is still the factor that has the greatest impact on market trends. Telecommunications operators must also face the challenges from Over the Tops (OTT) and device manufacturers, that operate in the new digital world using completely different assets and competitive strategies to TLC players.

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

- in the Media & Entertainment segment, as the web takes on growing importance as a complementary distribution platform, OTTs, telecommunications providers and consumer electronics manufacturers are acquiring an increasingly major role;
- in the Information Technology market, the decline in traditional revenues is driving the various players towards cloud computing, with the goal of protecting their core business. Telecommunications providers are strengthening in this sector, including through partnerships;
- Consumer Electronics manufacturers are developing services that can be accessed through the Internet by leveraging handset ownership and user experience management, breaking the relationship between customers and TLC providers;
- OTTs have, for some time now, been leading the transformation in how TLC services are used (including voice services), increasingly integrating them with Media & Entertainment, IT and new Digital services.

With regard to the current positioning of telecommunications providers in converging markets, on the other hand, as partially described above, the following is taking place with different levels of progress:

- development of new Media & Entertainment services (TV, Music, Gaming) and new Digital services (Smart Home, Digital Advertising, Mobile Payment-Digital Identity);
- development of Innovative Services in the IT market, particularly Cloud services.

During 2018, the bidding for the award of frequencies for 5G services took place, which led, following various higher bids, to an overall outlay for telecommunications companies of over 6.5 billion euros, well above the minimum bid price:

- TIM and Vodafone were awarded the biggest part of the spectrum, 10+10 MHz at 700 MHz, 80 MHz in the 3.6-3.8 GHz band respectively (the most requested to launch good-quality 5G services) and 200 MHz in the 27 GHz band, consolidating their competitive positioning in terms of bandwidth owned and quality of service offered;
- WindTre was limited to acquiring a 20 MHz part at 3.6-3.8 GHz and a 200 MHz part in the 27GHz band;
- Iliad was awarded the 10+10 MHz to 700 MHz part, reserved for a new entry operator, a 20 MHz to 3.6-3.8 GHz part and a 200 MHz to 27 GHz part;
- Fastweb was awarded a 200 MHz to 27 GHz part.

Based on performance capabilities in terms of speed, latency and number of connected devices, 5G is a great opportunity for telecommunications companies with the necessary bandwidth to open new vertical markets (automotive, smart agriculture, logistics, cloud robotics), provide new services, start up new production processes and increase the efficiency of optimized product management.

Competition in Fixed-line Telecommunications

The fixed-line telecommunications market has continued to see a decline in access and voice revenues, while broadband and ultra-broadband revenues have shown continuous growth. In recent years, service providers have concentrated mainly on expanding the penetration of broadband and ultra-broadband services and

defending Voice revenues by introducing bundled voice, broadband and service deals in a highly competitive environment with consequent pricing pressure.
Deals and offers are also becoming more competitive thanks to the consolidation, among competitors, of an approach based on control over infrastructure (above all, Local Loop Unbundling (LLU), as well as Fiber to the Cabinet (FTTC) networks). The main fixed-line service providers are also offering mobile services, also as Mobile Virtual Operators (MVOs).

As concerns competition in infrastructure, two providers – Open Fiber (an ENEL Group company) and Infratel (controlled by the Ministry of Economic Development) – presented plans for the development of their own optic fiber networks as alternatives to the TIM network, which respectively target major Italian cities and areas of market failure.

For major cities, Open Fiber announced a plan for the development of Fiber to the Home (FTTH) connections in 271 large Italian towns by 2022, reaching around 9.6 million homes through an investment of 3.8 billion euros.
After obtaining 3.5 billion euros of funding in July 2018, the development of the Open Fiber network was stepped up considerably, opening up to 71 Italian towns (as of January 2019), including many major Italian cities, such as Milan, Turin and Bologna, where "Metroweb" (acquired in December 2016) had previously expanded, besides other cities such as Bari, Cagliari, Catania, Naples, Padova, Perugia, Venice, Genoa, Palermo and Florence, and other smaller towns that are mainly satellite areas of Milan, Turin and Bologna.
In the meantime, according to media reports, main competitors in the TLC retail market have signed an agreement with Open Fiber to link their new ultra-broadband (UBB) customers onto its network, where available.

As concerns areas of market failure – the so-called “white areas” in the C and D clusters of the government’s Ultra-Broadband Plan – Infratel held three public calls for tenders over the last three years for the development of a UBB network to deliver services to around 7,500 municipalities across 19 regions.

- In the first call for tenders, Open Fiber won all five of the lots offered in the six regions involved (Lombardy, Emilia Romagna, Veneto, Tuscany, Abruzzo and Molise), covering around 3,000 municipalities;
- in the second call for tenders, Open Fiber won all six of the lots offered in the ten regions involved (Piedmont, Valle d'Aosta, Liguria, Friuli Venezia Giulia, the Autonomous Province of Trento, Marche, Umbria, Lazio, Campania, Basilicata and Sicily), covering around 3,700 municipalities;
- in the third call for tenders, Open Fiber won all three lots in the three regions involved (Apulia, Calabria and Sardinia) covering around 880 municipalities.

In January 2019, there were nearly 1,174 work sites open for the first two Infratel/Open Fiber contracts, of which 977 for fiber optic connections and 197 for wireless connections (FWA).

Therefore the development of Open Fiber Plans – both in major Italian cities and market failure areas – will drive a significant shift in infrastructure competition, with the development of various competitive dynamics depending on the overlap and reach of available ultrabroadband infrastructure:

- areas with two FTTH networks overlapping FTTC networks;
- areas with a single FTTH network overlapping FTTC networks;
- areas with FTTH networks overlapping ADSL networks;
- areas with FTTC networks overlapping ADSL networks.

Competition in the Italian fixed-line telecommunications market is also characterized by the presence of other service providers besides TIM, such as Wind-Infostrada, Fastweb, Vodafone, and Tiscali, which have business models focused on different segments of the market.
In December 2018, fixed accesses in Italy were estimated to be around 20.3 million (including OLO Infrastructured and FWA-Fixed Wireless Accesses) down slightly on the previous year. Competition in the access market led to a gradual reduction in TIM's market share.
As concerns the Broadband market, at December 31, 2018, the number of fixed-line broadband customers in Italy (including both broadband and Ultra-broadband customers) was estimated to have reached a penetration rate of approximately 86% of all fixed-line accesses. The spread of broadband continues to be driven by the penetration of computers and other enabling devices (such as Smart TVs), but also by growing demand for fast connections and access to new over-IP services that are becoming increasingly widespread (Media & Entertainment, IT and Digital services).

Competition in Mobile Telecommunications

The mobile market has continued to see the rationalization of second and third SIM cards for human communications, while sales of SIM cards for machine to machine (M2M) communications are growing.

Moreover, growth in mobile broadband customers has continued thanks to the high penetration rate of LTE on mobile lines, especially as a result of the increasing spread of smartphones.
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 on the Italian mobile telecommunications market in 2018 was marked by the entry of the French operator Illiad, that launched its own service in May, becoming the fourth infrastructured operator in Italy, alongside TIM, Vodafone and WindTre.
With a particularly aggressive price and data volume offering, Illiad has rapidly won over customers and consequently gained a market share to the detriment of other infrastructured operators, mainly WindTre and Vodafone, while TIM has shown a greater resilience, thanks also to the contribution from the *second brand* virtual operator, Kena Mobile, launched during 2017. To best respond to the competitive threat of Illiad, Vodafone also launched its own *low-cost* operator in June 2018, with the ho.mobile brand.
At the same time, mobile virtual operators (MVO), of which PosteMobile is the most important player, also reported a growth trend, taking market share away from infrastructured operators.
This tougher competition following Illiad's entry to the market resulted in a new drop in the spend on services, after several years of relative stability.

BRAZIL

Macroeconomic trends witnessed in the last quarter of 2018 confirm a recovery scenario expected for 2019, although forecasts for 2018 have been progressively decreased throughout the year, especially due to political uncertainty regarding the election process. Thus, main scenario is still a slow economic recovery scenario, after a severe recession notably during 2015-16 period. Unemployment has been falling slowly, while inflation returned to a more contained level (below 4% for 2018).

Although some political uncertainty still exists, especially regarding the ability of the new government to fulfill the economic liberal agenda promised during the election process, the market has acknowledged such liberal guidelines presented so far as a pro-business agenda, in the form of a recent hike in the Brazilian stock market (Bovespa +18% from September 30, 2018 until January 15, 2019) and currency appreciation (BRL +8.4% over the same period).

Despite improving financial indicators (such as stock market and currency ratio), economic conditions are still challenging, as budget deficit and growing debts (for central government, Federal States and municipalities) present a risk that can only be addressed by structural reforms that need the congress approval. Present government acknowledges that need and put reforms as a top priority for the first months of the government to put the economy growing consistently for the coming years.

The mobile telecommunications sector has seen some rationality prevail in the market and in competition, with service providers remaining focused on the development of the characteristics and service range of their commercial offers, rather than pursuing aggressive pricing policies, especially for the first half of 2018.

In the **Prepaid segment,** the main objective of market players has been to raise recurrence rates on the use of services by leveraging the ongoing SIM card consolidation process in the market, by encouraging migration to weekly (and monthly) plans or hybrid plans (Controle postpaid) by offering a range of bundled service packages to meet different needs of customers (unlimited voice calls or data packages). The aim of the strategy is to improve the mix of the customer base and ensure greater stability (reducing churn rates) and growth in ARPU. The prepaid base has grown 12.3% YoY (up to November 2018, last data available).

In the **Postpaid mobile segment,** growth in the customer base was driven primarily by the hybrid Controle segment (in particular by the migration of Prepaid customers), even though "pure" Postpaid lines also registered a certain growth based on offer segmentation strategies that introduce distinctions in the use of data services (for example the unlimited use of data for specific apps, such as WhatsApp, Facebook, Netflix, etc.), as part of a "More for More" sales policy that is bringing greater price stability and effectively repositioning the customer base towards higher value deals (voice + data + content). The postpaid base grew by +13.2% YoY (up to November 2018, last data available).

Service quality is still an element of differentiation. Telecommunication providers that have invested more in the development of 4G networks (coverage and capacity) and in the improvement of processes shaping customers' experience will have a greater ability to apply premium prices, as customers raise their expectations and place growing importance on the quality of data services and higher value content.

The **fixed-line broadband market** posted growth of approximately 8.5% in 2018 (up to November 2018, last data available), driven mainly by smaller market players, which tend to offer better download speeds and/or are in areas in which incumbents have limited infrastructure. Penetration rates across the population are still quite low (approximately 43% of households) when compared to several other countries, which means there are good opportunities for medium-term growth, underpinned by the improving macroeconomic situation.

In this context, since 2017, TIM Brasil adopted a business strategy for TIM Live to leverage its fiber network infrastructure, offering ultra broadband Internet services, through FTTC and notably FTTH, not only in some of the largest cities of Brazil, but also in cities where opportunities arise for such high-quality service. Therefore, TIM Live has expanded to cover 12 cities by the end of 2018, and this is expected to grow even more in the following years. TIM Live service not only offers very fast Internet connections, but it is also acknowledged as the best fixed Internet service in Brazil by Netflix, and customer satisfaction rates rank among the best for the service in the country. For smaller cities, TIM has launched its WTTx service, which delivers broadband services through the LTE mobile network, leveraging TIM's leading 4G coverage to address increasing demand for residential broadband, especially in areas with poor fixed infrastructure by local incumbent.

CONSOLIDATED FINANCIAL POSITION AND CASH FLOWS PERFORMANCE

NON-CURRENT ASSETS

- **Goodwill:** this item fell by 2,693 million euros, from 29,462 million euros at the end of 2017 to 26,769 million euros at December 31, 2018 due to the 2,590 million-euro impairment loss recognized on goodwill of the Core Domestic and International Wholesale cash-generating units following the impairment testing conducted at December 31, 2018. Testing was carried out in line with the method used for past impairment testing, in particular comparing the value in use of the Core Domestic and International Wholesale Cash-Generating Units compared to their carrying amount at the same date; the figure was also adversely affected by exchange differences on goodwill allocated to the Brazil Business Unit[1].
Further details are provided in the Note "Goodwill" to the Consolidated Financial Statements at December 31, 2018 of the TIM Group.

- **Other intangible assets:** these rose by 1,697 million euros, from 7,192 million euros at the end of 2017 to 8,889 million euros at December 31, 2018, representing the balance of the following items:
    - impact of the adoption of the new version of IFRS 15 as from January 1, 2018 (-110 million euros);
    - capex (+3,647 million euros);
    - amortization charge for the year (-1,599 million euros);
    - disposals, exchange differences, reclassifications and other changes (for a net negative balance of 241 million euros).

- **Tangible assets:** these fell by 401 million euros, from 16,547 million euros at the end of 2017 to 16,146 million euros at December 31, 2018, representing the balance of the following items:
    - capex (+2,761 million euros);
    - changes in finance leasing contracts (+70 million euros);
    - depreciation charge for the year (-2,656 million euros);
    - disposals, exchange differences, reclassifications and other changes (for a net negative balance of 576 million euros).

CONSOLIDATED EQUITY

Consolidated equity amounted to 21,747 million euros (23,783 million euros at December 31, 2017), of which 19,528 million euros attributable to Owners of the Parent (21,557 million euros at December 31, 2017) and 2,219 million euros attributable to non-controlling interests (2,226 million euros at December 31, 2017).
In greater detail, the changes in consolidated equity were the following:

(millions of euros)	12/31/2018	12/31/2017
At the beginning of the year	**23,783**	**23,553**
Effect of the adoption of IFRS 15 and IFRS 9	(88)	–
At the beginning of the year, restated	**23,695**	**23,553**
Total comprehensive income (loss) for the year	(1,694)	457
Dividends approved by:	(281)	(230)
TIM S.p.A.	*(166)*	*(166)*
Other Group companies	*(115)*	*(64)*
Issue of equity instruments	2	(6)
Other changes	25	9
At the end of the year	**21,747**	**23,783**

[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 4.43664 at December 31, 2018 and 3.96728 at December 31, 2017.

CASH FLOWS

Adjusted net financial debt stood at 25,270 million euros, down by 38 million euros compared to December 31, 2017 (25,308 million euros).
The table below summarizes the main transactions that had an impact on the change in adjusted net financial debt for 2018:

Change in adjusted net financial debt

(millions of euros)	2018	2017	Change
EBITDA	7,403	7,790	(387)
Capital expenditures on an accrual basis	(4,009)	(5,071)	1,062
Capital expenditures for mobile telephone licenses / spectrum	(2,399)	(630)	(1,769)
Change in net operating working capital:	1,194	(126)	1,320
Change in inventories	*(99)*	*(30)*	*(69)*
Change in trade receivables and net amounts due from customers on construction contracts	*(49)*	*379*	*(428)*
Change in trade payables (*)	*(150)*	*40*	*(190)*
Change in payables for mobile telephone licenses / spectrum	*1,886*	*(257)*	*2,143*
Other changes in operating receivables/payables	*(394)*	*(258)*	*(136)*
Change in employee benefits	(208)	437	(645)
Change in operating provisions and Other changes	96	96	–
Net operating free cash flow	**2,077**	**2,496**	**(419)**
of which operating free cash flow connected with the purchase of mobile telephone licenses / spectrum	*(513)*	*(887)*	*374*
% of Revenues	*11.0*	*12.6*	*(1.6)pp*
Sale of investments and other disposals flow	18	33	(15)
Share capital increases/reimbursements, including incidental costs	22	16	6
Financial investments flow	(6)	(12)	6
Dividends payment	(256)	(235)	(21)
Increases in finance leasing contracts	(70)	(68)	(2)
Finance expenses, income taxes and other net non-operating requirements flow	(1,747)	(2,419)	672
Reduction/(Increase) in adjusted net financial debt from continuing operations	**38**	**(189)**	**227**
Reduction/(Increase) in net financial debt from Discontinued operations/Non-current assets held for sale	–	–	–
Reduction/(Increase) in adjusted net financial debt	**38**	**(189)**	**227**

(*) Includes the change in trade payables for amounts due to fixed asset suppliers.

In addition to what has already been described with reference to EBITDA, the change in adjusted net financial debt for 2018 was particularly impacted by the following:

Capital expenditures and for mobile telephone licenses / spectrum

Capital expenditures and for mobile telephone licenses / spectrum are broken down by operating segment as follows:

(millions of euros)	2018		2018 comparable		2017		Change
		% of total	(a)	% of total	(b)	% of total	(a-b)
Domestic	5,518	86.1	5,634	85.9	4,551	79.8	*1,083*
Brazil	890	13.9	924	14.1	1,150	20.2	*(226)*
Adjustments and eliminations	–	–	–	–	–	–	–
Consolidated Total	**6,408**	**100.0**	**6,558**	**100.0**	**5,701**	**100.0**	**857**
% of Revenues	*33.8*		*34.3*		*28.8*		*5.5 pp*

With the introduction of IFRS 15, Mobile customer acquisition costs, relating to contracts with minimum-duration lock-in clauses, are no longer capitalized and depreciated. Instead they are classified as "deferred contract costs" and subsequently recognized in the income statement over the term of the contract.
On the same accounting basis, capital expenditures in 2018 totaled 6,558 million euros (5,701 million euros in 2017).

In particular:

- the **Domestic Business Unit** reported expenditures equal to 5,634 million euros (4,551 million euros in 2017). Net of the acquisition of rights to use 5G frequencies (2,399 million euros) at the end of 2018 and the renewal of the GSM license in 2017 (630 million euros), capital expenditures were down by 686 million euros, mainly attributable to the coverage levels of fixed and mobile networks already achieved;
- the **Brazil Business Unit** posted 924 million euros of capex in 2018, 226 million euros less than for 2017. Without the impact of fluctuations in exchange rates (-187 million euros), the change was a negative 39 million euros. Capital expenditures of the Business Unit were targeted primarily at strengthening mobile ultra-broadband network infrastructure and developing the fixed broadband business of TIM Live.

Change in net operating working capital

The positive change in net operating working capital of 1,194 million euros (negative for 126 million euros in 2017) was mainly related to higher operating payables (1,922 million euros) following the acquisition of rights to use mobile telephone frequencies in Italy (5G): in 2018 TIM made the first payment tranche, for an amount of approximately 480 million euros, the remaining tranches, as established by the Italian government in the 2017 budget law, will be due for payment based on pre-established quotas between 2019 and 2022.

Change in employee benefits

In 2018, the change amounted to -208 million euros and mainly refers to uses for staff leaving the company, already allocated in previous years and the change in the provision for non-executive personnel affected by the application of Article 4(1-7ter) of Italian Law 92 of June 28, 2012, the "Fornero Law", following the higher number of staff leaving in 2018 and the consequent revised estimate of staff leaving for the years 2019-2020, also taking into account the social security changes made by Decree Law 4 of January 28, 2019.
In 2017, the change in employee benefits was affected mainly by the allocation of 689 million euros of provisions for non-recurring expenses, offset by drawdowns totaling 177 million euros in relation to restructuring plans previously in place.

Sale of investments and other disposals flow

This item shows a positive figure of 18 million euros and mainly refers to disposals of assets within the normal operating cycle.
In 2017, the item posted a positive balance of 33 million euros, mainly reflecting the disposal of 17 million euros of tangible assets and the collection of a deferred 13 million euros of the sale price of a non-controlling interest sold in previous years.

Share capital increases/reimbursements, including incidental costs

These totaled 22 million euros in 2018 and essentially consisted of contributions from an external shareholder of the Group for new capital issued by a subsidiary (16 million euros in 2017).

Increase in finance leasing contracts

In 2018, this item was equal to 70 million euros (68 million euros in 2017) and mainly refers to the higher value of finance lease assets and related higher financial payables recognized mainly following the recognition of vehicle lease agreements as finance leases, in accordance with IAS 17, for the Domestic Business Unit.

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

The item shows a net requirement of 1,747 million euros in total, mainly driven by the payment flows, in 2018, of outflows connected to components of financial income and expense, and the change in non-operating payables and receivables, as well as the lower financial debt payable for property leases, under the revised estimated life of leases renegotiated under the real estate restructuring and rationalization plan underway (215 million euros).

Sales of receivables to factoring companies

As regards the reduction of adjusted net financial debt by 38 million euros, we report that sales without recourse of trade receivables to factoring companies completed during 2018 resulted in a positive effect on adjusted net financial debt at December 31, 2018 of 2,004 million euros (2,000 million euros at December 31, 2017).

Net financial debt

Net financial debt is composed as follows:

(millions of euros)	12/31/2018 (a)	12/31/2017 (b)	Change (a-b)
Non-current financial liabilities			
Bonds	18,579	19,981	(1,402)
Amounts due to banks, other financial payables and liabilities	4,740	5,878	(1,138)
Finance lease liabilities	1,740	2,249	(509)
	25,059	**28,108**	**(3,049)**
Current financial liabilities (*)			
Bonds	2,918	2,221	697
Amounts due to banks, other financial payables and liabilities	2,787	2,354	433
Finance lease liabilities	208	181	27
	5,913	**4,756**	**1,157**
Financial liabilities directly associated with Discontinued operations/Non-current assets held for sale	–	–	–
Total gross financial debt	**30,972**	**32,864**	**(1,892)**
Non-current financial assets			
Securities other than investments	–	–	–
Financial receivables and other non-current financial assets	(1,594)	(1,768)	174
	(1,594)	**(1,768)**	**174**
Current financial assets			
Securities other than investments	(1,126)	(993)	(133)
Financial receivables and other current financial assets	(340)	(437)	97
Cash and cash equivalents	(1,917)	(3,575)	1,658
	(3,383)	**(5,005)**	**1,622**
Financial assets relating to Discontinued operations/Non-current assets held for sale	–	–	–
Total financial assets	**(4,977)**	**(6,773)**	**1,796**
Net financial debt carrying amount	**25,995**	**26,091**	**(96)**
Reversal of fair value measurement of derivatives and related financial liabilities/assets	*(725)*	*(783)*	*58*
Adjusted net financial debt	**25,270**	**25,308**	**(38)**
Breakdown as follows:			
Total adjusted gross financial debt	**29,432**	**31,149**	**(1,717)**
Total adjusted financial assets	**(4,162)**	**(5,841)**	**1,679**
(*) of which current portion of medium/long-term debt:			
Bonds	*2,918*	*2,221*	*697*
Amounts due to banks, other financial payables and liabilities	*1,477*	*1,371*	*106*
Finance lease liabilities	*208*	*181*	*27*

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. Taking into account the Group's operating activities, the optimum mix of medium/long-term non-current financial liabilities has been established, on the basis of the nominal amount, at a range of 65%–75% for the fixed-rate component and 25%–35% 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.

Gross financial debt

Bonds
Bonds at December 31, 2018 totaled 21,497 million euros (22,202 million euros at December 31, 2017). Repayments totaled a nominal 21,021 million euros (21,775 million euros at December 31, 2017).

Changes in bonds over 2018 are shown below.

(millions of original currency)	**Currency**	**Amount**	**Issue date**
New issues			
Telecom Italia S.p.A. 750 million euros 2.875% (1/28/2026)	Euro	750	6/28/2018

(millions of original currency)	**Currency**	**Amount**	**Repayment date**
Repayments			
Telecom Italia S.p.A. 593 million euros 4.750% (1)	Euro	593	5/25/2018
Telecom Italia S.p.A. 677 million US dollars 6.999% (2)	USD	677	6/4/2018
Telecom Italia S.p.A. 582 million euros 6.125% (3)	Euro	582	12/14/2018

(1) Net of buy-backs totaling 157 million euros made by the company in 2015.
(2) Net of the securities bought back by TIM S.p.A. (323 million USD) on July 20, 2015.
(3) Net of buy-backs totaling 168 million euros made by the company in 2015.

With reference to Telecom Italia S.p.A. 2002–2022 bonds, reserved for subscription by employees of the Group, the nominal amount at December 31, 2018 was 203 million euros, down by 1 million euros compared to December 31, 2017 (204 million euros).

On January 11, 2019, TIM S.p.A. issued a bond for 1,250 million euros, maturing on April 11, 2024, with coupon equal to 4.000%, issue price 99.436%, repayment price 100%. The issue is part of the maturing debt optimization and refunding process.

Revolving Credit Facility and Term Loan
The following table shows committed credit lines available at December 31, 2018.

(billions of euros)	**12/31/2018**		**12/31/2017**	
	Agreed	Drawn down	Agreed	Drawn down
Revolving Credit Facility – maturing May 2019	-	-	4.0	-
Revolving Credit Facility – maturing March 2020	-	-	3.0	-
Revolving Credit Facility – maturing January 2023	5.0	-	-	-
Total	**5.0**	**-**	**7.0**	**-**

On January 16, 2018, two syndicated *Revolving Credit Facilities* existing at December 31, 2017 were closed in advance and replaced by a new syndicated *Revolving Credit Facility* for a total of 5 billion euros, maturing on January 16, 2023, currently not drawn.

At December 31, 2018, TIM had bilateral Term Loans for 1,475 million euros and overdraft facilities for 250 million euros, drawn down for the full amount.

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 7.62 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%.
For details on the maturities of financial liabilities in terms of expected nominal repayment amounts, as contractually agreed, see the Notes "Financial liabilities (non-current and current)" in the Consolidated Financial Statements at December 31, 2018 of the TIM Group.

Current financial assets and liquidity margin
The TIM Group's available liquidity margin amounted to 8,043 million euros, equal to the sum of:

- "Cash and cash equivalents" and "Current securities other than investments" totaling 3,043 million euros (4,568 million euros at December 31, 2017), also included 545 million euros of *repurchase agreements*, of which 450 million euros maturing in January 2019 and the remaining portion maturing in March 2019;
- the new Revolving Credit Facility opened in January 2018 for 5,000 million euros.

This margin is sufficient to cover Group financial liabilities falling due over the next 24–36 months.

In particular:

Cash and cash equivalents amounted to 1,917 million euros (3,575 million euros at December 31, 2017). 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 1,126 million euros (993 million euros at December 31, 2017): These forms of investment represent alternatives to the investment of liquidity with the aim of improving returns. They included a total of 558 million euros of Italian treasury bonds purchased by TIM S.p.A. (252 million euros), Telecom Italia Finance S.A. (296 million euros) and Inwit S.p.A. (10 million euros), as well as 387 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 181 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 since August 2012.

In the fourth quarter of 2018, **adjusted net financial debt** increased by 80 million euros compared to September 30, 2018 (25,190 million euros): income tax payments and the payment of 477 million euros relative to the portion of the award amount due for 2018 for rights to use the 3700-3800 MHZ and 26.5-27.5 GHZ (5G) frequencies basically offset the positive cash generation from operations and financing activities.

(millions of euros)	12/31/2018 (a)	9/30/2018 (b)	Change (a-b)
Net financial debt carrying amount	**25,995**	**26,127**	**(132)**
Reversal of fair value measurement of derivatives and related financial assets /liabilities	*(725)*	*(937)*	*212*
Adjusted net financial debt	**25,270**	**25,190**	**80**
Breakdown as follows:			
Total adjusted gross financial debt	**29,432**	**30,001**	**(569)**
Total adjusted financial assets	**(4,162)**	**(4,811)**	**649**

CONSOLIDATED DATA – TABLES OF DETAIL

The TIM Group Consolidated Financial Statements for 2018 and the comparative figures for the previous year have been prepared in accordance with the International Accounting Standards issued by the International Accounting Standards Board and endorsed by the European Union ("IFRS").
The accounting and consolidation policies adopted are consistent with those applied for the TIM Group Consolidated Financial Statements at December 31, 2017, except for the new standards adopted as of January 1, 2018, the impact of which is illustrated in the Note "Accounting Policies – Adoption of the New IFRS 9 and IFRS 15 Standards", to which readers are referred for more details.
The TIM Group, in addition to the conventional financial performance measures established by 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; the organic change in revenues, EBITDA and EBIT; EBITDA margin and EBIT margin; and net financial debt carrying amount and adjusted net financial debt.
Moreover, the part entitled "Business Outlook for the year 2019" 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 the Annual Report are reminded not to place undue reliance on forward-looking statements; actual results may differ significantly from forecasts owing to numerous factors, the majority of which are beyond the scope of the Group's control.

MAIN CHANGES IN THE SCOPE OF CONSOLIDATION

There were no significant changes in the scope of consolidation in 2018 and in 2017.

Separate Consolidated Income Statements

(millions of euros)	2018	2018 comparable (a)	2017 (b)	Change (a-b) amount	Change (a-b) %
Revenues	**18,940**	**19,109**	**19,828**	**(719)**	**(3.6)**
Other income	341	341	523	(182)	(34.8)
Total operating revenues and other income	**19,281**	**19,450**	**20,351**	**(901)**	**(4.4)**
Acquisition of goods and services	(8,186)	(8,089)	(8,388)	299	3.6
Employee benefits expenses	(3,105)	(3,084)	(3,626)	542	14.9
Other operating expenses	(1,259)	(1,236)	(1,208)	(28)	(2.3)
Change in inventories	102	102	35	67	–
Internally generated assets	570	570	626	(56)	(8.9)
Operating profit before depreciation and amortization, capital gains (losses) and impairment reversals (losses) on non-current assets (EBITDA)	**7,403**	**7,713**	**7,790**	**(77)**	**(1.0)**
Depreciation and amortization	(4,255)	(4,399)	(4,473)	74	1.7
Gains (losses) on disposals of non-current assets	(1)	(1)	11	(12)	–
Impairment reversals (losses) on non-current assets	(2,586)	(2,586)	(37)	(2,549)	–
Operating profit (loss) (EBIT)	**561**	**727**	**3,291**	**(2,564)**	**(77.9)**
Share of profits (losses) of associates and joint ventures accounted for using the equity method	(1)	(1)	(1)	–	–
Other income (expenses) from investments	11	10	(18)	28	–
Finance income	1,056	1,047	1,808	(761)	(42.1)
Finance expenses	(2,404)	(2,388)	(3,303)	915	27.7
Profit (loss) before tax from continuing operations	**(777)**	**(605)**	**1,777**	**(2,382)**	**–**
Income tax expense	(375)	(433)	(490)	57	11.6
Profit (loss) from continuing operations	**(1,152)**	**(1,038)**	**1,287**	**(2,325)**	**–**
Profit (loss) from Discontinued operations/Non-current assets held for sale	**–**	**–**	**–**	**–**	**–**
Profit (loss) for the year	**(1,152)**	**(1,038)**	**1,287**	**(2,325)**	**–**
Attributable to:					
Owners of the Parent	**(1,411)**	**(1,298)**	**1,121**	**(2,419)**	**–**
Non-controlling interests	259	260	166	94	56.6

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 Statements and all non-owner changes in equity.

(millions of euros)		2018	2017
Profit (loss) for the year	**(a)**	**(1,152)**	**1,287**
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		(5)	–
Income tax effect		–	–
	(b)	**(5)**	**–**
Remeasurements of employee defined benefit plans (IAS 19):			
Actuarial gains (losses)		19	10
Income tax effect		(5)	(1)
	(c)	**14**	**9**
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)**	**9**	**9**
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		(14)	63
Loss (profit) transferred to the Separate Consolidated Income Statement		(4)	(62)
Income tax effect		2	2
	(f)	**(16)**	**3**
Hedging instruments:			
Profit (loss) from fair value adjustments		362	(854)
Loss (profit) transferred to Separate Consolidated Income Statement		(336)	826
Income tax effect		(7)	(3)
	(g)	**19**	**(31)**
Exchange differences on translating foreign operations:			
Profit (loss) on translating foreign operations		(554)	(830)
Loss (profit) on translating foreign operations transferred to Separate Consolidated Income Statement		–	19
Income tax effect		–	–
	(h)	**(554)**	**(811)**
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)**	**(551)**	**(839)**
Total other components of the Consolidated Statement of Comprehensive Income	**(m=e+k)**	**(542)**	**(830)**
Total comprehensive income (loss) for the year	**(a+m)**	**(1,694)**	**457**
Attributable to:			
Owners of the Parent		**(1,784)**	**527**
Non-controlling interests		90	(70)

(*) Including, for 2017, “Available-for-sale financial assets”.

Consolidated Statements of Financial Position

(millions of euros)		12/31/2018 (a)	12/31/2017 (b)	Change (a-b)
Assets				
Non-current assets				
Intangible assets				
Goodwill		26,769	29,462	(2,693)
Intangible assets with a finite useful life		8,889	7,192	1,697
		35,658	**36,654**	**(996)**
Tangible assets				
Property, plant and equipment owned		14,251	14,216	35
Assets held under finance leases		1,895	2,331	(436)
		16,146	**16,547**	**(401)**
Other non-current assets				
Investments in associates and joint ventures accounted for using the equity method		16	17	(1)
Other investments		49	51	(2)
Non-current financial assets		1,594	1,768	(174)
Miscellaneous receivables and other non-current assets		2,291	2,422	(131)
Deferred tax assets		1,136	993	143
		5,086	**5,251**	**(165)**
Total Non-current assets	**(a)**	**56,890**	**58,452**	**(1,562)**
Current assets				
Inventories		389	290	99
Trade and miscellaneous receivables and other current assets		4,706	4,959	(253)
Current income tax receivables		251	77	174
Current financial assets				
Securities other than investments, financial receivables and other current financial assets		*1,466*	*1,430*	*36*
Cash and cash equivalents		*1,917*	*3,575*	*(1,658)*
		3,383	5,005	(1,622)
Current assets sub-total		**8,729**	**10,331**	**(1,602)**
Discontinued operations/Non-current assets held for sale		**–**	**–**	**–**
Total Current assets	**(b)**	**8,729**	**10,331**	**(1,602)**
Total Assets	**(a+b)**	**65,619**	**68,783**	**(3,164)**

(millions of euros)		12/31/2018 (a)	12/31/2017 (b)	Change (a-b)
Equity and Liabilities				
Equity				
Equity attributable to Owners of the Parent		19,528	21,557	(2,029)
Non-controlling interests		2,219	2,226	(7)
Total Equity	**(c)**	**21,747**	**23,783**	**(2,036)**
Non-current liabilities				
Non-current financial liabilities		25,059	28,108	(3,049)
Employee benefits		1,567	1,736	(169)
Deferred tax liabilities		192	265	(73)
Provisions		876	825	51
Miscellaneous payables and other non-current liabilities		3,297	1,678	1,619
Total Non-current liabilities	**(d)**	**30,991**	**32,612**	**(1,621)**
Current liabilities				
Current financial liabilities		5,913	4,756	1,157
Trade and miscellaneous payables and other current liabilities		6,901	7,520	(619)
Current income tax payables		67	112	(45)
Current liabilities sub-total		**12,881**	**12,388**	**493**
Liabilities directly associated with Discontinued operations/Non-current assets held for sale		**–**	**–**	**–**
Total Current Liabilities	**(e)**	**12,881**	**12,388**	**493**
Total Liabilities	**(f=d+e)**	**43,872**	**45,000**	**(1,128)**
Total Equity and Liabilities	**(c+f)**	**65,619**	**68,783**	**(3,164)**

Consolidated Statements of Cash Flows

(millions of euros)		2018	2017
Cash flows from operating activities:			
Profit (loss) from continuing operations		(1,152)	1,287
Adjustments for:			
Depreciation and amortization		4,255	4,473
Impairment losses (reversals) on non-current assets (including investments)		2,589	50
Net change in deferred tax assets and liabilities		(195)	(147)
Losses (gains) realized on disposals of non-current assets (including investments)		1	(11)
Share of losses (profits) of associates and joint ventures accounted for using the equity method		1	1
Change in provisions for employee benefits		(208)	437
Change in inventories		(99)	(30)
Change in trade receivables and net amounts due from customers on construction contracts		(49)	379
Change in trade payables		(163)	(605)
Net change in current income tax receivables/payables		(210)	(515)
Net change in miscellaneous receivables/payables and other assets/liabilities		(178)	80
Cash flows from (used in) operating activities	**(a)**	**4,592**	**5,399**
Cash flows from investing activities:			
Purchase of intangible assets		*(3,647)*	*(2,292)*
Purchase of tangible assets		*(2,831)*	*(3,477)*
Total purchase of intangible and tangible assets on an accrual basis		(6,478)	(5,769)
Change in amounts due for purchases of intangible and tangible assets		*1,947*	*455*
Total purchase of intangible and tangible assets on a cash basis		(4,531)	(5,314)
Capital grants received		108	82
Acquisition of control of companies or other businesses, net of cash acquired		–	–
Acquisitions/disposals of other investments		(3)	(4)
Change in financial receivables and other financial assets (excluding hedging and non-hedging derivatives under financial assets)		96	466
Proceeds from sale that result in a loss of control of subsidiaries or other businesses, net of cash disposed of		–	–
Proceeds from sale/repayment of intangible, tangible and other non-current assets		16	30
Cash flows from (used in) investing activities	**(b)**	**(4,314)**	**(4,740)**
Cash flows from financing activities:			
Change in current financial liabilities and other		394	(1,188)
Proceeds from non-current financial liabilities (including current portion)		2,546	2,630
Repayments of non-current financial liabilities (including current portion)		(4,426)	(3,426)
Changes in hedging and non-hedging derivatives		(110)	997
Share capital proceeds/reimbursements (including subsidiaries)		22	16
Dividends paid		(256)	(235)
Changes in ownership interests in consolidated subsidiaries		–	(4)
Cash flows from (used in) financing activities	**(c)**	**(1,830)**	**(1,210)**
Cash flows from (used in) Discontinued operations/Non-current assets held for sale	**(d)**	**–**	**–**
Aggregate cash flows	**(e=a+b+c+d)**	**(1,552)**	**(551)**
Net cash and cash equivalents at beginning of the year:	**(f)**	**3,246**	**3,952**
Net foreign exchange differences on net cash and cash equivalents	**(g)**	(63)	(155)
Net cash and cash equivalents at end of the year:	**(h=e+f+g)**	**1,631**	**3,246**

Additional Cash Flow information

(millions of euros)	2018	2017
Income taxes (paid) received	(739)	(1,100)
Interest expense paid	(1,978)	(2,899)
Interest income received	871	1,636
Dividends received	2	1

Analysis of Net Cash and Cash Equivalents

(millions of euros)	2018	2017
Net cash and cash equivalents at beginning of the year:		
Cash and cash equivalents – from continuing operations	3,575	3,964
Bank overdrafts repayable on demand – from continuing operations	(329)	(12)
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	–	–
	3,246	**3,952**
Net cash and cash equivalents at end of the year:		
Cash and cash equivalents – from continuing operations	1,917	3,575
Bank overdrafts repayable on demand – from continuing operations	(286)	(329)
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	–	–
	1,631	**3,246**

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, 2018.

OTHER INFORMATION

Average salaried workforce

(equivalent number)	2018	2017	Change
Average salaried workforce – Italy	45,058	45,648	(590)
Average salaried workforce – Outside Italy	9,365	9,298	67
Total average salaried workforce [(1)]	**54,423**	**54,946**	**(523)**

(1) Includes employees with temp work contracts: the average headcount was 0 in 2018 versus 2 in 2017 (1 in Italy and 1 outside Italy).

Headcount at year end

(number)	12/31/2018	12/31/2017	Change
Headcount – Italy	48,005	49,689	(1,684)
Headcount – Outside Italy	9,896	9,740	156
Total headcount at year end [(1)]	**57,901**	**59,429**	**(1,528)**

(1) No employees with temporary work contracts at 12/31/2018 and 12/31/2017.

Headcount at year end – Breakdown by Business Unit

(number)	12/31/2018	12/31/2017	Change
Domestic	48,200	49,851	(1,651)
Brazil	9,658	9,508	150
Other Operations	43	70	(27)
Total	**57,901**	**59,429**	**(1,528)**

SOCIAL AND ENVIRONMENTAL IMPACT OF OPERATIONS AND THEIR ECONOMIC ASPECTS

Environmental and social changes underway pose economic risks, but also business opportunities for TIM, that has a leading role in the economy of the main countries where it operates; In an increasingly digital world, the ability to find a sustainable dimension among the new business models, new service classes, new operating procedures and new professional dimensions that are transforming the way we live and work and reshaping systems and economic relations is of strategic importance.
The analysis process conducted in 2018, in order to identify material issues relative to the social, environmental and economic impacts business activities have both in and outside the Company, showed that opportunities related to the digital transformation of companies, the public administration and citizens' services are material issues for the Group. The analysis also showed how essential it was for TIM to play a lead role in developing digital expertise and knowledge in its own dimension and in a capacity as enabler for a new digital society. There has also been a renewed focus on human rights, in all forms, and on environmental issues, such as reducing greenhouse gases, which the Group can contribute to with products that enable businesses and households to reduce their energy consumption, and with services to help cities lower their own emissions.
The following are a few cases in which social and environmental elements have direct economic impacts on TIM and, lastly, a description is provided of the materiality analysis, the details of which are provided in the Group's Sustainability Report/Disclosure of non-financial information.

IMPROVING THE EFFICIENCY OF ENVIRONMENTAL COSTS - REDUCING ENERGY CONSUMPTION

TIM is one of the biggest electricity users nationally, consuming around 1.87[1] TWh of energy per year.
Technological developments continued in 2018, related mainly to the NGAN (Next Generation Access Network) implementation plan and LTE technology, are generally leading to an increase in energy consumption. 2018 in particular saw a significant boost given to the technological development of the fixed-line and mobile network and significant growth in new installations in the internal and external market in the field of Information Technology, with a consequent increase in energy demand.
TIM pro-actively managed to offset its energy consumption related to technological development, through continual research into efficiency and the optimization of solutions adopted, achieving:

- net total decrease in energy consumption in 2018 of the Domestic Business Unit approximately 28 GWh compared to 2017;
- an increase in own production of electricity through the co-generation and tri-generation of approximately 25 GWh by the Domestic Business Unit in 2018, compared to the previous year, for an output of around 132 GWh, thanks to optimized plant operation.

In economic terms, the overall savings of the Domestic Business Unit from the reduction in consumption and own energy produced can be estimated to be approximately 7.3 million euros over the course of the year.

During the year, TIM maintained ISO 50001 certification for sites covered by the Energy Management System. In 2018, certification was extended considerably: besides the "historic" site in Bologna, in via Stendhal and the Data Center in Rozzano 1 and 2, certification was also obtained for Rozzano 3 - thus completing the entire Data Center at Rozzano - and for the exchange in the center of Piacenza, as well as the Data Processing Centers at Padova and Bologna Roveri. TIM therefore achieved the objective it had set the previous year to add an exchange to the certification on top of the already certified buildings. The energy efficiency of TIM was also recognized through the awarding of Energy Efficiency Certificates (EEC, also known as White Certificates): During 2018, 18,000 EECs were awarded, sold with revenues equal to approximately 6 million euros. As proof of its commitment to energy, TIM received the 2018 Energy Manager award for the tertiary sector from FIRE (the Italian Federation for a Rational Use of Energy) in association with ENEA and Key Energy.

[1] This does not include the electricity used by OLOs.

EFFICIENCY IMPROVEMENT PROCESS, SOCIAL COST OPTIMIZATION – ENGAGEMENT WITH WORKERS' REPRESENTATIVES

TIM pays much attention to listening and involving workers' representatives in many areas of work, including reorganization processes.
The search for constant dialog and discussion with union representatives led to major agreements being reached, aimed at reconciling the needs of the business with those of the people who work in the company. This has allowed agreements to be reached for the **implementation of efficiency improvement plans that can mediate between the needs of the workers and those of the company.** For example, a complex negotiation process involving the leading trade union organizations was completed in late 2015 with the signing of a framework agreement to manage staff redundancies.
Like its predecessors, the agreement provided for the use of a mixture of integrated instruments and measures that are not socially traumatic but that are economically sustainable:

- these include the use in 2016–2017 of Defensive Solidarity Contracts, as required by the Jobs Act, extended up to June 2019, combined with the strategic role of the training lever, as a pivotal element to encourage professional retraining and requalification in order to counteract redundancies. Defensive Solidarity Contracts are agreements that provide for working hours to be reduced in order to avoid downsizing. For the workers to whom the contract will be applied, provision is made for INPS (Istituto Nazionale della Previdenza Sociale) to make up part of the remuneration not received due to the reduction in working hours. In 2018, the benefit on the cost of labor obtained from solidarity contracts was 81 million euros for the Group (117 million euros in 2017), all relating to the Parent Company;
- redundancy in accordance with Law 223/91 and Article 4 of the so-called "Fornero Law"[4], with participation on a voluntary basis.

GROWTH OPPORTUNITIES

ICT services for environmental protection and improving citizens' quality of life are seeing positive growth rates.
TIM customers already have a range of solutions available to them to cut energy consumption, reduce red tape, and increase security for citizens.
TIM's services for the environment (described on timbusiness.it) include:

- TIM ENERGREEN, the energy management service platform which allows businesses and public organizations to monitor their consumption and manage it efficiently and effectively through locally placed sensors. Energy saving can be estimated to be approximately 10% only as regards the adoption of metering & reporting functions. For TIM ENERGREEN alone, sales in 2018 amounted to approximately one million euros, increasing by 30% over 2017;
- videoconferencing solutions, a market which is extremely dynamic, reported a turnover of approximately 11 million in 2018. Available in different commercial formulations, suitable for the requirements of small, medium and large companies, with service levels and quality standards ranging from High Definition to telepresence, videoconferencing services reduce the amount of travel, and therefore CO_2. Web-based solutions in particular are increasing both the availability of videoconferencing services among SMEs and their penetration among larger companies, contributing to reducing emissions;
- vertical solutions - from telemedicine to smart agriculture - are also available on the market, directly or indirectly contributing to reducing consumption and emissions by optimizing and improving the efficiency of activities.

MATERIALITY ANALYSIS

As already stated, in compliance with Italian Legislative Degree 254/2016 and the requirements of the Global Reporting Initiative Standards, TIM conducted a materiality analysis in 2018 with the aim of identifying material topics as regards the socio-environmental and economic impacts of its business activities both within and outside the company.

4 Law 92/2012 www.gazzettaufficiale.it/eli/id/2012/07/03/012G0115/sg

Process to identify the material topics

In keeping with the methodology started in 2017, TIM assessed the validity of the material issues identified the previous year, adopting evolved semantic analysis techniques, to analyze a larger number of information sources in order to identify and map sector topics, and also continued its analysis of big data, in order to collect external points of view.

The taxonomy[5] to adopt in the semantic engine was updated, using the same sustainability and digital references as those in 2017, in more recent versions and expanding the number. In particular:

- Global Reporting Initiative Standard, ISO 26000, Sustainable Development Goals and specialist assessments[6];
- Italian Digital Agenda, Objectives of the European Digital Single Market and dedicated indexes,[7] besides regulatory references which are relevant for TIM and its stakeholders.

The semantic engine analyzed all the national and international sources of information, public and non-public sources, internal and external to TIM[8] with different interactions leading to the definition of a list of topics based on the occurrences[9] found in the various documents and establishing hierarchies between the topics. The material topics of the sector were identified through the occurrences, which were compared with the topics that emerged from the 2017 'tree'.

In order to obtain the significance of the material topics for the company, an internal questionnaire was given to a significant sample of representative contact people from all the company's departments.
As stated, collecting external points of view was facilitated by the use of innovative tools such as semantics and big data analysis, [10]as well as digital collaboration tools[11]".
At the end of this initial screening, the company was able to draw up a list of topics representing the following macro areas:

- correctness of corporate conduct;
- stakeholder engagement;
- integrating economic, social and environmental aspects in governance and the strategic plan;
- supporting the development of digital skills in the community (in schools, in the public administration, in businesses);
- developing the resilience of areas to disasters and calamities;
- consolidating social and environmental aspects in the supply chain;
- managing the workforce and employment development;
- managing the health and safety of workers;
- developing personnel competencies;
- service quality;
- online protection of minors (cyber bullying, child pornography, gambling);
- safeguarding privacy and personal data protection and security;
- contributing to and taking initiatives to fight climate change in company policies, strategies and processes;
- reducing the environmental impact of TIM's operations;
- increasing the use of energy from renewable sources in company processes;
- electromagnetism;

[5] Each taxonomy is made up of interrelated concepts and keywords with different correlation and significance levels. Each taxonomy was constructed using both Italian and English terms.
[6] For example RobecoSam (Dow Jones Sustainability Index), FTSE4good and Sustainalytics questionnaires.
[7] For example, the Digital Economy Society Index which monitors different aspects of the digitization level of the individual European countries.
[8] For example: The "Piano Nazionale italiano per l'Agenda 2030" (Italian National Plan for the 2030 agenda) of the Italian government, the "Ernst & Young Megatrends report 2015", the "Fair and Sustainable Well-Being in Italy 2016" (BES) report promoted by the National Council for Economy and Labor (CNEL) and the National Institute for Statistics (ISTAT).
[9] The occurrences identify the number of times that a concept (or a specific term) is detected within the document by the semantic engine and provide an indication of the significance of the topic detected in the context of the document.
[10] In keeping with activities of the previous years, stakeholders involved in engagement activities were surveyed, in addition to many other entities, for a total of approximately 500, concerning 8 categories of TIM stakeholders. Three types of sources were identified for the analysis:
- documents issued by stakeholders (in particular sustainability reports);
- statements issued on company websites;
- discussions on social networks concerning the themes identified thanks to TIM Data Room activities.

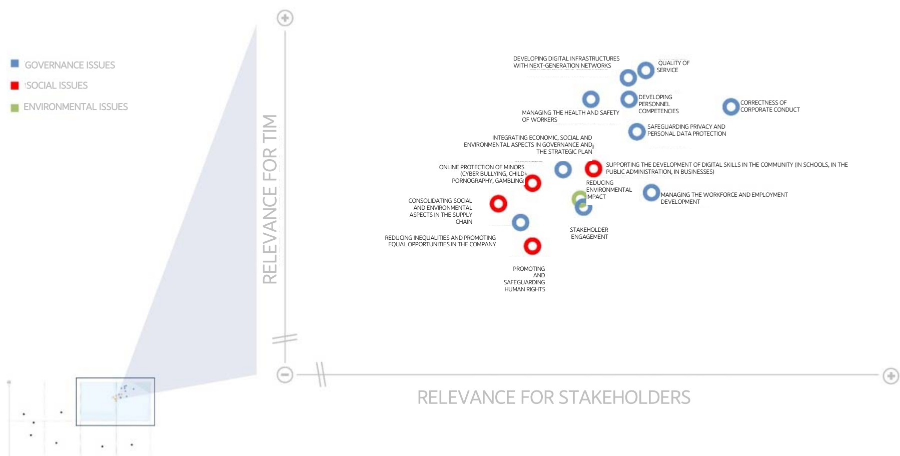
[11] Digital instruments were used for engagement. In particular:
- a questionnaire was given to stakeholders, via the platform, from the categories: customers, suppliers, competitors, institutions, environment, community, persons, also collecting suggestions and feedback;
- TIM's vendor assessment platform was used to specifically focus on the category of suppliers;
- information on TIM customers' views on the proposed issues was obtained from the TIM.com site.

- digital inclusion in society;
- developing digital infrastructures with next-generation networks;
- promoting and safeguarding human rights;
- reducing inequalities and promoting equal opportunities in the Company.

This approach has enabled TIM to expand stakeholder engagement and dynamically observe topics in order to measure their trends over time.

Results at a glance

At the end of the analysis, TIM attributed a relevance score based on the occurrence of the topics[12].
The activity resulted in the following **materiality matrix:**



The key issues for the Group and its stakeholders reflect the Sustainable Development Goals which TIM believes it can help achieve to a greater extent through its own personnel, technologies and services, adopting business policies that promote and safeguard human rights and the environment.
Specifically, the relevant Goals are:

- 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. 16: Peace, justice and strong institutions.

[12] Scores ranged from 1 to 5, where 1 is the minimum frequency, 5 the maximum frequency, 3 the average frequency (calculated from the average occurrence of the topics taken into consideration). 2 and 4 are attributed in proportion to the minimum, average and maximum scores. Finally, the final score was calculated, weighted by the significance attributed to each source according to the different time periods covered in the analysis.

“**Service quality**” is the topic which registered the greatest increase, overall, compared to 2017. “**Fair corporate conduct**” was instead the most relevant issue for external stakeholders; “**Safeguarding privacy and personal data protection and security**”, “**Developing digital infrastructures with next-generation networks**” and “**Supporting the development of digital skills in the community (in schools, in the public administration, in businesses)**” all ranked higher than 2017.
"**Reducing the environmental impact of TIM's operations**" is one of the most significant topics due to the important contribution TIM can provide through its solutions as a leading ICT company and through its adoption of strategies and policies to contain its energy consumption and greenhouse gas emissions.

Validation and Review

The validation of the topics and of the entire materiality analysis process was carried out by the Sustainability Reporting, Monitoring and Relationship (SRMR) division, with the support of RE2N, a company that develops innovative tools for sustainability and Shared Value, and TIM Data Room. 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 analyses carried out, updated in the following year, to specific stakeholder engagement activities.

RESEARCH AND DEVELOPMENT

Approach to innovation, choice of topics, innovation governance process

Innovation, understood as a research and development activity for innovative technologies and services, processes and business models, represents a key factor in the company's ability to keep up with the profound transformations brought about through ICT, as well as a necessary asset acting as a driving force in this evolution in terms of its customers and the national system, helping to overcome the socio-cultural barriers that limit the opportunity to participate in the information society and enjoyment of the relative benefits.
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 terms of role, both technological and business-based innovation are also confirmed in 2018 as the central element to the response to change in the technological, market and competitive context. In line with this, the Group has taken action in several ways:

- by continuing the action, underway for several years now, to strengthen internal innovation lines, focusing laboratory activities and research groups on key aspects of the development of the fixed and mobile network towards future **5G standards and ultrabroadband**, and issues concerning service platforms and new operations systems;
- by confirming the drive towards the "**Open Innovation**" principle with the aim of maximizing the benefits deriving from the integration of innovative contributions generated internally with external sources of innovative ideas;
- by interacting with the start-up world in order to catalyze the latter's capacity for innovation through the **TIM #Wcap acceleration program**;
- by implementing initiatives which allow for the growth of co-creation ecosystems like the **IoT Open Lab**, a laboratory dedicated to the development of IoT solutions based on key technologies for the Telco Operator with a view to open innovation.

More specifically, innovation management is overseen, with different missions, by the **Technology Architectures & Innovation Department** and by engineers, but involves various internal and external stakeholders of 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 of digital services;
- **research centers and universities**, for cooperation and joint projects. In 2018, 18 research contracts came into effect, for a total value of 840,000 euros;
- **Standardization Bodies and Associations**: TIM is still very active within the main Standardization Bodies and Associations, with 27 memberships in 2018, for a cost of 900,000 euros. On a national, but above all international, level there is a broad circle made up of standardization bodies (ETSI, ITU, CENELEC and 3GPP among others), associations (GSMA and NGMN to name the major ones), alliances (oneM2m and BBF), and telco open communities (ONF, OPNFV and CORD), which play a fundamental role in the evolution of the TLC industry for networks, platforms and services;
- **Ministries** (Ministry of Economic Development and Ministry of Education, Universities and Research), the **European Union and public authorities** (CNR and local authorities) for projects funded through participation in competitive tenders, and partnership initiatives. In particular, two specific consortiums were set up in 2018. KIC U-Move, the Community for Knowledge and Innovation in urban mobility, promoted by the European Institute of Innovation and Technology (EIT), with the support of the EU, in order to promote urban mobility, and Competence Industry Manufacturing 4.0 (CIM 4.0), set up in December 2018 after the award of the Ministry of Economic Development Industry 4.0 contract, to help fast track the process to transform a considerable section of the production system at local and national level, and act as an integrated hub for the dissemination of expertise and good practices, offering training and on-site experience, in technological and industrial sectors in Piedmont and other Italian regions. The Ministry of Economic Development will fund the consortium projects over the next three years.

TIM's technological evolution is based on CTO Technology Strategy, which identifies technology strategy in terms of guidelines, specific technologies and roadmaps to adopt in the long term. The three-year technological plan is the reference policy for the Group and includes the technological evolution plans of subsidiaries. The plan sets out the main external factors that may affect company strategies (regulation, standards, suppliers, other market operators) and establishes the company entities involved, the applicable technological architecture and evolution of specific technologies, along with relative roadmaps for deployment or assessment. The qualitative and/or quantitative goals address the long term and 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 TMF's reference standard E-Tom.

Overall, in 2018 TIM committed around 1,300 people to working on technological innovation and engineering in Italy, for an overall investment for the Company of 1,165 million euros, which is equivalent to around 8% of revenues.

Activities for the future of mobility and networks: initiatives for 5G

In October 2018, the tender of the Ministry of Economic Development for the award of user rights to 694–790 MHz, 3600–3800 MHz, and 26.5–27.5 GHz band frequencies for 5G mobile telecommunications services was completed, with an overall undertaking for TIM of 2,399 million euros. The rights to 3600-3800 MHz and 26.5-27.5 GHz band frequencies were assigned on a definitive basis in January 2019, while the rights to 694-790 MHz band frequencies will be made available in July 2022.
5G allows not only faster speeds than those possible with earlier technologies, but also a multitude of services with very different requirements, in particular in the mMTC[13] and URLLC[14] areas.
TIM has followed the development of 5G from 2012, actively participating in the definition of international standards as well as European consortia and projects which laid the foundations for the system and contributed to the introduction of innovative use cases and applications. In particular, TIM participated in the European Horizon 2020 METIS and METIS II projects included in the 5GPPP European initiative and in another 12 projects concerning all the main technological turning points of 5G, collaborating with the main providers of network technologies and terminals through specific MoUs.
The operational activities for technological development and 5G trials are accompanied by structured technical communication ranging from publishing to promotion with events of a scientific scope. Many initiatives dedicated to 5G took place during 2018, including the inauguration of the first Innovation Hub in Rome, which is the very cornerstone of the agreement. Another important event was held in Turin, at Palazzo Madama, with two days when TIM opened its doors to the public with live demos of 5G services, including automotive, digital tourism, Industry 4.0 and smartcity services, which will soon be available on the network. In Turin, TIM will develop the first 5G network in Italy, thanks to an agreement with the local authorities, following on from three important projects started in 2017 - Torino 5G, San Marino 5G and Bari-Matera 5G - for 5G coverage of these municipalities, involving over 55 partners.
In 2018, these projects continued, consolidating activities to provide coverage, with San Marino becoming the first European microstate to be covered by 5G.Research and partnerships with organizations and universities involved for Bari-Matera were also set up and activities will continue in 2019.
Over the next few years, 5G will be the revolution that everyone can experience in their daily lives.

Main applications will target:

- the automotive and transport sector with vehicle-to-vehicle and vehicle-to-infrastructure connectivity, aimed at increasing safety and energy saving; connectivity for infotainment; self-driving vehicles and related aspects;
- industry 4.0, i.e. the digital transformation of industry; the systematic addition of sensors to products, to produce data to improve production and processes; the evolution of the supply chain to enable real-time management of relations with suppliers and end customers;
- the world of new media, with changes in user trends and new formats, including virtual and enhanced reality solutions;
- healthcare, with remote assistance, to enable specialists to assist patients with chronic diseases from afar;
- public safety, with mobile video surveillance solutions that can integrate data and images for a far broader vision, guaranteeing greater public security levels than the past;
- assistance for tourists who can have information and multimedia content on their visits at their fingertips, thanks to sensors on their smartphones;
- the information sector in general which can ensure "live" connections with a better video quality without complex instruments, thanks to a greater bandwidth availability, combined with a reduced latency.

[13] Massive Machine Type Communication
[14] Ultra Reliable and Low Latency Communications

IoT Open Lab

In November 2016, TIM opened the IoT Open Lab, which became fully operational in 2017, at its base in Turin. Its purpose, according to the methods inherent in Open Innovation, is to support the development of IoT solutions based on key technologies for Telco Operators. In particular, the IoT Open Lab acts as a business accelerator to support companies in entering the ecosystem of technologies standardized by the 3GPP and, as regards the current period, Narrow Band IoT technologies. In 2018, more than 180 companies and customers visited the Lab, and among them, around fifty construction companies agreed a partnership with TIM allowing them to use the Lab's facilities free of charge.

Research with Universities

The Open Innovation activities (understood as R&D participatory behavior) for 2018 were largely concentrated on the new Innovation model pursued at TIM and guided by top management. Research and development activities in 2018 focused on infrastructure issues and application solutions with a particular emphasis on opportunities afforded by 5G.
As already stated, the financial commitment amounted to 840,000 euros, involving 70 TIM technicians and 60 university researchers dedicated to specific research, including:

- research projects on cognitive computing, artificial intelligence solutions and 5G in partnership with Turin Polytechnic;
- the academic research partnership as part of the Ministry of Economic Development Bari-Matera 5G project involved TIM, together with academic organizations, in the full 5G coverage of cities scheduled for 2019, with 10 application areas started and over 70 use scenarios. In 2021, the entire metropolitan area of the 2 cities will be covered;
- research projects started also in partnership with the University of Catania under the technology/innovation plan to fast-track the market delivery of the entire IoT ecosystem and 5G development activities.

Funded research activities

TIM has always been active in innovative and research initiatives funded by the European Commission and by national public administrations. This has enabled it to obtain funding of nearly 14 million euros over the 2016-2018 period and to take part in projects with a high innovation content, thanks to which it has been able to develop and consolidate its own know-how in sectors with a fast-paced technological evolution, working together with leading European, North American, Korean and Japanese research centers. In this area, it has been involved in activities carried out as part of funded projects concerning 5G, virtualization and intelligent mobility services, furthering its expertise and gaining a prominent position in the international sphere.

Patents and Intellectual Property Rights

During 2018, the Group's portfolio of patents grew to include new patents filed (TIM ranks sixth as the Italian company for number of European patents filed), and was also streamlined, eliminating some patents that were no longer worth investing in, given advances in technological progress.
The patenting areas relate to the whole ICT sector, with areas of excellence in the mobile sector, where TIM is one of the six leading Telcos worldwide.
Specifically, TIM's portfolio of patents included 3,256 patents held by TIM in 2018, of which 2,754 granted in 41 countries around the world and 502 published in 15 patent offices, relative to some 600 inventions.
A total of 11% of the patented inventions stem from work with universities and research institutes, from 1997 to the present day.
Participation in a Patent Pool for LTE with a patent essential for the relative standard should also be noted. The Patent Pool acquired new participants over the course of the year (bringing the current total to 19 license-holders) and granted several licenses to 42 companies.

RESEARCH AND DEVELOPMENT IN BRAZIL

The **Innovation & Technology Department**, headed by the CTO of TIM Brasil, is responsible for Research and Development (R&D) activities. Its main areas of focus include: identifying technological innovation for the network and the evolutionary needs for new technologies and devices, setting architectural guidelines, and the development of strategic partnerships, so as to exploit new business models and guarantee the evolution of the network infrastructure in line with the business strategy. The organizational structure of Innovation & Technology is currently made up of 25 people in the Networks area, including telecommunications engineers, electrics and electronics engineers, IT experts and other technicians of various origins, competences and experiences, who cover all innovative needs and provide support to R&D.

In terms of infrastructure, one important result was the establishment of **TIM Lab**, a multi-purpose test environment focusing on innovation, which is able to guarantee the assessment of innovative services, products and technologies, certifying their functional efficiency and performance and the development of new models and configurations, consolidating the innovation flow. TIM Lab plays a strategic role in providing support for the conduct of Credibility Test, Trials and Proof of Concept (POC), for the validation of the services in collaboration with the main suppliers of technology and partners, through the sharing of knowledge and the technological infrastructures for interoperability tests, the assessment of capacity and the definition of technical requirements; in synergy with the R&D department, it facilitates innovation and promotes collaborations with universities and research institutes.

In January 2017, a **new TIM Lab Innovation Center** was opened at the Corporate Executive Offices complex in Barra da Tijuca, in the state of Rio de Janeiro: a building with a surface area of 650 square meters, able to accommodate more than 60 people. This new office hosts technicians and researchers and can be seen as a space of innovation open to new opportunities and the development of innovation for the Brazilian telecommunications market, also operating as a national reference point for R&D activities.

In 2018, more than 180 validation and innovation projects were concluded. Moreover, new technological areas, such as transport and fixed access solutions, were included in the range of initiatives relating to innovation and R&D. In this regard, more than 22 million reais were invested in the 2016/17 period, also for new lab premises, in addition to the 4 million reais in 2018; based on the 2019-2021 plan, further investments of 12 million reais have been allocated.

The Innovation & Technology department continued to work on projects and initiatives aiming to ensure the evolution of the business of TIM Brasil through the recommendation of sustainable, efficient network platforms and "disruptive" models, including anticipating the availability of new services. These projects can be divided into the following groups:

- new generation networks;
- positive environmental and social impacts;
- Open Lab initiatives.

Next generation network projects

The reassignment of the 1,800 MHz, 850 MHz and 2,100 MHz bandwidths from 2G/3G to 4G gives TIM Brasil three important competitive advantages:

- reduction of costs for LTE deployment;
- expansion of the LTE coverage area and activation of the Carrier Aggregation strategy, improving the customer experience through higher "throughputs";
- improved 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.

Another important consideration in this scenario is that over 94% of current LTE terminals are already compatible with the 1,800 MHz and 2,600 MHz bandwidths, and with the other bandwidths available; hence, implementation of the LTE multilayer is proving to be an excellent strategy that benefits from the dissemination of devices.
The deployment of the LTE 700 MHz layer will result in significant expansion of the coverage and indoor penetration, promoting the presence of LTE throughout the national territory and consolidating TIM Brasil's leadership in LTE. The actual roll-out will follow the rules dictated by the EAD[15] in order to manage the spectrum cleaning and avoid interference problems with the analogue TV transmission service. 82% of the LTE devices employed by the current users of TIM Brasil services are enabled for the 700 MHz bandwidth.
At the end of 2018, over 1,400 cities could test the LTE 700 MHz coverage.

[15] Entidade Administradora de Processo de Redistribuição e Digitalização de Canais de TV e RTV

In 2015, as part of the IP Multimedia Network Evolution, three tests were carried out at the Innovation Lab to assess the IMS[16]. In 2016 the tests were extended to live networks, allowing TIM Brasil to set up the functional infrastructure to provide services such as Voice over LTE (VoLTE), Video over LTE (ViLTE) and Wi-Fi Calling, entirely laid on IP and activated by an IMS platform. In 2017 TIM launched VoLTE high definition voice call services on the market, providing call services without the need to pass through switched lines. At the end of 2018, over 2,500 cities could use this service.

Projects with positive environmental and social impacts

The expansion of "4G RAN sharing", in partnership with other Brazilian mobile operators, aims to define the architectural requirements, technical assumptions and specifications for the "LTE RAN sharing" solution, optimizing the network resources and costs. In this regard, TIM has pursued and considered RAN Sharing Solutions since 2007. Another strong motivation lies in coverage issues and timing in compliance with regulatory requirements. The RAN Sharing agreement allows TIM to promote the evolution of LTE development in rural areas of Brazil, with effective sharing of access and backhauling. At present 4G RAN Sharing relies on two national partners, improving the possible benefits and efficiencies of this technical model.
Following continuous testing activities, savings and energy efficiency solutions were introduced, which primarily concern the low traffic periods for the 2G, 3G and 4G access layers. The energy consumption recorded for the site, dependent on the access technology and coverage conditions, showed a reduction of up to 10%. According to TIM Brasil, the large-scale introduction of IoT could drastically change the mobile market in that it exploits the creation of services and represents a potential tool for agricultural applications, connected vehicles, tracking solutions, and social and healthcare support. In 2017 TIM invested in TIM Lab and in the E2E sector, improving existing smart parking applications and activating the connection of new applications, preparing the terrain for future NB-IoT and LTE-M commercial networks, which were launched in 2018 in the city of Santa Rita do Sapucai.
Since 2018, TIM Brasil together with Nokia and BR Digital, has offered connectivity services in rural areas, not only enabling agrobusiness commercial applications, but also the digital inclusion of sector employees and residents in small towns.

Open Lab initiatives

In 2017 TIM Brasil joined the Telecom Infra Project (TIP), an initiative founded by Facebook, SK Telecom, Deutsche Telekom, Nokia, Intel and other companies, which aims to identify new approaches to the creation and deployment of telecommunications network infrastructure. TIM Brasil has transformed TIM Lab into the first TIP Community Lab in Latin America, which will be used by TIP members to create universal standards relating to solutions, initially for transport networks, in order to overcome the challenges linked to the interoperability of the different providers. This initiative represents an open and collaborative approach to the development and testing of new technologies and solutions.
Moreover, in October 2018, TIM joined up with a new work team in the Telecom Infra Project (TIP) together with Vodafone and other mobile operators, called DCSG (Disaggregated Cell Site Gateway). This project is an opportunity to define a common set of requirements to produce devices that are more open, flexible and cost-effective.

16 IMS: IP Multimedia Subsystem, solutions focused on functional tests, specific analyses and interoperability with the so-called "legacy system"

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 (statement) 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 PwC S.p.A..
The Consolidated Non-Financial Statement is available in the sustainability section of the website www.telecomitalia.com.

EVENTS SUBSEQUENT TO DECEMBER 31, 2018

For details of subsequent events, see the specific Note "Events Subsequent to December 31, 2018" in the Consolidated and Separate Financial Statements as at December 31, 2018 of the TIM Group and TIM S.p.A., respectively.

BUSINESS OUTLOOK FOR THE YEAR 2019

The strategy of the TIM 2019-2021 Plan marks a major break with the past, focusing on execution as a key factor in TIM's organic transformation, together with strategic initiatives capable of freeing up value. The Plan's objectives are the relaunch of the Domestic business, with a focus on the quality, size and technical skills of TIM, and the strengthening of business in Brazil, taking advantage of growth opportunities (e.g. residential broadband and ultra-broadband connectivity) and continuing the repositioning of customers towards postpaid offers, leveraging 4G leadership.

On the **Domestic market** the Consumer segment begins with consolidated competitive advantages (quality, size and technical skills), to bring rationality to both the Fixed and Mobile market, using network quality and product reliability to leverage optimized profitability and expand the range of offered services. By 2021, ultra-broadband penetration will reach 80% of the broadband customer base (up from 45% in 2018).
The **Business segment** will put itself forward as a reference supplier and top ICT quality partner for SMEs and as a leading ICT solutions provider for large customers. Revenues from ICT services will grow significantly, reaching 48% of total revenues of the Large Business segment by 2021 (up from 39% in 2018).
The **Wholesale segment** will defend its access market share and confirm its leadership in ultra-broadband coverage. Fiber access will double compared to 2018.
The **Telecom Italia Sparkle group** will expand its infrastructure and grow enterprise networking and the cloud; partnerships to accelerate growth and expand strategic options will also be assessed.
In **Brazil**, the mobile customer base will continue to migrate towards postpaid offers, increasing from 36% in 2018 to around 50% in 2021. The fiber development program (backbone, backhauling and FTTH) will also continue and residential ultra-broadband customers will be at 1.2 million in 2021. Cost rationalization and digital transformation will be a leverage to support margin improvement, with an EBITDA margin of at least 40% by 2020.
TIM's strategy aims to reduce debt through cash generation growth in the domestic market, achieved through stabilization of revenues, a streamlined costs structure and working capital and invested capital optimization. A dedicated department will ensure cost efficiencies are made and, through already identified actions, will allow for a reduction in the reducible cost base of 8% in 2021 compared to 2018; invested capital optimization will also take place through network sharing. To this end TIM and Vodafone Italia signed a memorandum of understanding in February 2019 and agreed to start exclusive negotiations on a partnership project to share the active component of the 5G network, assess the possibility of sharing active devices on the 4G network and expand the current passive sharing agreement.
The technological approach outlined in the new TIM plan puts modernization, simplification and artificial intelligence at the heart of future capital expenditure. TIM will build a completely new and automated 5G network, continuing with the disposal and consolidation of redundant assets (e.g. data centers and exchanges).

The main financial targets of the 2019-2021 plan are as follows, it should also be remembered that the 2019 forecasts assume an operating performance affected by competitive dynamics that have already impacted – increasingly – the whole of 2018. These dynamics will have full effect on 2019, influencing the "Year on Year" comparability of the coming periodic financial reports and will determine the highlight of a recovery trend only during the second part of the year.

TIM Group:

- Total Equity Free Cash Flow (2019/2021) of around 3.5 billion euros with the possibility of further growth through non-organic activities currently not included;
- Group debt of around 22 billion euros in 2021 before non-organic operations (on the same accounting basis as 2018).

Domestic:

- Slightly declining revenues from services (low single-digit) during the period with the aim of stabilizing them from 2020;
- Organic EBITDA in low single-digit/mid single digit decline in 2019 and low single-digit growth for both 2020 and 2021;
- Capex equal to about 3 billion euros per year.

Brazil:

- Revenues from services growing by 3-5% in 2019 and mid single-digit growth in 2020 and 2021;
- EBITDA growth (mid/high single digit) in 2019 with the confirmed EBITDA margin target of at least 40% in 2020;
- Cumulative capex totaling around 12.5 billion reais in 2019/2021.

MAIN RISKS AND UNCERTAINTIES

Risk governance is a strategic tool for value creation. The TIM Group has adopted an Enterprise Risk Management Model based on the methodology of the Committee of Sponsoring Organizations of the Treadway Commission (ERM CoSO Report), which enables the identification and management of risk in a uniform manner across the Group companies, highlighting potential synergies among the actors involved in the assessment of the Internal Control and Risk Management System. The ERM process is designed to identify potential events that may affect the business, to manage risk within acceptable limits and to provide reasonable assurance regarding the achievement of corporate objectives.
The business outlook for 2019 could moreover be affected by risks and uncertainties caused by a multitude of factors, the majority of which are beyond the Group's control.
These include, but are not limited to, the change in market context, entry of new potential competitors in the fixed and mobile field, start of proceedings by the authorities and delays in new strategy implementation, with effects – at this moment not foreseeable – in terms of strategic choices and development timing of the already announced triennial objectives, which may lead, in some cases, to a different progression in timing in respect of that initially foreseen or achievement of the objectives through new and more joined-up methods.
The main risks affecting the business activities of the TIM Group, which may impact, even significantly, the ability to achieve the objectives of the Group are presented below in an analytical way.

STRATEGIC RISKS

Risks related to macro-economic factors

The TIM Group's economic and financial situation depends on the influence of numerous macroeconomic factors such as economic growth, political stability, consumer confidence, and changes in interest rates and exchange rates in the markets in which it operates. In 2018 economic growth in the euro area suffered an unexpected slowdown, suggesting that growth for the year would be lower than in 2017. The slowdown in the Italian economy was more evident than in other European countries: GDP recorded two consecutive negative quarter-on-quarter changes in the second half of the year. 2018 closed with an average growth of 0.9% in real terms, against a growth of 1.6% recorded in 2017, and growth for 2019 is expected at an even lower rate compared to 2018.
The slowdown in Italian growth reflects the deceleration in exports (in particular towards its main trading partner, Germany, which in turn recorded a sharp downturn in the third quarter), and expected normalization of monetary policies. On the domestic front, the uncertainty related to budget policy and possible repercussions on the financial markets and confidence of households and businesses had a considerable impact.
In Brazil, the expected results may be significantly affected by the macroeconomic and political situation. After two years of negative GDP growth – one of the deepest and longest recessions in its history – Brazil returned to growth in 2017 (+1%). In December the Central Bank slightly reduced its GDP growth forecasts for 2018, from 1.4 % estimated in September to 1.3%, due mainly to the performance of public accounts. The elections which ended with the new president voted in with a considerable popular majority should help to attenuate the political uncertainty and boost the confidence of households and businesses, creating a climate that is far more favorable for the economy to recover. Short and medium term growth forecasts remain tied to pension reforms and the introduction of a more efficient public spending system, which is not an easy task for the new president.

Risks related to competition

The telecommunications market is characterized by strong competition that may reduce market share in the geographical areas where the TIM Group is engaged as well as erode prices and margins. Competition is focused on innovative products and services and on the capacity to move towards higher levels of convergence in service and expand it to the content offering, but also on the price competition in both traditional and other services. The use of new technologies (IoT) and new knowledge and customer management tools (Big Data) represent enabling factors in the mitigation of competition risks, however failure to exploit these opportunities could become an additional element of risk.
In the area of infrastructure competition, the growth of alternative operators could represent a threat for TIM, also beyond the Plan period.
Iliad launched its new mobile service at the end of May with the objective of capturing 10–15% of the market, adopting the same strategies it currently employs on the French market. In addition, Open Fiber and Infratel started up plans for the development of an UBB telecommunications network as an alternative to the TIM network, respectively in major Italian cities and in areas of market failure, opening up the possibility of a new wave of competition in those areas, with impacts for both the Wholesale and Retail segments.

Competitive risks in the Brazilian market lie in the rapid transition of the business model tied to traditional services and the potential consolidation of the sector. As the consumption patterns of consumers 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 to upgrade its technologies and infrastructure rapidly and by greater competition, in the form of aggressive sales strategies and potential business combinations in the sector. At the same time, the deep economic and political crisis in the country has had a direct impact on consumption, especially in the Prepaid segment.

OPERATIONAL RISKS

Operational risks inherent in our business relate, on the one hand, to failures in systems and/or network platforms, loss of critical or commercially sensitive data, possible inadequacies in internal processes, external factors, frauds, employee errors and errors in properly documenting transactions; and on the other, to the possibility of implementing strategies for value creation through the optimization of costs and capital expenditure, which in part could depend on factors beyond the control of the Company, such as the cooperation of external counterparties (suppliers, trade unions, industry associations) and laws and regulations.

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;
- sustaining the necessary level of capital expenditure in the long term.

Risks related to business continuity

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” framework in line with international standards, to analyze and prevent these risks.

Risks related to disputes and litigation

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.

Risks of internal/external fraud

Technological progress means that increasingly sophisticated tools and techniques, which are quick acting and have a considerable economic impact are available for fraudulent activity.
“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 will gradually gain 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)

are potentially at risk of third party use for the construction of fictitious transaction schemes, tax avoidance offenses and/or international money laundering.

By way of example only, Fraud Management covers:

- traffic or marketing-related fraud;
- fraud connected with procurement processes and the supply of goods and services;
- computer fraud;
- fraud related to the use and disclosure of confidential information;
- tax and/or financial fraud;

which are:

- identified by specific controls during routine working activities, or reported from sources inside/outside the company;
- committed by entities outside the company, or by or with the assistance of employees (internal fraud).

The TIM Group has an established organizational model based on the governance of fraud and a separate operational governance system for managing and combating fraud.
The procedure to combat external fraud, drawing on company processes at risk of the offenses contemplated in Italian Legislative Decree 231/01 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.
Likewise, internal fraud is managed in compliance with constraints in trade union agreements banning the remote control of employees' work, and involves monitoring and checking access to company systems only for operational purposes, and access to registration data only in the case of identified anomalies.

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. 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.
The potential impact of Brexit will depend on the result of negotiations on the "divorce" agreement with the EU, which is even more uncertain, after the House of Commons voted against the British Prime Minister's Brexit plan in January 2019.
Brexit and possible future scenarios connected to the outcomes of negotiations could cause further instability on global financial markets in an international context that is already affected by the trade dispute between the US and China.
The potential effects of Brexit could adversely affect our financial conditions, our business and the related earnings and cash flows.

REGULATORY AND COMPLIANCE RISKS

Regulatory risks

The electronic communications industry is highly regulated. As such, new decisions by the 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 held by TIM In the fixed-line markets and the structure of the mobile markets results in high levels of scrutiny from the Italian Antitrust Authority (AGCM) 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;
- 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 decisions that can limit TIM's competitive capacity (for example, in terms of minimum retail prices to guarantee replicability);
- any inadequacy in the implementation of processes and systems for the management of regulated services, identified by AGCom or AGCM.

Compliance risks

The TIM Group may be exposed to risks of non-compliance 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-conformities are identified and is monitored by the dedicated internal control system.

Compliance with Commission Regulation (EU) 2016/679 (General Data Protection Regulation, GDPR), directly applicable as from May 25, 2018 and enacted in Italy by Legislative Decree no. 101/2018 is particularly important. This Regulation 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. Starting from the operating model already in use with pre-existing privacy regulations, the TIM Group has taken necessary action to comply with the GDPR.

INFORMATION FOR INVESTORS

TIM S.p.A. SHARE CAPITAL AT DECEMBER 31, 2018

Share capital	11,677,002,855.10 euros
Number of ordinary shares (without nominal value)	15,203,122,583
Number of savings shares (without nominal value)	6,027,791,699
Number of TIM S.p.A. ordinary treasury shares	37,672,014
Number of TIM S.p.A. ordinary shares held by Telecom Italia Finance S.A.	126,082,374
Percentage of ordinary treasury shares held by the Group to total share capital	0.77%
Market capitalization (based on December 2018 average prices)	11,153 million euros

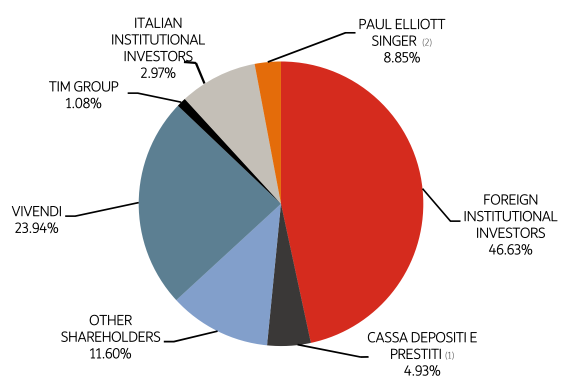
On May 25, 2016, the Shareholders' Meeting approved amendments to the company name, introducing the name "TIM S.p.A." as an alternative to "Telecom Italia S.p.A.".
TIM S.p.A. ordinary and savings shares, as well as the ordinary shares of INWIT S.p.A. are listed on the Italian stock exchange (FTSE index), whereas the ordinary shares of Tim Participações S.A. are listed in Brazil (BOVESPA index).

	TIM-Telecom Italia		INWIT	Tim Participações
code	ordinary shares	savings shares		
Stock exchange	IT0003497168	IT0003497176	IT0005090300	BRTIMPACNOR1
Bloomberg	TIT IM	TITR IM	INW IM	TIMP3 BZ
Reuters	TLIT.MI	TLITn.MI	INWT.MI	TIMP3.SA

The ordinary and savings shares of TIM S.p.A., and the ordinary shares of Tim Participações S.A. are also listed on the NYSE (New York Stock Exchange); trading occurs through ADS (American Depositary Shares) that respectively represent 10 ordinary shares and 10 savings shares of TIM S.p.A. and 5 ordinary shares of Tim Participações S.A..

SHAREHOLDERS

Shareholder composition according to the Shareholders Book at December 31, 2018, supplemented by communications received and other available sources of information (ordinary shares):



(1) Evidence of the ownership interests disclosed for the TIM shareholders' meeting on May 4, 2018.
(2) Paul E. Singer is a General Partner of Elliott Capital Advisors LP. This ownership interest is held indirectly through the subsidiaries Elliott International LP, Elliott Associates LP and The Liverpool Limited Partnership.

MAJOR HOLDINGS IN SHARE CAPITAL

Taking into account the entries in the Shareholders Book, communications sent to Consob and to the Company pursuant to Italian Legislative Decree 58 of February 24, 1998, Article 120, and other available sources of information, the relevant holdings of TIM S.p.A.'s ordinary share capital are as follows:

Outcomes of communications as per Article 120 of Legislative Decree 58 of February 24, 1998

Holder	Type of ownership	Percentage of ownership
Vivendi S.A.	Direct	23.94%
Paul E. Singer	Indirect	8.85%
Cassa Depositi e Prestiti S.p.A. (*)	Direct	4.26%

(*) Ownership interest referred to April 10, 2018.

Besides the above information, reported before December 31, 2018:

- The Canada Pension Plan Investment Board notified the direct and indirect availability, on January 21, 2019, of an amount of ordinary shares equal to 3.13% of the total ordinary shares of TIM S.p.A..
- Paul E. Singer notified the indirect availability, on January 31, 2019, through the subsidiaries Elliott International LP, Elliott Associates LP and The Liverpool Limited Partnership, of an amount of ordinary shares equal to 9.55% of the total ordinary shares of TIM S.p.A.;
- Cassa Depositi e Prestiti S.p.A. notified the direct and indirect availability, on February 18, 2019, of an amount of ordinary shares equal to 5.03% of the total ordinary shares of TIM S.p.A..

COMMON REPRESENTATIVES

- The special meeting of the savings shareholders held on June 16, 2016 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, 2018.
- By decree of June 9, 2017, the Milan Court confirmed the appointment of Enrico Cotta Ramusino (already appointed by the decrees of April 11, 2014 and March 7, 2011) as the common representative of the bondholders for the "Telecom Italia S.p.A. 2002-2022 bonds at variable rates, open special series, reserved for subscription by employees of the TIM Group, in service or retired", with a mandate for the three-year period 2017-2019.
- By decree of June 14, 2018, the Court of Milan appointed Monica Iacoviello, as common representative of the holders of the Notes for the Loan "Telecom Italia S.p.A. Euro 1,250,000,000 5.375 per cent. Notes due 2019 " issue, up until the maturity and redemption of the bonds (January 29, 2019).

RATING AT DECEMBER 31, 2018

At December 31, 2018, the three rating agencies – Standard & Poor's, Moody's and Fitch Ratings – rated TIM as follows:

	Rating	Outlook
STANDARD & POOR'S	BB+	Stable
MOODY'S	Ba1	Stable
FITCH RATINGS	BBB-	Negative

WAIVER OF THE OBLIGATION TO PUBLISH DISCLOSURE DOCUMENTS FOR EXTRAORDINARY OPERATIONS

On January 17, 2013, the Board of Directors of TIM S.p.A. resolved to exercise the option, as per article 70 paragraph 8 and article 71 paragraph 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.

RELATED PARTY TRANSACTIONS AND DIRECTION AND COORDINATION ACTIVITY

On May 16, 2018, the Board of Directors of TIM S.p.A. acknowledged that the grounds for considering Vivendi the entity exercising direction and coordination powers over TIM no longer applied. Furthermore, on June 25, 2018, the Board of Directors of TIM approved amendments to the internal procedure governing transactions with related parties, and updated the relative related-party boundary to reflect the new situation, whereby Vivendi no longer qualifies as the de facto controlling entity over TIM. The procedure was lastly updated by the Board of Directors with some improvements on July 24, 2018.

In accordance with Article 5, paragraph 8 of Consob Regulation 17221 of March 12, 2010 concerning “Related-party transactions” and the subsequent Consob Resolution 17389 of June 23, 2010, no significant transactions were conducted in 2018, as defined by Article 4, paragraph 1a of the aforementioned regulation, that had a material impact on the financial position or the performance of the TIM Group and TIM S.p.A. in 2018.

In addition, there were no changes or developments with respect to the related party transactions described in the 2017 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 2018.

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 www.telecomitalia.com, under the Group section/Governance System channel.

For information on related-party transactions, see the Financial Statements and Notes to the Consolidated Financial Statements and Separate Financial Statements "Related-party transactions and direction and coordination activity”.

ALTERNATIVE PERFORMANCE MEASURES

In this Report on Operations, in the TIM Group Consolidated Financial Statements and in the Separate Financial Statements of the Parent, TIM S.p.A., for the year ended December 31, 2018, in addition to the conventional financial performance measures established by IFRS, certain alternative performance measures are presented for a better understanding of the performance of operations and financial position. Such measures, which are also presented in other periodical financial reports (annual and interim) should, however, not be construed as a substitute for those required by IFRS.

The alternative performance measures used are described below:

- **EBITDA:** this financial measure 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 assessing the operating performance of the Group (as a whole and at Business Unit level) and of the Parent, TIM S.p.A., in addition to **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 profits (losses) 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) "Expenses (income) from investments" for TIM S.p.A..
(2) Line item in Group consolidated financial statements only.

- **Organic change in 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 and exchange differences.
  TIM believes that the presentation of the organic change in revenues, EBITDA and EBIT allows for a more complete and effective understanding of the operating performance of the Group (as a whole and at Business Unit level) and of the Parent. This method of presenting information is also used in presentations to analysts and investors. This Report on Operations provides a reconciliation between the "reported figure" and the "organic" figure.

- **EBITDA margin and EBIT margin:** TIM believes that these margins represent useful indicators of the ability of the Group, as a whole and at Business Unit level, and of the Parent 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. Such indicators are used by TIM in internal presentations (business plans) and in external presentations (to analysts and investors) in order to illustrate the results from operations also through the comparison of the operating results of the financial year being reported with those of the previous years.

- **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 Report on Operations includes two tables showing the amounts taken from the statements of financial position and used to calculate the Net Financial Debt of the Group and Parent respectively.
  In order to better represent the actual change in Net Financial Debt, in addition to the usual measure (named "Net financial debt carrying amount"), the "Adjusted net financial debt" is also shown, which excludes effects that are purely accounting in nature resulting from the fair value measurement of derivatives and related financial liabilities/assets.

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 + D)	**Adjusted net financial debt**