



# 2019

## Sustainability Report

2019 Consolidated Non-Financial Statement





[GRI 102-53]

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Cover print  
Frame spot TIM 2019 “A new world”

# Letter from the Chief Executive Officer to the stakeholders

Telecommunications networks can be considered the nervous system of modern societies: a complex and widespread system, sensitive to the digital progress of an entire economy.

Thanks to this, telecommunications operators play an essential role in the economic and social growth of countries. A sustainable economic and social system is built on sustainable, inclusive and environmentally friendly digital networks and services.

As a leading company in Italy, we can make the difference by taking action on the environment, social issues and governance to reinforce society, families and businesses.

Acknowledging this, the following responsibility brought us to develop our 2020-2022 Strategic Plan focused on sustainable themes. The key elements, identified in line with the UN's Sustainable Development Goals, on which our three-year strategic plan is based on, are three: the development of sustainable networks, services that improve the sustainability of businesses and help citizens' lives, enhancement and development of our human resources.

We will work to update our networks and provide more efficient data centers, leading not only to significant energy savings for the Group but also for customers who use our platforms and services. We will increase the use of cleaner energy sources, which will eventually result in more stable underlying costs. In brief, less and cleaner energy – for TIM and our customers. Our goal is ambitious: achieve carbon neutrality in 2030.

Innovation and sustainability will be our twin guides as we select and develop new services. The Internet of Things will increasingly change the way companies operate by enabling greater automation of risky processes and achieve more efficient use of natural resources such as water, gas and energy. We will continue to develop transport-related services, to give authorities and citizens the information they need to improve mobility. 5G networks will make another major contribution to connectivity and value-added services, even thanks to robotics and Big Data. Security and customer data protection services, together with "cloud" services will reinforce Italian companies.

To develop our human capital, we will focus even more on training through initiatives for young people and talented staff, with job rotation, professional growth pathways, learning new skills and harnessing the benefits of diversity. Our efforts will not be just for our people but for the whole society: citizens, businesses and Institutions. This is the idea behind Operazione Risorgimento Digitale – a huge training program open to all Italians. Initially set up as a travelling digital school that would visit all 107 Italian provinces; after the Coronavirus emergency, it has been rethought and enriched with a series of initiatives that allow everyone to exploit the potential of the digital world in response to the crisis.

As much as our Group will influence positively on citizens' lives, in the organization of our cities and in the relationship between Institutions and citizens, TIM's value will grow.

Our commitment to corporate responsibility as an integral part of our strategies has been confirmed for the sixteenth year in a row by our inclusion in the Dow Jones Sustainability Index Europe, along with other big global indexes such as

FTSE4Good and Euronext Vigeo Eiris. As further proof of TIM Group's good work, for the second year in a row it was on the Refinitiv index, a recognition that shows our commitment on inclusion.

Almost twenty years after signing the UN Global Compact, we still believe that to grow responsibly it is essential to align our strategies with universal principles such as protecting Human Rights, work enhancement, protecting the environment and fighting corruption.

The role that we have always played in economic and social development – and want to continue to play – cannot ignore the difficulties that Italy is facing at the moment. This health crisis involves us all and affects us personally. The current state of emergency imposes significant changes and radically modifies our normal life style.

It is still too early to accurately assess the economic and social impact of what is happening, but there is no doubt that there will be consequences. The only thing we can assure is that we will always be there. We will continue to act rapidly and proactively, through our infrastructure, our engineers and our services, to stand beside citizens and the entire Country against the Coronavirus.

*Luigi Gubitosi*  
Chief Executive Officer



[GRI 102-14]

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# Executive Summary

Due to its size, its extensive and widespread presence and its infrastructural and technological assets, TIM is a "system company"; it is fully integrated with the regions and with the social, economic and productive fabric of the countries in which it operates. The TIM Group's work has therefore changed over time, to meet the needs of the communities it operates in. The current challenge is to use the Group's infrastructure and skills to contribute to a new phase of evolution in our society, one that requires us to use technology and work with all the players in the public and private sectors to tackle the great environmental and social challenges of the day, speed up reaching the Sustainable Development Goals in the UN's 2030 Agenda, and at the same time, prepare for and respond to the risks that spreading technology brings.

TIM's contribution to sustainability might therefore be better termed a contribution to digital sustainability, which means aligning the ICT sector with the UN's global challenges to see how best to seize the opportunities and respond quickly to new threats.

The Sustainability Report explains in depth the Group's work on environmental, social and governance topics, demonstrating its contribution to reaching the Sustainable Development Goals and the targets it identifies itself as priorities.



## FIGHTING CLIMATE CHANGE

The Group is one of the main players in the digital transformation, the profound change in our society made possible by ultrabroadband (UBB) networks (FTTx and 5G), resulting from the development of technological enablers like artificial intelligence, the Internet of Things (IoT) and advanced analytics. These technologies are driving a radical transformation of our society, making it move on from data services to digital solutions, in the most varied fields (for example security, entertainment, on the move: electric cars, at work: Industry 4.0, smart city: public services, environmental sustainability, health: predictive and personalized medicine).

TIM has always considered innovation to be a strategic asset and takes great care in governing its individual aspects, from its strategic role to responsibility, objectives and policy. With regards to the role itself, in 2019, both technological and business-related innovation once again played a key role in responding to the changing technological, market and competitive environment. Besides continuing with its existing research and development projects, TIM has launched new initiatives, for example for growing co-creation ecosystems such as the IoT Open Lab, a laboratory dedicated to the development of IoT solutions, based on technologies that are of key importance from an open innovation perspective.

In accordance with the Italian Digital Agenda and the relevant EU directives, in 2019, TIM consolidated and rationalized its Smart Services offering (with regard to safety, energy efficiency, the environment and digital services within cities) with a view to promoting the "smart city" model. This model translates into improved quality of life, delivered by means of innovative digital services that can facilitate new forms of collaboration between citizens, businesses and public administration bodies, whilst contributing to energy savings. TIM has, for example, formed collaborations with some municipal governments to run environmental sustainability projects over several years: REPLICATE (Firenze Smart City), MONICA and SMILE (Torino Smart City).

Besides providing smart services, TIM offers people and businesses eco-friendly products for reducing their environmental impact and optimizing the consumption needed to their provide services. It applies design rules that reduce environmental impact ("design for environment"), in particular at the production stage and managing the end-of-life of the equipment to reduce electronic or e-waste.

Even internally, the Group is committed to doing its part. In 2019 alone, its renewable energy use went up by 244%, and it worked to get better energy efficiency, reducing CO<sub>2</sub> emissions by 123 GWh over three years. All suppliers are analysed to assess their social and environmental risks.

TIM's contribution is focused on the targets in Goal 7: Affordable and clean energy (targets 7.2, 7.3 and 7.b), Goal 9: Industry, innovation and infrastructure (target 9.4), Goal 11: Sustainable cities and communities (targets 11.5 and 11.6), Goal 12: Responsible consumption and production (target 12.2: use of natural resources, target 12.5: waste reduction and targets 12.6, 12.8 and 12.a: strengthen capacity) and Goal 13: Climate action (targets 13.1, 13.3 and 13.b).



## CONTRIBUTION TO THE COMMUNITY

The TIM Group's strategy concentrates on spreading an inclusive digital culture that enables innovation and economic development in communities. In particular, it allows Italy to get over the geographical digital divide, thanks to the broadband coverage it gives to 80% of homes on fixed networks and more than 99% of homes with 4G mobile networks, even in rural areas. In Brazil, the development of fixed and mobile networks on the one hand and 5G on the other have led to an unprecedented acceleration in the telecommunications sector. This is a phenomenon that is opening up new possibilities and profoundly changing people's habits, as they become increasingly accustomed to living in a connected world.

But besides the geographical digital divide, there is also a social one. The TIM Group helps spread knowledge of the internet and digital technologies to people in society who they tend to be off limits to, thereby helping reduce inequality. It does so through joint initiatives with public administration, universities and other players in the public and private sectors. In 2019, the Operation Risorgimento Digitale was launched to carry training courses to all 107 provinces in Italy (for a total of 20,000 hours of training). Fondazione TIM in Italy and Istituto TIM in Brazil have carried out many cultural projects and initiatives, which help spread a culture of innovation among more vulnerable people and update them on technology.

Besides providing enormous opportunities, the digital transformation is also posing risks to human rights. The TIM Group is on the front line of containing these risks. Among the main contributions are the initiatives to protect the health, privacy and safety of personal data, and on the key topics of cyber security and protecting the most vulnerable categories of data (safe use of the internet and fighting cyber bullying and child pornography).

The main focus of the Group, therefore, is helping reaching the targets in Goal 8: Decent work and economic growth (targets 8.2, 8.3 and 8.4: sustainable growth and targets 8.1 and 8.10: inclusion), Goal 9: Industry, innovation and infrastructure (targets 9.1, 9.a and 9.c: infrastructure and targets 9.2 and 9.3: sustainable and inclusive industrialization), Goal 10: Reduced inequalities (targets 10.1 and 10.2) and Goal 16: Peace, justice and strong institutions (targets 16.9 and 16.10: protecting human rights), conserving TIM's strong historic link with formal and non-formal training for all generations, helping reach Goal 4: Quality education (targets 4.1 and 4.3: formal education, targets 4.4, 4.6 and 4.7: developing skills and 4.b: adequate funding).



## CLOSENESS TO OUR PEOPLE AND CORPORATE GOVERNANCE

TIM shows the care it has for the people who work for it by listening to their needs (e.g. the BU Domestic engagement survey) and coming up with a plan based on everyone's expectations, as long as they are concrete and measurable. There are many initiatives providing continuous training for people, the only way for TIM to support itself in the digital economy. In 2020, the TIM Academy platform will be enriched with a training plan on sustainability topics. This aims to guarantee ever greater involvement of people in the Group's social and environmental goals.

TIM supports employee participation in volunteer initiatives, and is particularly attentive to the issue of diversity within the company. In 2019, TIM was once again in the Top 100 of the Refinitiv Diversity and Inclusion Index, the most respected world ranking for the criterion, at 6th, making it the highest Italian company and highest telecoms company in the world. TIM's place in the Refinitiv Diversity and Inclusion Index confirms the Group's commitment to equal opportunities, non-discrimination and inclusion as the basis of its company strategy to improve internal expertise, organizational well-being and therefore company performance. Mel 2019 TIM was also in the Top 20 of the Diversity Brand Index which lists the brands seen as the most inclusive.



Targeted initiatives are in place for the attraction and retention of talent; these include direct links with universities and the world of higher education. In addition, as part of the application of the Group's expansion contract (in force from August 2019 until December 2020), TIM is focusing on reconciling its organizational efficiency requirements with those related to development. The expansive nature of this measure combines increased employment (600 new hires) with internal training: a modern, innovative tool that can support TIM on the journey towards a digital economy.

Within the realm of Corporate Governance, taking into account the recent Law no. 160 of December 27, 2019, which changed the rules on the "pink quota", increasing the required share of women in administration and auditing bodies of listed companies from at least a third to at least two fifths of the total and applying this requirement for six consecutive terms, TIM will change its Articles of Association. The new division requirement will not make it necessary to change the current composition of the corporate bodies, as they already reflect the new shareholding (6/15 on the Board of Directors and 2/5 on the Board of Statutory Auditors, respectively). The change to the Articles of Association also involves applying the criteria continuously, not just for the six terms set out in the new legislation.

Confirming the ongoing Group commitment to fight any form of corruption, in 2019 the Parent, TIM S.p.A. adopted the Anti-bribery Management System (also 'SGA') for which it attained UNI ISO 37001 "Anti-bribery Management Systems" certification.

TIM has therefore also identified among its priority goals the targets in Goal 5: Gender equality (targets 5.4, 5.5, 5.6 and 5.b) and Goal 16: Peace, justice and strong institutions in relation to corporate governance and management of human resources (targets 16.1, 16.3, 16.5 and 16.a).

## Main results from 2019



# NOTE ON METHODOLOGY

## Scope and criteria

[GRI 102-45] The Consolidated Disclosure of Non-Financial Statement (hereinafter “Statement” or “Sustainability Report”) complies with the obligations laid down in Italian Legislative Decree 254/2016 on the disclosure of non-financial information. This Statement – which is its Sustainability Report and is distinct from the Group Report on Operations – is the result of the commitment to inform its stakeholders of its performance and results in the field of sustainability, as in previous years. Pursuant to Legislative Decree 254/2016, the Statement describes the management approach, policies and risks generated and/or run in relation to the five areas set out in that decree (environmental, social, staff, human rights and fighting active and passive corruption).

[GRI 102-46] The Statement contains data and information referring to the Company TIM S.p.A. and its fully consolidated subsidiaries as of December 31, 2019 (hereinafter “the TIM Group” or “the Group”), as presented in the Annual Financial Report. The environmental performance data are presented with some limitations – consisting of European and American entities subsidiaries of Telecom Italia Sparkle S.p.A – with respect to the Group's perimeter and the entities with fewer than 30 employees. These limitations are not important to understand the Company's activities, performance, results or the impact produced by the Group.

[GRI 102-47] The Report is based on a multi-stakeholder approach involving the joint analysis of actions taken in respect of the main stakeholders with whom the Company interacts. For details of the material topics see the relevant paragraph.

[GRI 102-50] [GRI 102-51] [GRI 102-52] The 2019 Sustainability Report, prepared annually over the calendar year, respects the same deadlines as the Group Annual Financial Report.

[GRI 102-10] [GRI 102-48] During 2019 no significant changes in the scope of consolidation were recorded (it should be noted that in December 2019 the sale of the holding in Persidera S.p.A. was finalized, while in October 2019 the merger by incorporation of Noverca s.r.l. with TIM S.p.A. took place). Data relating to previous years is provided for comparative purposes only, in order to allow an assessment of the dynamic trend of the Group's activities over the medium term. Note that information relating to “Fondazione TIM” and “Istituto TIM”, entities not included within the Group's consolidation scope, represents a qualitative element which is useful in order to understand the attention paid to the social context.

[GRI 102-54] The Sustainability Report has been prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) (In accordance-comprehensive option). In addition, the document takes into consideration the process recommended by the AA1000APS principles (inclusivity, materiality and correspondence). Reference to the GRI disclosures are reported in the text highlighted with the symbol [GRI N.].

The Sustainability Report is drawn up according to a system of indicators (KPI - Key Performance Indicators) which measure the company's performance and the degree of achievement of objectives previously established for areas in which the Company has major impact.

The KPIs are defined on the basis of:

- the analysis of the GRI, an international organization which develops universally applicable guidelines for the drafting of sustainability reports;
- the demands received from stakeholders;
- the questionnaires sent out by the leading rating agencies for the purpose of admission to the stock market sustainability indexes;
- the experience the Company has gained in the sustainability field over more than 20 years.

The KPIs - mainly those relating to environmental data - are managed on a dedicated application system (BPC) that uses the same platform used for financial reporting and control.

In terms of internal auditing of the contents presented, the Company has set up a system with:

→ dedicated Operating Rules, which define the roles, responsibilities and procedures to be followed by Group companies in order to ensure adequate management and reporting of non-financial information;

→ an internal control system, active on some of the data categories such as the environmental one, to ensure the correct tracking and reporting of non-financial information;

→ the signing of a letter of attestation by senior management concerning the data constituting the paragraphs of the Financial Statements for which they are responsible.

[\[GRI 102-56\]](#) In terms of external control, the Non-Financial Statement and related data are subject to limited assurance engagement by EY S.p.A., the Group's independent auditors, whose Report is available at the end of this Report.

The present document was approved by the Board of Directors of TIM S.p.A. on March 10, 2020.

**The TIM Group**



## Organizational model

[GRI 102-1] [GRI 102-2] The TIM Group offers fixed and mobile communication services and ICT solutions, as well as digital content. In Italy, the Group operates the biggest fixed voice and data infrastructure, covering the whole country, and provides one of the country's most extensive and advanced mobile network platforms.

[GRI 102-5] The Parent Company is TIM, joint-stock company organized under the laws of the Republic of Italy<sup>1</sup> [GRI 102-3] where the parent company has its registered office.

[GRI 102-10] [GRI 102-48] No significant changes were recorded in the consolidation area in the financial year 2019. The sale of the investment in Persidera S.p.A. was completed in December 2019, while Noverca s.r.l. was merged into TIM S.p.A. in October 2019.

[GRI 102-4] [GRI 102-6] [GRI 102-7] The Group's activities are encompassed in the following Business Units (or operating segments)<sup>2</sup>:

- the "Domestic" Business Unit operates primarily in the field of domestic fixed and mobile voice and data services for end customers (retail) and other operators (wholesale), as well as in the information technology products and services sector through Olivetti. The Business Unit also includes the activities of INWIT S.p.A. and on an international scale, the activities related to the development of fiber optic networks (Sparkle) across Europe, Africa, the Americas and Asia;
- the "Brazil" Business Unit (TIM Brasil Group) provides mobile and fixed telecommunications and transmission services in Brazil;
- "Other activities" include financial companies (Telecom Italia Capital S.A., Telecom Italia Finance S.A.), not strictly related to the Group's core business.

[GRI 102-2] The Group's main brands are:

- **TIM** is the brand which operates in the domestic market offering fixed and mobile telephony, internet, digital content and cloud services. The TIM brand is also present in Brazil, where it markets mobile phone, mobile Internet and fixed line services.
- **Kean Mobile** is the second brand for the domestic retail segment. Established in 2017, it is intended for private customers only, and offers no frills mobile services<sup>3</sup>.
- **Sparkle** offers international voice, data and Internet solutions to fixed and mobile telecommunications operators, Sips/Asps, content and media players and multinational companies.
- **INWIT** is the Group's tower company operating in Italy in the electronic communications infrastructure sector, specifically that dedicated to the housing of radio transmission equipment, telecommunications and broadcasting of television and radio signals.
- **Olivetti** markets information technology products and services for residential and business customers.

The Group is particularly attentive to the needs of the communities in which it operates and implements wide-ranging initiatives and projects aimed at the social and economic development of the areas in which it has a presence. This was the intention behind the establishment of Fondazione TIM in 2008, which was followed by Instituto TIM in Brazil in 2013.

The telecommunications industry is undergoing a profound transformation due to the evolution of UBB networks (FTTx, 5G), associated with the development of other technological enablers such as Artificial Intelligence, Cyber Security and Advanced Analytics, which sets the scene for a new paradigm shift, or the transition from data services to digital solutions, in the widest range of areas:

- in the home: security and entertainment
- on the move: the connected car
- at work: Industry 4.0
- smart city: citizens services and sustainability

<sup>1</sup> [GRI 102-5] Also see the TIM Group Consolidated Financial Statements.

<sup>2</sup> [GRI 102-45] For more information on the structure of the Group and details of the countries where TIM operates, see the "The companies of the TIM Group" note in the Group's Consolidated Financial Statements, which also lists the Group companies and subdivides them by consolidation method.

<sup>3</sup> Offers only basic services.

- health: predictive and personalized medicine

TIM is operating in a “gigabit society”, characterized by increasingly numerous and complex services that represent an opportunity for growth for the TLC industry, which already contributes over 90 billion euros (or 5%) to Italy's GDP,<sup>1</sup> including through direct and indirect effects and productivity.

The GSMA 2019 report "The Mobile Economy" confirms that the expected contribution to European GDP from the use of 5G technologies in the economy is estimated at 4.6%, rising over the next five years to 4.8%.

The Company will continue to focus on digital innovation as a key way to promote a greater diffusion of demand for innovative services and for the continuous improvement of its network, which with over 17 million km of fiber laid is the most advanced and dynamic telecommunications infrastructure in the country. It provides ultrabroadband coverage to 80% of homes on fixed networks and over 99% of the population on 4G mobile networks.

In addition, TIM is leading the 5G technological innovation and, in this role, the Company was awarded the best frequencies put out to tender by Ministry for Economic Development (MiSE).

By 2021, 120 cities, 200 tourist destinations, 245 industrial districts and 200 specific projects for large enterprises will be covered. Many municipalities will be able to make use of 5G, including superfast connections through FWA (fixed wireless access<sup>2</sup>).

At the same time, the Group is committed to promoting the widest possible distribution of digital technologies and skills with full integration across the country and in its social and economic-productive fabric. Digital solutions for public administration services, cloud services for business, digital platforms for schools and hospitals, applications for people with disabilities are just a few examples.

In this context, TIM's “Operation Digital Risorgimento”, a large digital education project for Italy, was launched. The Project involves more than 400 trainers who will develop a program lasting 20,000 hours in all 107 Italian provinces. It will be aimed at a wide audience of people<sup>3</sup> with the aim of boosting the process of digitizing the country, encouraging the adoption of new technologies by an increasingly large pool of citizens. The initiative has obtained the support of the European Commission Representation in Italy and adheres to the Digital Republic Manifesto promoted by the Special Government Commissioner for the implementation of the Digital Agenda. More details are available in the Chapter "The Value Chain -Digital Inclusion".

Although the primary purpose of TIM's business model is to create long-term value, for the Company and its stakeholders, the Group has for some time set itself the essential objective of pursuing this aim while ensuring a balance between economic, social and environmental sustainability.

## Main Shareholders of TELECOM ITALIA S.P.A.

[GRI 102-5] As at December 31, 2019, the reference shareholder is the French Vivendi S.A., with 23.9% of the ordinary share capital. [GRI 102-10] In 2018, Paul Elliott Singer (General Partner of Elliott Capital Advisors LP) acquired an indirect stake in TIM, held through the subsidiary companies Elliott International LP, Elliott Associates LP and The Liverpool Limited Partnership, equal to 9.6% of ordinary share capital as of December 31, 2019.

In April 2018 Cassa Depositi e Prestiti entered the shareholding structure of TIM and, at the shareholders' meeting of March 29, 2019, it participated with shares equal to 9.9% of the ordinary share capital.

The structure of the Net Equity and the number of shares in circulation are shown in the Group's Consolidated Financial Statements. For further information relating to reports made to Consob regarding significant shareholdings, see the Report on Operations of the TIM Group.

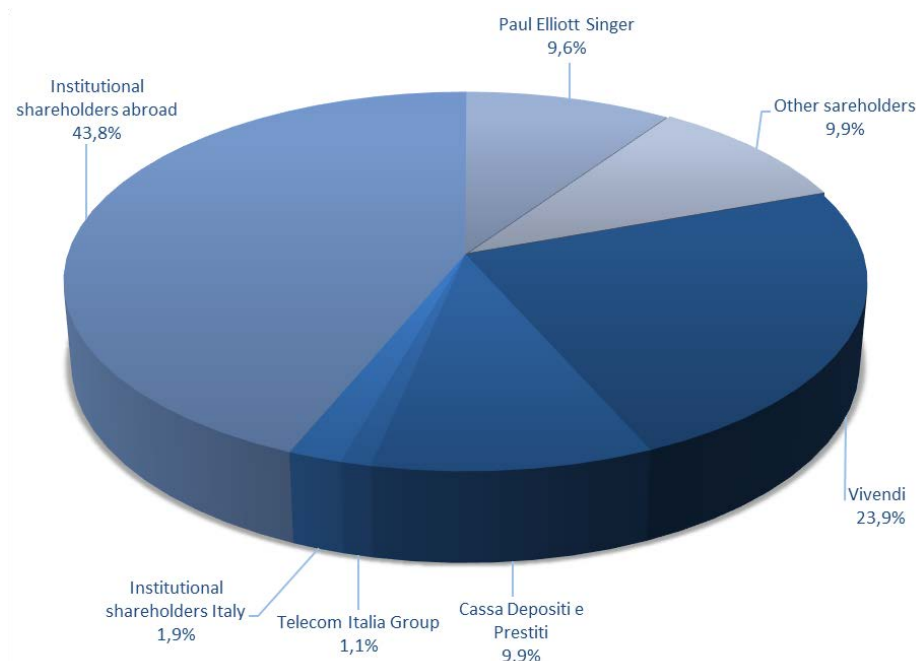
During the three-year period 2017-2019, "The share of participation in TIM ordinary capital by Vivendi S.A. is unchanged foreign institutional shareholders, including the amounts referable to Paul Elliott Singer, decreased (-3.51 pp), as well as Italian institutional shareholders (-2.2 pp) and other shareholders (-4.3 pp). The shares held by the Group remained unchanged.

<sup>1</sup> ASSTEL memorandum (Hearing at the IX Commission for Transport, Posts and Telecommunications of the CHAMBER OF DEPUTIES - April 2019)

<sup>2</sup> Technology that uses a hybrid system of cable and wireless connections to offer broadband and ultrabroadband connectivity services.

<sup>3</sup> About 1 million people.

## Composition, as a percentage, of the share ownership as at December 31, 2019



## Economic value produced and distributed

The Group aims to achieve a balance between the three dimensions:

- environmental sustainability: maintaining the function of ecological systems, ensuring a balance between the use of natural resources and the company's activities;
- social sustainability: promoting the principle of fairness between generations and within the same generation;
- economic sustainability: maintaining and increasing capital.

[GRI 102-7] TIM reports on what it does to achieve this objective in the Sustainability Report, which focuses primarily on environmental and social sustainability, as well as aspects that are both of a social and economic nature (e.g. customer care and innovation management) and the Annual Financial Report, which discusses the Group's economic performance in detail. In order to give a comprehensive view of the Group's sustainability, we have provided some summary data of economic performance in the Appendixes, which are drawn from the Annual Report. The distribution of revenue by product and service and the trend in the Group's capitalization and debt is shown in the "Revenues" note of the TIM Group's consolidated financial statements and the Report on Operations of the TIM Group.

[GRI 201-1] The economic value produced and distributed to the stakeholders is shown below. Since 2008, the presentation method recommended by the Global Reporting Initiative has been adopted, with appropriate adaptations.

[GRI 201-1] TIM Group - Economic value produced and distributed (millions of euros).



[GRI 102-7] The following table shows one of the main classes of management data of the Group, the trend of access lines to fixed and mobile telephony services.

#### TIM Group – Number of lines at year end

(thousands)	12/31/2019	12/31/2018	12/31/2017
<b>DOMESTIC FIXED</b>			
Physical connections	17,136	18,212	18,995
BroadBand connections *	7,592	7,483	7,510
<b>DOMESTIC MOBILE</b>			
Number of lines	30,895	31,818	30,755
<b>BRAZIL</b>			
Number of lines	54,447	55,923	58,634

\*From 2019 the total figure for BroadBand connections at period end is no longer available, only the figure for active BroadBand TIM Retail. The table shows the outstanding amounts for the previous years, coherently with the new criterion.



## The Community

With its networks, products and technological solutions, TIM is one of the main protagonists of the evolution towards a digital economy and, given its size, reach, infrastructure and technological assets, is fully integrated with the area of operation and the social, economic and production context.

TIM is aware of this strategic role and therefore works constantly to manage and innovate its infrastructure and technologies, which it places at the service of the country and to which end it makes significant investments.

The Group companies intend to contribute to the economic well-being and growth of communities in which they operate by delivering increasingly digitalized services. Consistently with this objective and with its responsibilities towards the various stakeholders, including the competitors listed in the sustainability section of [www.telecomitalia.com](http://www.telecomitalia.com), the Group considers research and innovation to be essential conditions for growth and success.

As private entities requiring cost-effective management, Group companies take the social impact of telecommunications services into account in their decision-making activities, responding to the needs of society, including its weakest members.

### Security and management of emergencies

With the aim of ensuring maximum cooperation, in terms of security and management of emergencies and crises, national and local institutions and affected communities, TIM has signed and implemented the following conventions:

- A “memorandum of understanding between the Department of Civil Protection of the Presidency of the Council of Ministers and the providers of electronic communication services to allow emergency information to be sent across national geographical areas.”
- An “agreement between the Crisis Unit at the Ministry of Foreign Affairs and International Cooperation and providers of electronic communication services for the supply of messaging services for Italian citizens abroad in emergencies.”
- The “Convention for implementing a device to generate Missing Child Alert” launched with the Italian Ministry of the Interior, Department of Public Security;
- A “contract for the supply of information on the location of SIM cards used in TIM phones” with the national mountain and cave rescue corps to locate people lost in the mountains.

In 2019, TIM was called by the Civil Protection Department and MiSE to collaborate in the design, testing and implementation of the IT-Alert system, a new technological platform at the service of alerting, with a cell broadcast message, all people living in an area affected by a specific natural risk.

Furthermore, as required by the relevant laws on training, we:

- test the soundness of the emergency planning and the ability of the company’s operational Crisis Management Systems to respond;
- maintain staff, structures and tools of the emergency management system in a state of readiness;
- Identify, where necessary, actions to improve internal company processes and the processes used to interface with the relevant stakeholders (institutions, communities and customers).

TIM participated in the following exercises in 2019:

- "Ankon 2019", on NBCR risks, organized by the Ministry of the Interior together with the Prefecture of Ancona;
- "Exe Flegrei 2019", organized by the Civil Protection Department, to update planning for volcanic risks in the Phlegraean Fields.

TIM's involvement in these drills is necessary as the company delivers essential services and is part of the National Civil Protection System (Law 225/1992), together with other public and private organizations and the Ministry of the Interior's Interministerial Technical Commission for Civil Defence.

In addition, in relation to training, TIM has circulated, inside and outside the Group, the contents of the "Io Non Rischio" ("I don't take risks") campaign, organized annually by the Civil Protection Department to strengthen the culture of risk prevention and raise awareness about safe behavior throughout Italy. This year the campaign came under the banner of the "Settimana Nazionale della Protezione Civile" ("National Civil Protection Week"). The TIM Academy has also designed and delivered an online course on crisis management, for all heads of the relevant functions, the 20 operational crisis teams for defence and civil protection, and all contacts at local institutions.

Finally, TIM has made sure it is represented in national and local institutional crisis units – in times of both crisis and calm – and that service requests are satisfied and dealt with within 12 hours and 24 hours as set out in Prime Ministerial Directive 3.12.2008 on "operating directions for managing emergencies".

## Relations with local communities

In addition to the usual relations with national institutions, as described in the sustainability section of the [www.telecomitalia.com](http://www.telecomitalia.com) website, TIM works every day to ensure that relations with regional and local bodies are lasting and satisfactory, in the belief that this is the only way to create the conditions for developing its area of operation and improve people's quality of life, while allowing the institutions and TIM to achieve their respective objectives.

TIM has a central function entirely dedicated to the management of relations with local authorities, which has also set up permanently in the area for ease of communication and to build relationships with government bodies. The function also relies on local authority accounts in the region, specialists in managing relations with governmental institutions on technical matters concerning the development of fixed and mobile networks.

The Relations with Local Authorities department, as part of its duties:

- carries out all possible actions of an institutional nature aimed at facilitating the development of the fixed and mobile telecommunications network;
- identifies the intervention priorities of the other company departments through the Field Integration Committee<sup>1</sup>;
- establishes the priorities and determines how to interact with public bodies in light of the requirements identified;
- constantly monitors existing institutional relations and systematically develops the network of relationships;
- contributes to drawing up agreements with regions and municipalities;
- listens systematically to all requests and reports from local institutions and directs them correctly to the relevant departments within TIM;
- supports other departments of TIM in the implementation of territorial projects;
- prevents disputes arising, above all in reference to network development issues
- actively participates in the intra-operative working tables within the trade associations within Confindustria.

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<sup>1</sup> Internal local committees involving the managers of departments with local branches.

Particular attention is paid to organizations that deal with issues relating to:

- the development of fixed and mobile ultrabroadband networks;
- digitalization of public utility services;
- use of public funds;
- the spread of digital culture.

With full respect for the principles of transparency and accountability, TIM responds flexibly to requests, regardless of how they are received from local institutions.

Joint projects between TIM and local authorities are managed in a way that defines the roles and duties of each party, formal control mechanisms and measurement tools. TIM promotes the formation of joint control committees, i.e. committees formed of representatives of all the parties involved.

The composition and objectives of the committees are determined according to the specific requirements of the project and provide for the presence of stakeholders without any kind of discrimination, including gender discrimination. Monitoring and constant interaction with the decision-making centers of local institutions take place by means of meetings, hearings, the presentation of position documents and involvement in workshops as well as in the work of regional commissions and specialist working groups. TIM frequently organizes communication initiatives on specific issues of local interest.

[GRI 413-1] Among the main subjects of dialog with local authorities during 2019 we would highlight the following:

- development of the new ultrabroadband networks (NGAN1), implementation of the LTE standard and launch of the new 5G technology;
- actions of an institutional nature involving local administrations aimed at encouraging development of the fixed and mobile telecommunications network;
- drawing up protocols with local authorities in order to develop new fixed and mobile generation access networks;
- draft regional laws and municipal regulations regarding the installation of mobile telephony systems and electromagnetic fields, in order to represent the company's requirements (also with the presentation of observations, amendments and participation in hearings) with a view to the simplification and standardizing of the relevant national provisions;
- proposed excavation rules, in order to ensure the consistency of the authorization process and the respective regulations with national regulations, particularly in order to ensure simplification at local level
- removing public telephone installations (telephone booths), for which provisions have also been made for a public hearing as part of the procedure agreed with AGCOM;
- promotion of digital transformation initiatives to spread knowledge and new technologies, including through partnerships with municipal government;
- promotion of a digital culture, including through agreements, protocols and partnerships with local authorities; significant participation in the launch of the TIM "Risorgimento Digitale" project, started to support the country's digitization process and accelerate the spread of digital skills among Italian citizens;
- promotion of innovation, including through agreements, protocols, partnerships with local authorities to promote the creation of smart cities and experimenting and launching the 5G service offer;
- drawing up 20 regional policy reports to take stock of the development of regional policies regarding digital services and network infrastructure in light of the new EU funds programming policy for 2014-2020
- the central and local management, coordination and monitoring of complaints received by local authorities.

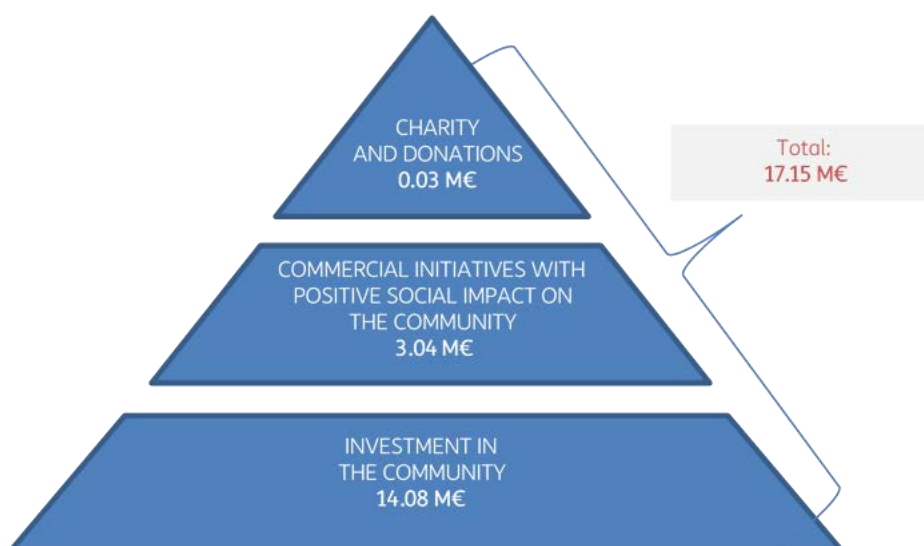
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<sup>1</sup> Next-Generation Access Network

[GRI 413-2] The potential negative impacts arising exclusively from excavations for installing cable ducts or positioning radio base stations are mitigated through the use of low environmental impact technologies, such as mini trenches, and thanks to prior agreements with local communities, e.g. regarding aerial installation sites.

## How the contribution to society is measured

The contribution made to the community by the Group, calculated according to the London Benchmarking Group (LBG)<sup>1</sup> guidelines, amounted to 17.15 million euros in 2019. 2018 and 2017 data is available on the Group website, sustainability channel.



## Fundraising

In a national and international context in which crisis and conflict scenarios are multiplying, against an ever-increasing number of people in need and emergency situations, private fundraising is a key factor in “person-to-person” cohesion and support.

For over 16 years, TIM has been a key player in the solidarity chain, supporting humanitarian, scientific and environmental projects by allowing people to make a donation of one or two euros with a text message, or two and a half or ten euros with a call to a dedicated free number from a landline. Alongside these traditional donation methods, in 2019 we launched, before anyone else in Europe, the integrated “DonaconTIM” system<sup>2</sup>, which lets us receive donations through an app and web platform.

The new Self-Regulatory Code issued by AGCOM establishes 60 numbers, divided into 30 permanent numbers (lasting one year) and 30 temporary numbers (lasting 20 days), with a special price list. The two emergency numbers continue to be free. The amounts collected are returned in full, with no withholdings applied by either the tax authority or TIM for the costs incurred.

In 2019 there were 139 charity campaigns and one emergency one, for the disastrous flooding in Venice in November, which received more than 11 million euros. The largest amounts of money are raised for medical and scientific initiatives, with social welfare initiatives at national level, such as violence against women, close behind.

<sup>1</sup> More than 150 major international companies subscribe to the LBG, which was founded in 1994 and is the global gold standard for the classification of voluntary contributions made by companies in favor of the community. In accordance with the LBG model, in order to measure and represent the Group’s commitment to the community, the contributions disbursed have been subdivided into three categories (charity, investments in the community, initiatives in the community), adopting the customary pyramid-shaped representation. For further information, see the sustainability section of the [telecomitalia.com](http://telecomitalia.com) website, which contains further details about data for the last three years. The LBG guidelines are considered a reference for the preparation of the statement for determining economic value generated and distributed. The graphic provides more information than required by Legislative Decree 254/2016.

<sup>2</sup> Further information on DonaconTIM is available in the next section of this chapter, “Digital culture projects”.



## Digital Culture Projects

In a coordinated and complementary manner with respect to the Country's technological infrastructure path, the TIM Group aims to improve the digital literacy of the population and enhance excellence in the country using the potential of the internet.

**Digital skills** have been one of the key factors in economies achieving a competitive advantage over the past 20 years, as shown by much of the work carried out by the OECD and the European Commission. On this front, the Digital Agenda asks EU countries to take action to broaden knowledge of digital tools and increase the number of people with evolved digital skills, particularly by teaching ICT in schools. With this in mind, schools must make a radical change in the way they plan and provide education, and in the way pupils, teachers and parents interact. Because of the importance of this subject, the European Commission constantly monitors the speed with which digital technologies are being introduced in schools and in teaching.

Since 2016, TIM has promoted the **TIM ScuolaDigitale**. During the 2016–2017 and 2017–2018 school years, the project aimed to bring school teachers of all levels and qualifications more into contact with digital tools, to give them an overview of technologies that add value and provide new opportunities for teaching. Over two years, more than 200 meetings were held throughout Italy, involving over 4,500 teachers. For the 2018–2019 school year, the project aims to make children in their first year of high school more familiar with the key concepts of new technologies, the Internet of Things and robotics, stimulating students' creativity and passion and transforming them from passive to aware and active users of technology. Three thousand children got involved in the classes over the school year, and the web platform scuoladigitale.tim.it had 54,000 unique visitors, more than 92,000 visits to its pages and about 10,000 views of its video lessons. For the school year 2019–2020, the new edition of ScuolaDigitaleTIM will provide a training course on digital technology and in particular on coding, in schools throughout Italy and especially regions with fewer STEM students.<sup>1</sup> The students will be involved in practical workshops where they can try computing and creative learning for the first time, taking on real challenges and learning by gaming, on environmental sustainability, sensible internet use and the potential of new 5G networks. As in previous editions, the training course will be available on-site, with meetings planned in schools and online through the platform scuoladigitale.tim.it. Also, to further stimulate pupils and improve their experience and memories, the initiative involves an open contest for children who have been taking part both in class and online.

**DonaconTIM** is TIM's new charity ecosystem, linked to the old method of phone donations, to better support non-profit organizations' humanitarian, scientific and environmental projects, as well as emergencies in Italy and abroad. DonaconTIM is made up of a web portal, donacontim.gruppotim.it, and an app which gives the choice to donate to different fundraising campaigns easily and safely. In 2019 DonaconTIM gathered more than 410,000 euros from just under 300 donors.

In 2019 TIM also made some of its assets (technology, project management and human resources) available to the Radio Dynamo project of the **Dynamo Camp**, which hosts 200 families and 1,300 children aged six to 17 and suffering from serious illnesses, free of charge every year. The web-based radio station (radiodynamos.it) is one of the most popular activities at the camp, and also one of the major activities of its outreach program outside the camp, which allows it to reach out to many young people all year round who, for whatever reason, cannot come to the camp.

The Group looks favorably upon and, where appropriate, supports social, cultural and educational initiatives aimed at the enhancement of the individual and the improvement of their living conditions. Hence **Fondazione TIM's** (FTIM) mission to promote a culture of digital change and innovation, for integration, communication, economic and social growth. The investment strategy implemented by TIM Participações aims to promote the social inclusion of disadvantaged groups in Brazilian society, particularly children and teenagers, through educational projects that reinforce the concept of “enterprise without boundaries” including in the social sphere. It was in this spirit that **Instituto TIM** was founded in 2013.

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<sup>1</sup> STEM: science, technology, engineering and mathematics (also known as SMET) university courses.

## The commitment of Fondazione TIM

The TIM Group companies are particularly attentive to the needs of the communities in which they operate and implement wide-ranging initiatives and projects dedicated to their social and economic development. Fondazione TIM's (FTIM) mission is to promote a culture of digital change and innovation, and thus integration, communication, economic and social growth. FTIM can operate, in Italy and abroad, by the methods and with the tools that are considered appropriate in each case for it to achieve its statutory purposes.

In accordance with this mission, four areas of intervention have been identified.

- **Education:** innovation in teaching and education, promoting initiatives aimed at updating the technology in Italian schools and introducing radical innovations in educational methods and tools.
- **Innovation Culture:** a program of unconventional activities in the world of foundations for the purpose of promoting a culture of innovation and becoming a point of reference for this.
- **Social Empowerment:** non-profit-making organization are businesses. FTIM promotes both the better use of new technologies and improved management and efficiency to help the organizations “do good well”.
- **Historic and Artistic Heritage:** Italian artistic heritage represents excellence in the “technology of the past”. FTIM wants to contribute to its enhancement and public use through present-day technology.

The Fondazione TIM's projects take place according to the following criteria.

TOOLS	STRATEGIC OBJECTIVES	PROJECT SELECTION AND MONITORING
FTIM pursues its objectives by assigning contributions to projects put forward by third-party individuals and non-profit institutions, according to requirements established by the Board of Directors. Since 2015 FTIM has also run several such projects itself.	FTIM works to spread the culture of innovation, to foster solidarity and civil, cultural and economic development, and is committed to working for an increasingly digital, advanced and competitive Italy, to improve people's living conditions. This translates to innovative projects for the promotion and diffusion of science and technology, as well as the development of models, technological tools and systems to support non-profit associations.	<p>The selection is made based on the social impact of projects, which must be measurable, sustainable and replicable.</p> <p>The monitoring system is established according to the specific characteristics and objectives of each project. Monitoring is a requirement for all projects, whether selected by tender or directly. As well as being an eligibility requirement, it also provides an assessment parameter.</p>

In 2019, FTIM concentrated its resources on a number of important projects which allowed it to focus increasingly on technological innovation to improve the solutions identified and broaden the range of beneficiaries. Thanks in part to the push for open-source solutions, this will improve our impact on our national community exponentially.

In the realm of **education**, FTIM, CNR-ITD<sup>1</sup> and ANP<sup>2</sup> have launched the platform TRIS.2, the first I-MOOC<sup>3</sup> for training teachers at all Italian schools on how to manage an inclusive, hybrid class, that is to say one in which some pupils may have to be linked digitally from home. At the same time a Framework Agreement was signed with the MIUR to promote participation in the course and monitor the results of its implementation.

Remaining in the field of Education, the collaboration between FTIM and **Accademia della Scala** continued. It is intended to enhance and promote the work of one of Italy's centers of excellence, and to innovate in the field of training, in order to hand down valuable traditional trades, encourage young talent and get youngsters into the world of work; More information is available on the FTIM site ([www.fondazionetim.it](http://www.fondazionetim.it)).

<sup>1</sup> CNR-ITD Consiglio Nazionale delle Ricerche - Istituto delle Tecnologie Didattiche.

<sup>2</sup> NAP: Associazione Nazionale Dirigenti Pubblici e Alte Professionalità della Scuola.

<sup>3</sup> MOOC: Massive Open Online Courses.

FTIM has also collaborated with the University of Camerino, on the project "**Python@Camerino**", to respond to the earthquakes in Central Italy in 2016. The project involves setting up a permanent educational workshop with tools for training and the university's research on IT.

The project **Net4Neet**, in collaboration with InnovaFiducia, has come to an end. It involved a group of children and was the prototype of a platform for creating dialog between young people and the world of work and for building a community to fight social marginalization.

As part of its commitment to the **enhancement of historical and artistic heritage**, FTIM signed an agreement with the Municipality of Rome on December 2015 which provides funding of 6 million euros for the restoration of the Mausoleum of Augustus, a priceless monument from the 1st century AD.

In addition to the restoration convention, another agreement was signed with the municipal council for enhancement and multimedia activities, to be directly implemented by FTIM, an expense of 2 million euros. Work is expected to be complete by December 2021. Full details of the project can be found on the <http://www.mausoleodiaugusto.it/> website, which has received many national and international awards.

Also within the remit of artistic and historic heritage, FTIM has come out with "L'arte che accoglie: inclusione nei musei attraverso l'utilizzo di tecnologie innovative" ("welcoming art: inclusion in museums through innovative technologies"), which creates solutions based on innovative, accessible, effective and efficient technologies in order to make artwork in museums enjoyable for everyone. Sixty-three institutions took part in the competition (as leads or partners) and 42 projects were presented. The evaluations are under way to find the winner.

In 2019 FTIM opened an internal competition, "TIMPEOPLE for Good", to support the best proposals by people from the TIM Group.

In the field of **social empowerment**, FTIM has confirmed its decade-long commitment to people with special needs. The program will last several years and involve screening, IT campuses, digital books and the dissemination of a more inclusive approach in schools. "Dislessia Amica Livello Avanzato" ("friends of dyslexics: advanced level") is a project begun in the 2018-2019 school year, aims to qualify 85% of Italian schools as "friends of dyslexics", through a free e-learning course for all teachers, from nursery to high school, with specific training for different school years.

FTIM knows that inclusion begins with recognizing and understanding a problem, so in 2019 it started a big digital campaign for World Dyslexia Day. Its aim is to create a more inclusive atmosphere, based on a culture of teaching children with specific disorders. The campaign wants everyone to see what it is like living with this problem.

Elsewhere in social empowerment, FTIM is dealing with communication and developmental disorders through two important initiatives. Smart@pp 2.0 involves setting up a platform to train teachers how to monitor children's development and use teaching strategies favored for developmental problems in nurseries. In the field of autism, we have opened the tender for "Liberi di comunicare. Tecnologie intelligenti per superare le barriere dell'autismo" ("Free to communicate: intelligent technologies for getting over the barriers of autism"), through which we intend to use the most innovative technologies to create effective, adaptable and lasting solutions for people with autism.

Last but not least in social empowerment, we are bringing to a close the "SmarTevere" project, done with Agenda Tevere Onlus. This involved sustainable growth, environmental and cultural preservation and urban and social regeneration on the river Tiber. We wanted to give the river back to Rome and turn it into a shared place.

In the interests of a **culture of innovation**, FTIM launched Unistem Reloaded, which will take place over 2019 and 2020, in a joint action with Centro UniStem at the University of Milan, to inspire young people to choose training and professional courses in science and technology, spread reliable and provable scientific information in a stimulating, fun way, and ensure the results have a real impact. Within this we also created Unistem Tour, a two-year project for thousands of high-school pupils aged 16 to 19, in which some of the top Italian scientists will stop at 30 schools around the country, from North to South and on the islands.

## Instituto TIM

In 2013, the TIM Institute was founded with the aim of defining strategies and providing resources for the dissemination of science and innovation to support the development of the community in Brazil, particularly by means of mobile technology.

Four areas of activity were identified in which to develop projects:

- education/teaching
- application
- work
- social inclusion

The Instituto TIM's projects are carried out according to the following criteria.

TOOLS	STRATEGIC OBJECTIVES	PROJECT SELECTION AND MONITORING
<ul style="list-style-type: none"> <li>• Partnerships with organizations, institutions and public and private entities.</li> <li>• Free software/open source technologies and materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of educational projects for the social inclusion of young people and teenagers.</li> <li>• Implementation of training projects to encourage daily use of the Internet and mobile phones as tools for social development and inclusion.</li> </ul>	<ul style="list-style-type: none"> <li>• Projects are selected according to their relevance to the company's strategies and requirements.</li> <li>• Initiatives are monitored and a final evaluation is carried out on completion. A report is drawn up for each project that provides a detailed description of the initiative and the results achieved, also in quantitative terms.</li> </ul>

Instituto TIM's work has already reached all 26 Brazilian states and the Federal District, benefiting more than 700,000 people.

Below are some of the projects it has completed.

### O Círculo da Matemática do Brasil (Brazilian Math Circle)

One of the greatest obstacles to scientific and technological progress in Brazil is the poor standard of maths teaching in schools. According to the Ministry of Education, only 42% of students in the third year of primary school can do simply arithmetic like addition and subtraction. In PISA<sup>1</sup> in 2018, based on the results achieved in maths by its students, Brazil came 70th on a list of 79 countries. By focusing attention on the first few years of primary school, the O Círculo da Matemática do Brasil project, working with its founders, professors Bob and Ellen Kaplan of Harvard University, introduces the Maths Circle approach to the Country, perfecting and adapting its content to the Brazilian context. Launched in 2013, the project has involved around 25,000 pupils and 4,500 teachers in 29 cities.

<sup>1</sup> Program for International Student Assessment.



## TIM Tec

One of the Brazilian government's priorities is to increase the availability of professional and technological education courses. In 2011, the government launched PRONATEC<sup>1</sup> on which 6 million people are currently enrolled. One of the initiatives of PRONATEC is the e-TecBrasil Network, which provides free technical and training courses and long-distance qualifications.

TIM Tec is a distance learning platform that uses the MOOC (Massive Open Online Courses) concept<sup>2</sup>. These courses, which are provided and made available for free on the platform, are intended for pupils at high schools and students at technical colleges. Anyone can enrol on the courses, which teach programming languages and how to create databases, websites, games and many other things. There are also courses for primary school teachers and others intended to improve the skills considered to be basic for the training of any professional, such as how to write well. The technology and content of the TIM Tec platform are shared with Federal Institutes of Education, Science and Technology, with the support of the Department of Vocational and Technological Education of the Ministry of Education (SETEC/MEC). The TIM Institute supports the Federal Institutes in the process of installing and using the platform. Currently the platform offers 30 courses, on which about 60,000 people are enrolled.

## Busca Ativa Escolar - Instituto TIM and UNICEF

There are 3.8 million children and teenagers out of school in Brazil. These are young people from 4 to 17 years old who are being deprived of rights guaranteed by the constitution and of developing skills that will be necessary in their future adult lives. To ensure the right to learn, the United Nations Children's Fund (UNICEF) launched the initiative to cope with school exclusion *Fora da Escola Não Pode!* (Out of School Children).

In 2014, Instituto TIM joined UNICEF to develop the technological solution *Busca Ativa Escolar*, a free software platform that will facilitate and encourage the work of municipalities in the active search of those 3.8 million children and teenagers. The objective is to provide public managers with an innovative approach to reach out to children who are out of school by means of Information and Communication Technologies (ICTs).

The technological solution enhances the coordination of different areas of government, as everyone has access to the same database. The system allows each municipality to monitor their children out of school, cross information through filters, identify the highest demands, sort them by neighborhood or age group, check the open and resolved cases. With this type of quality information, public managers have more subsidies to monitor and make decisions on how to tackle school exclusion in their municipality. Now, more than 3,000 Brazilian municipalities are enrolled in the platform.

Further information about Instituto TIM's programs and initiatives is available in the TIM Participações Sustainability Report at <https://institutotim.org.br/>.

## Corporate Governance

[GRI 102-18] [GRI 102-19] [GRI 102-24] TIM S.p.A.'s governance system is structured in the conventional way and provides for a management body (Board of Directors) and a control body (Board of Statutory Auditors). The Board of Directors is appointed by the Shareholders' Meeting on the basis of lists presented to those entitled to vote that overall own at least 0.5% of the ordinary share capital<sup>3</sup>. [GRI 102-22] [GRI 102-24] The only stakeholders represented in the Board of Directors are the shareholders. Directors' powers are granted (and revoked) by the Board of Directors, which determines the purpose, limits and methods by which they are exercised.

TIM's Articles of Association require the least represented gender to account for at least one third of the total number of directors, rounded up to the next unit in the event of a fraction.

<sup>1</sup> Programme for Access to Technical Education and Employment.

<sup>2</sup> MOOC: Massive Open Online Courses.

<sup>3</sup> or any other amount that may be required by the regulations issued by Consob.

TIM's Articles of Association provide that at least half of the candidates drawn from the majority list and at least half of those drawn from the minority lists must meet the independence requirements set by law, with the result that the number of TIM's independent directors is higher than that required by law. The qualification requirements for Directors' independence are established by the CLF<sup>1</sup> and the Corporate Governance Code of Borsa Italiana, to which TIM adheres. From January 1, 2020, with the coming into force of Law no. 160 of December 27, 2019, an increase in the "pink quotas" present in the corporate bodies of listed companies is expected, ranging from one third (as provided for in the TIM statute) to two fifths of those chosen. This will entail an adjustment of the statute, which will have to incorporate the new legislative provision, but will have no effect on the composition of the TIM Board of Directors, which already respects this proportion, as there are currently 6 female members out of a total of 15 directors.

[GRI 102-22] The Board of Directors in office as of May 4, 2018 consists of 15 members, including 12 independents. On the company's website (telecomitalia.com) under the heading About Us/Board of Directors/Composition each director's role, nationality, appointment date, list of presentation, independence status and membership of the Board of Directors are shown; the curriculum vitae of each member is also available on the Board of Directors' website. The Directors' skills range from specific TLC sector experience to media and content, from mergers and acquisitions to risk management and top management in large companies. More details are available via the telecomitalia.com website. [GRI 102-31] 13 meetings of the Board of Directors were held in 2019.

[GRI 102-27] The Directors take part in specific meetings with the management or external consultants, aimed at providing adequate knowledge of the industry in which TIM operates, business dynamics and their evolution. Workshops on new technologies and educational-informative meetings are held prior to strategic meetings. Updates regarding the relevant legislative framework are provided in specific briefing notes. During 2019 the Councilors were also involved in training meetings on sustainability; in December 2019 a meeting was held with Enrico Giovannini, spokesman of ASviS<sup>2</sup>.

[GRI 102-18] [GRI 102-24] The Committees are established and renewed in order to: support and monitor the implementation of strategies and the development of plans and results; ensure the overall coordination of business actions and the governance of related cross-cutting issues; strengthening the operational synergies needed between the different functions involved in the different innovation, technological, business and support processes. encourage the integrated development of the Group's innovation processes.

The committees currently set up within the Board of Directors are the Control and Risk Committee, the Nomination and Remuneration Committee, the Related Parties Committee and the Strategy Committee. Each Committee has its own rules of procedure which describe the composition of its members, how they are appointed and how they operate: more details are available on the telecomitalia.com website.



[GRI 102-28] For the 2019 financial year, the self-assessment of the size, composition and operation of the Board and its Committees was carried out with the support of the consultant Egon Zehnder. The board review is carried out every year (since 2005). The assessment methods and results are illustrated in the Report on Corporate Governance. Sustainability issues were not addressed in the 2019 self-assessment.

<sup>1</sup> Consolidated Law on Finance.

<sup>2</sup> <https://asvis.it/>

[GRI 102-19] [GRI 102-20] [GRI 102-23] [GRI 102-26] The Board of Directors of June 27, 2019 took note of the resignation of Mr. Amos Genish in whose place Mr. Franck Cadoret was accepted to the Board.

Director Cadoret has been a member of the Strategic Committee since August 1, 2019.

The Board of Directors of October 21, 2019 appointed Salvatore Rossi as Chairman of the Board of Directors after Chairman Fulvio Conti resigned on September 26, 2019.

In addition to the powers granted by law, the Chairman (who plays a direct part in the Strategic Committee) is granted the governance of Fondazione TIM.

The proxies and powers granted to the Chief Executive Officer include overall responsibility for the company and administration activities, responsibility for the development and implementation of strategic, industrial and financial plans and all the organizational responsibilities to ensure the management and development of the business in Italy and South America [GRI 102-32] in addition to the responsibility for sustainable activities, including preparation of the Sustainability Report/Consolidated Non-Financial Statement.

[GRI 102-19] [GRI 102-20] The system by which the CEO delegates powers to the departments that report to him, and they in turn to their staff, is the subject of a specific company procedure that establishes the methods by which this system must be implemented (Granting and Revocation of Powers) and the regular checks on it. Sustainability matters are delegated to the head of the Administration & Financial Statements and Sustainability Reporting Department to which the Sustainability Reporting, Monitoring and Relationship department reports. The first organizational reports may in turn delegate certain powers to their collaborators; [GRI 102-21] in particular, powers are granted in this way to manage relations with stakeholders (customers, suppliers, public administration, employees, etc. described in the Stakeholder Engagement section of this document).

[GRI 102-25] The company procedure for carrying out related-party transactions<sup>1</sup> drawn up in compliance with Consob Regulation No. 17221 of March 12, 2010, is systematically updated (last revision July 24, 2018) and is available on the company's website (<https://www.telecomitalia.com/tit/it/about-us/governance-system/regulations.html>) and outlined in the Report on Corporate Governance (Directors' interests and related-party transactions). The disclosure of any transactions with related parties during the relevant period is included in the "Transactions with related parties" chapter of the Annual Financial Report.

On October 16, 2017 and November 2, 2017, the Presidency of the Council of Ministers issued measures taken on the basis of the investigation regarding the exercise of the powers deriving from the so-called "golden power". In 2019 the Legislator, in addition, used a specific prime ministerial decree on 5 September to impose the exercise of special powers with regard to the supply of 5G technology produced outside Europe. Further details can be found in the Group's Consolidated Financial Statements.

[GRI 102-29] [GRI 102-30] [GRI 102-11] The internal control and risk management system consists of a set of rules, procedures and organizational structures intended to ensure the healthy and proper management of the company, in a way that is consistent with the established goals, through an appropriate key risk identification, measurement, management and monitoring process. Being responsible for the internal control and risk management system the Board of Directors defines the system guidelines, verifying their adequacy, effectiveness and proper operation, so as to ensure that the main risks facing the company (including operational, compliance, economic and financial risks) are correctly identified and managed over time.

The establishment and maintenance of the internal control system are entrusted to the Executive Director and to the Executive responsible for preparing the company's accounting documents in his/her area of responsibility, so as to ensure the overall adequacy of the system and its effectiveness, from a risk-based perspective, which is also considered when determining the agenda of Board meetings. The coordination of subjects involved in the internal control and risk management system is outlined in the Report on Corporate Governance. The internal control system is contained in the so-called "Organizational Model 231", i.e. an organizational and management model adopted pursuant to Legislative Decree 231/2001, aimed at preventing offenses that may result in liability for the company.

<sup>1</sup> "Related parties" of TIM refers to physical or legal entities related to TIM pursuant to the Consob regulations. The Procedure also applies to the parties to significant shareholders' agreements, pursuant to Art. 122 of the CLF that governs candidacies for the position of Director of the Company, if it turns out that the majority of Directors appointed has been drawn from the slate presented by participants in shareholders' agreements. Further details are available in "Transactions with related parties" in the Report on Operations.

[GRI 102-33] [GRI 102-34] [GRI 102-17] In November 2015, TIM implemented the new Whistleblowing<sup>1</sup> procedure, which provides for the centralized management, by the Audit Department, of all reports -including those that are the responsibility of the Board of Statutory Auditors, particularly in its role as the 231 Supervisory Body -via a compute app which whistleblowers can use to access the company Intranet. Since 2016, this reporting channel has also been accessible via the Group's website. Reports may be made by any employee, collaborator, consultant, freelance worker, as well as third parties who have business relations with the Group. The system assigns each report a unique identification code which enables the whistleblower to check the processing status in anonymity.

[GRI 102-17] [GRI 103-1] As stated in article 4 of the Group Code of Ethics and Conduct, any requests for clarification regarding the appropriateness of one's own conduct or the conduct of other people, in order to ensure full compliance with the Code and the values set by the Code itself, must be addressed to the Head of the Audit Department of TIM S.p.A. or to the Head of the Audit Department of the Group's overseas company directly involved, in accordance with specific internal procedures.

[GRI 102-17] Using the Whistleblowing procedure, the entities must be promptly informed of the following by the recipients of the Code and those who have undertaken to comply with it:

- any violations, requests or inducements to violate legal provisions or regulations, provisions of the Code and internal procedures with regard to the activities and services of interest to the Group;
- any irregularities or negligence in accounting procedures, keeping of relevant accounting documentation, fulfilling reporting obligations or internal management in Group companies.

There are no negative consequences for those who have made a report in good faith and the confidentiality of the identity of people making reports is in any case guaranteed by appropriate internal procedures, subject to legal requirements.

No recipient of the Code, employee or third party having business relations with the Group can be subject to sanctions or otherwise discriminated against if he/she refuses to perform actions or adopt a conduct which are considered, in good faith, to infringe the Code, even if this refusal should result in a loss of business or other adverse consequence for the company's business and/or the Group.

*In Brazil* TIM Participações uses an automated end-to-end management system of reports, accessible via the intranet and from the company's website, automatically recording all reports received and allowing the reporter to monitor the progress made on each case.

[GRI 102-34] In 2019, the Whistleblowing procedure resulted in 165 reports made in Italy and 927 *in Brazil*. The Human Rights section of this report illustrates the reports received concerning alleged violations of Human Rights and employment rights. The Board of Statutory Auditors' Report states the number of reports received by the Board of Statutory Auditors and provides a summary of the assessments carried out by the Board itself.

[GRI 102-35] [GRI 102-36] The remuneration policy for the members of the Board of Directors is determined in accordance with legal requirements and the bylaws, according to which:

- [GRI 102-37] The Shareholders' Meeting determines the total gross annual remuneration of the Board of Directors (and of the directors holding specific offices: Chairman and CEO); expresses an opinion on the first section of the Remuneration Report (RR); passes resolutions regarding remuneration plans based on the allocation of financial instruments;
- The Board of Directors resolves, on the proposal of the Nomination and Remuneration Committee, on the allocation of the fees determined by the Shareholders' Meeting (when established as a total amount for the body as a whole); it defines, again on the proposal of the Committee, the remuneration policy of Executive Directors and Key Managers with Strategic Responsibilities. The Board of Directors is also responsible for making proposals to the Shareholders' Meeting regarding remuneration plans based on the allocation of financial instruments for Directors and employees and for drawing up the Remuneration Report (RR).

<sup>1</sup> The aforementioned Procedure was being updated, also following the entry into force of Law No. 179 of November 30, 2017, "Provisions on the protection of parties reporting offenses or irregularities of which they become aware of in the context of a public or private employment relationship" and was published on January 28, 2019.

To ensure that the choices made regarding remuneration are appropriately investigated, in accordance with the rules on transparency and the strict regulations on potential conflicts of interest, the Board of Directors relies on the support of the Nomination and Remuneration Committee. In performing its duties, the Committee (the meetings of which are attended by the Chairman of the Board of Statutory Auditors or, if he/she is unavailable, by another Auditor appointed by him/her) relies on the assistance provided by appropriate structures of the Company and can also rely on the support of external consultants whose position does not compromise their independence of judgement.

[GRI 102-35] With the exception of the Chairman and the CEO, the Directors receive fixed remunerations only. The “Remuneration paid to members of the management and control body and key managers with strategic responsibilities” table in the RR states all the types and amounts of remuneration received by each director. Details of the fixed and variable remuneration components (including any stock option), benefits and severance pay attributed to the CEO, the Chairman and the key managers with strategic responsibilities are illustrated in detail in the Remuneration Report (for directors with strategic responsibilities the data is aggregate). In particular, the objectives assigned to the Chairman and CEO for 2019 are mainly of an economic and financial nature.

The sustainability targets used to determine the management incentive system are stated in the Remuneration Policies section of the TIM People section of this report.

## Sustainability governance system

[GRI 102-18] [GRI 102-26] Monitoring of the Group’s socio-environmental matters, as well as the identification of sustainability initiatives and projects, lie with the Sustainability Reporting, Monitoring and Relationship Department, hereinafter “SRMR” - for Administration & Financial Statements and Sustainability Reporting (“AFSSR”) - and the Corporate Digital Communication & CSV Projects Department, which reports to the Head of Institutional Communication.

[GRI 102-32] The AFSSR department of the Chief Executive Office reports to the CEO on the matter of the Sustainability Report/Consolidated Non-Financial Statement, including the materiality analysis, and periodically reports to the Internal Control and Risk Committee. The latter acts as a corporate sustainability and corporate social responsibility overseer, ensuring the consistency of actions carried out with the principles of the Group’s Code of Ethics and Conduct, which expresses the values adopted by the Group and reference regulations.

[GRI 102-31] During 2019, the Board of Directors met with those responsible for sustainability activities in February for the approval of the Sustainability Report, in addition to three meetings in December, one of which was conducted by Prof. Enrico Giovannini, as previously reported.

[GRI 102-19] Socio-environmental responsibilities are delegated, in the same way as all other powers delegated by the company, by applying the procedure granting and revoking powers. In particular, [GRI 102-20] responsibility for monitoring and communicating environmental and social issues rests with the SRMR Department, which apart from drawing up the Sustainability Report, manages relations with rating agencies. Responsibility for managing individual socio-environmental themes remains with the departments that directly manage operations relating to these themes. [GRI 102-26] These latter departments in particular identify specific strategies and targets for improving socio-environmental performance, each in its own area of responsibility.

[GRI 102-21] Responsibility for dialog with stakeholders is delegated to the departments that are operationally responsible for dealing with the Company’s stakeholders.

## References

In defining and implementing its sustainability strategy and programs, the Group is inspired by the guidelines issued by the main global guidance and standardization organizations in the field of corporate responsibility. The system of sustainability management also takes into account the principal reference regulations and international standards:

- decrees, directives, recommendations and communications of the Italian Parliament and the European Commission;
- the OECD guidelines directed at multinational enterprises;

- standards UNI EN ISO 9001 and 14001 governing quality and environmental management systems;
- principles of the International Labour Organization (ILO) Conventions on respecting the fundamental rights of workers;
- the Social AccountAbility 8000 standard (SA 8000), aimed at promoting respect for Human Rights and working conditions by companies and their supply chains;
- GRI Sustainability Reporting Standards, comprehensive option;
- AA1000 AccountAbility Principles Standard;
- standard UNI ISO26000, for private and public organizations of all sizes.

[GRI 102-12] [GRI 102-13] TIM has long been a member of many environmental and social organizations, both national and international, formed to disseminate universally recognized values including respect for Human Rights, employment rights and environmental protection. The main associations which the Group is signed up to or part of are listed below.

- Global Compact, the main global benchmark launched in 2000 by the UN, to which TIM has been signed up since 2002. TIM is a member of the Global Compact Network Italy;
- ITU (International Telecommunications Union) the UN's main agency for Telecommunications and Information, as well as a reference point for governments and the private sector in the development of networks and services;
- ETSI (European Telecommunications Standards Institute), the main European standardization organization for telecommunications;
- GSM Association, an international association of leading mobile phone operators, conducts studies on the positive contribution of technology to reduce greenhouse gas emissions and achieve the UN's Sustainable Development Goals;
- GRI, a body set up in 1997 by CERES, Coalition for Environmentally Responsible Economies, with the aim of developing globally applicable guidelines for drawing up sustainability reports;
- GeSI (the Global e-Sustainability Initiative), a global partnership of ICT companies to promote the sustainable development of new technologies;
- ETNO (European Telecommunications Network Operators' Association), a trade association which aims, among other things, to develop a competitive and efficient European telecommunications market through coordination between operators and dialog with state bodies;
- JAC (Joint Audit Cooperation), a joint initiative between telecommunication operators to perform sustainability audits of the production plants of their respective suppliers in geographical areas that present a high social and environmental risk. TIM is one of the three founding members;
- CSR Manager Network Italia, the association for the sharing of trend studies and analysis on topics related to sustainability and business performance improvement through the integration of sustainability best practices.

## Codes, Policies and Charters

[GRI 102-16] In the belief that the success of the company cannot be separated from business ethics, the Code of Ethics and Conduct and the Human Rights Policy of the TIM Group set out the objectives and values of the Company's activities in respect of the main stakeholders with whom the Group interacts.

The Service Charters, which are intended to simplify the relationship with customers and make it more direct, set out the principles of conduct and undertakings given by TIM regarding the quality of the services offered. They also provide information regarding the ongoing improvement of quality standards and contact channels available to customers. The Service Charters are available via the Group's commercial websites (tim.it, impresasemplice.it.).

The General Conditions of subscription for fixed telephony are also published in telephone directories.

Furthermore, in order to comply with the various resolutions of the Italian Communications Authority regarding quality, the objectives set for each year for the individual services (fixed and mobile voice services, Internet access services, call center services for customer support) are published on the relative websites.

Among the other codes relevant to sustainability to which TIM has signed up, we should mention the Equal Opportunities Charter, the Self-regulation code for mobile services, the Code of Conduct for premium rate services and the Corporate Governance Code for commercial communication (available on the telecomitalia.com website).

Information on the Group's other commitments are available in the Sustainability section of the website, via the following link <http://www.telecomitalia.com/tit/en/sustainability.html>.



## Fight against corruption

[GRI 103-1] [GRI 205] Corruption is amply acknowledged as one of the factors that harms company competitiveness, socio-economic growth and community well-being.

Confirming the ongoing Group commitment to fight any form of corruption, in 2019 the Parent, TIM S.p.A. adopted the Anti-bribery Management System (also 'SGA') for which it attained UNI ISO 37001 "Anti-bribery Management Systems" certification through a credited body. The anti-bribery management system was defined to support the company in the prevention, recognition and response to actions linked to corruption, in accordance with applicable anti-corruption laws and the other voluntary undertakings that apply to its business, and is integral to the broader internal control system implemented by the company.

The SGA includes the following tools:

- Code of Ethics and Conduct;
- the Group Anti-Corruption Policy (adopted in 2012 with latest update in 2019), to provide a systemic reference framework for how to manage preventing corruption<sup>1</sup>;
- the document "Anti-Corruption Management system of TIM S.p.A.";
- company protocols, especially Organization and Operating Procedures.

The TIM Anti-corruption Management System integrates the broader anti-corruption compliance program, including the 231 Organizational Model (approved by the Board of Directors in 2003 and recently updated in July 2018) which also includes the corruption prevention area. Moreover, during 2019 a 231 Organizational Model revision and updating process began, concerning how the model was designed and the risk assessment method. The new 231 Organizational Model is expected to be released in the first quarter 2020.

[GRI 205-1a] The anti-bribery management system applies to TIM and the members of its corporate bodies, employees and various business partners. Subsidiaries are required to apply the anti-bribery management system or certain controls for the prevention of corruption to the extent that is reasonable and proportional with respect to the risk of corruption that said subsidiaries are subject to.

From an organization point of view, the Compliance Department, assigned to the Group Compliance Officer, is attributed the compliance function role for preventing Corruption, responsible for implementing and monitoring the Anti-bribery Management system in the company and, more generally, its compliance with Standard ISO 37001 requirements. Moreover, the Steering Committee 231 is assigned general responsibility for implementing and compliance with the Anti-bribery Management System.

[GRI 103-2: Management Approach] [GRI 205] The Anti-corruption Policy identifies the following sensitive areas, specifically monitored to guarantee compliance with the prohibition to accept or offer bribes:

- gifts and entertainment expenses;
- events and sponsorships;
- donations/membership fees;
- buying of goods and services;
- consultancy, brokering, Business Partner;
- joint ventures, acquisitions and sales;
- screening, recruitment and management of staff.

<sup>1</sup> available at the link ([www.telecomitalia.com](http://www.telecomitalia.com), section The Group, Governance/Procedures System)

**[GRI 205-1b]** When the corruption risk assessment process was over, TIM identified a low corruption risk related: (i) to specific categories of transactions, projects or activities, (ii) to relationships expected or already in place with relevant third parties or (iii) specific categories of people (relevant positions). On these transaction, project and activity categories, Relevant Third Parties or Relevant Positions due diligence audits were carried out (Anti-corruption Due Diligence) going in-depth into the type and extension of the corruption risks.

*In Brazil*, related to TIM Participações, the company adopts the foreign version of the 231 Organizational Model of TIM constituting the Anti-corruption Compliance Program applying the local anti-corruption law (Ley 12.846/13). Consistent with provisions required at group level, in September 2018, the Brazilian subsidiary adopted a new version of the Código De Ética e De Conduta e della Política Anticorrupção. Moreover, during 2019, the project to adopt Standard ISO 37001 was launched, with the assessment phase of the processes/activities relevant at company level, to identify any gaps with respect to adoption of the standard for subsequent certification. The Standard is expected to be adopted in the second half of 2020.

**[GRI 103-3] [GRI 205]** The Head of the Compliance Department is appointed by the Board of Directors of the Company to which it reports.

The variable short-term remuneration plan (MBO) assigns the Head of Department objectives in keeping with the prevention of crimes under Legislative Decree 231/2001 and applying what is set forth by ISO 37001, in compliance with the relative regulations.

The Group adopts the Whistleblowing Procedure that, unless specifically forbidden by local laws, encourages and allows employees and third parties in general to report an attempted, suspected or effective corruption action, in good faith or based on a reasonable conviction, by reporting it to the TIM Audit Department. For that purpose, a single report transmission channel is available thus allowing reports to be managed with a maximum guarantee of confidentiality and protects those making a report in good faith or based on a reasonable conviction, of an attempted, suspected or effective action of corruption or a breach of the Code of Ethics and Conduct and/or the 231 Organizational Model and/or the Anti-corruption Policy against reprisals.

**[GRI 205-3a] [GRI 205-3b] [GRI 205-3d]** No incident of corruption has taken place in the Group companies in the past 3 years, nor have any legal proceedings been started on grounds of corruption against Group companies in the same period. It follows that none of the Group's companies recorded penalties or concluded plea bargains in relation to corruption in the last three years. **[GRI 205-3c]** With regard to suppliers, in the past 3 years TIM has never terminated a contract for reasons related to corruption.

The Group's commitment to the topic is also demonstrated by its participation in various working groups. TIM is a member of the "231 and Legality" Working Group organized as part of the Confindustria initiatives and during the course of 2018 contributed to the drafting of the new Confindustria Guidelines. In addition, TIM participates in the working groups set up at B20 for the implementation of the recommendations made at G20/B20 level on anti-corruption matters.

**[GRI 103-3] [GRI 205]** At the end of 2018, TIM took part in a survey conducted by Transparency International amongst the main Italian companies in the private sector to map the anti-corruption commitment. It was concluded with an index on transparency (Business Index on Transparency-BIT).

**[GRI 103-2: Management Approach] [GRI 205]** Moreover, since 2016, TIM has participated in the Business Integrity Forum promoted by Transparency Italia to develop activities in the private sector relating to cultural programs and the dissemination of tools to support integrity, transparency and anti-corruption. On June 13 and 14, 2019, TIM took part in the Business Integrity Events, an initiative by Transparency International Italy in collaboration with the Pisa Scuola Superiore Sant'Anna focused on themes concerning integrity.

**[GRI 103-2: Management Approach] [GRI 205]** The Anti-corruption Management System and the Anti-corruption Policy, the 231 Organizational Model and the Code of Ethics and Conduct are communicated to employees through specific initiatives and are published on the intranet portal. The Code of Ethics and Conduct and the Anti-corruption Policy are communicated to third party recipients through publication on the website, whereas third parties doing business with Group companies are obliged to commit contractually to complying with the principles laid out in those documents.

TIM regularly provides suitable, appropriate training to corporate bodies and employees on anti-corruption subjects as well as on application of the 231 Organizational Model. As part of the on-boarding training for new recruits to TIM S.p.A., specific anti-corruption is also provided.

Every two or three months, the Compliance Department sends all first and second reporting levels in the organization a report containing the main regulatory and legal novelties also on anti-corruption and the responsibilities of bodies.

The targeted training campaigns are periodic and, in any case, are held when internal regulations, such as the 231 Organizational Model, are updated.

#### [GRI 205-2] Training campaigns

TIM S.p.A	2019		2018		2017	
	number	%*	number	%	number	%
Senior Managers	8	1.4%	2	0.3%	344	51.2%
Middle Managers	604	2.0%	25	0.6%	2723	60.7%
Office Staff	86	0.2%	202	0.4%	29,544	54.4%
Total	698	1.3%	229	0.4%	32,611	54.9%

\*Number of participants out of total of the category

[GRI 205-2] In Brazil, anti-corruption training, in e-learning or in the classroom, is mandatory as part of the Pertencer programme; In 2019, the online course for the Anti-Corruption Compliance Program (Organizational Model) was taken by 95% of employees; the same percentage for the Code of Ethics online course.

## Legal framework and compliance

[GRI 103-1, 103-3: Management Approach] [GRI 206] [GRI 415] The Group's activities are conducted in full compliance with current laws in the countries in which it operates and with universally accepted ethical principles, based on transparency, fairness and loyalty.

[GRI 103-2: Management Approach] [GRI 415] [GRI 206] [GRI 415-1] In particular, the Code of Ethics explicitly bans any direct or indirect disbursements, contributions, advantages or benefits of any kind to political parties, political movements or trade unions or to their representatives or candidates.

[GRI 206-1] The TIM Group was identified as a participant in the following major litigations related to anti-competitive behavior, violations of anti-trust regulations and monopoly practices.

Anti-trust case A428 Year 2013 for abuse of a dominant position. In 2017 TIM was notified of the final outcome by the AGCM, which recognized TIM as fully compliant with the A428 provision and as such not punishable by non-compliance sanctions. Vodafone disputed the final decision adopted by the AGCM on the non-compliance investigation with the Lazio Regional Administrative Court (TAR). TIM filed an appearance, as in the other lawsuits filed in March 2017 by the operators CloudItalia, KPNQWest Italia and Digitel.

Anti-trust proceedings I761 Year 2013 The AGCM has granted TIM an extension to the preliminary investigation started in March of the same year regarding some companies active in the sector of fixed network maintenance services and aimed at verifying the existence of a prohibited agreement in accordance with Article 101 of the Treaty on the Functioning of the European Union (TFUE). In December 2019, the Council of State ruled in favor of TIM and canceled the AGCM I761 provision, remanding the task of implementing ex novo the preliminary investigation to the AGCM, within the limits decided by the Council of State itself.

Anti-trust case A514 Year 2017 regarding the possible abuse of dominant position in the markets of wholesale access and retail services using the broadband and ultra-broadband fixed network. In July, 2018 TIM filed proposed commitments which, if accepted by the Authority, would close the investigation without any offense being established or sanction being administered. In September 2019 the AGCM resolved on a new extension of the procedure's deadline, setting it in February 2020.

Anti-trust case I799 Year 2017 investigation for possible breach of Article 101 of the TFUE (prohibition of agreements that restrict competition) against TIM S.p.A. and Fastweb S.p.A. TIM, in agreement with Fastweb, submitted some amendments to the AGCM, in the form of proposed commitments, aimed at closing the investigation without any breach being ascertained and, therefore, without any fine. In March 2018 the AGCM resolved to approve the commitments, making them binding on the parties, and closed the case without imposing a fine.

Anti-trust case I820 Year 2018 the AGCM initiated I820 preliminary proceedings against the companies TIM, Vodafone, Fastweb, Wind Tre and the industry association Asstel to investigate the alleged existence of an agreement among the major fixed-line and mobile telephone operators to restrict competition by coordinating their respective commercial strategies, in breach of Article 101 of the TFUE. On January 31, 2020, TIM was notified of the closing of the investigation, where the AGCM resolved that an agreement between Telecom, Vodafone, Fastweb and WindTre existed but excluding from this the Asstel association. The fine imposed on TIM for participating in the anti-competitive agreement amounts to 114,398,325 euros. TIM intends to appeal against the sanctions.

Anti-trust case PS11379 – mobile winback actions Year 2019 For the alleged misconduct of mobile winback actions. The challenged aspects concern deceptive communication given to the target of reference and the aggressiveness of the conduct. Proceedings concluded in December 2019 and confirmed unfair conduct, with a sanction of 4.8 million euros for TIM (VO sanctioned for 6 million euros and WIND/3 for 4.3 million euros). The decision will be challenged before the TAR.

Antitrust Proceedings IP 312 - Fiber non-compliance Year 2019 by autonomous decision of the AGCM regarding the alleged non-compliance with the PS10696 measure on advertising communications of offers in fiber. TIM stated its defense and the investigation was concluded on August 2019 with a fine of 200,000 euros.

Anti-trust case PS11532 - "TIM in Nave". Year 2019 the investigation concerns the "TIM in Nave" services with allegations of misleading customer information and aggressiveness. Consistent efforts to improve information so as to make consumers fully aware of how "TIM in Nave" services operate were presented. The investigation is expected to be concluded in May 2020 and no sanction is anticipated in the event of its validation.

Anti-trust case IP 327 - non-compliance with IBAN discrimination, Year 2019 Authority acting on its own motion, the investigation concerns the alleged non-compliance with PV4 practices related to IBAN Discrimination in April 2019. In particular, the AGCM disputes that the direct debit mandate process on the web channel is not yet automated and as such the customer cannot manage this activity independently. TIM has removed all form of discrimination from direct debit mandates with banks in Italy and in the SEPA area and introduced full automation of the mandate process on the web. The investigation is expected to be concluded in April 2020. Similar investigations towards other major operators have also been set in motion.

Privacy Guarantor Procedure On January 23, 2020, the Guarantor Authority for the protection of personal data notified the Company of the final provision of the procedure started in July 2019.

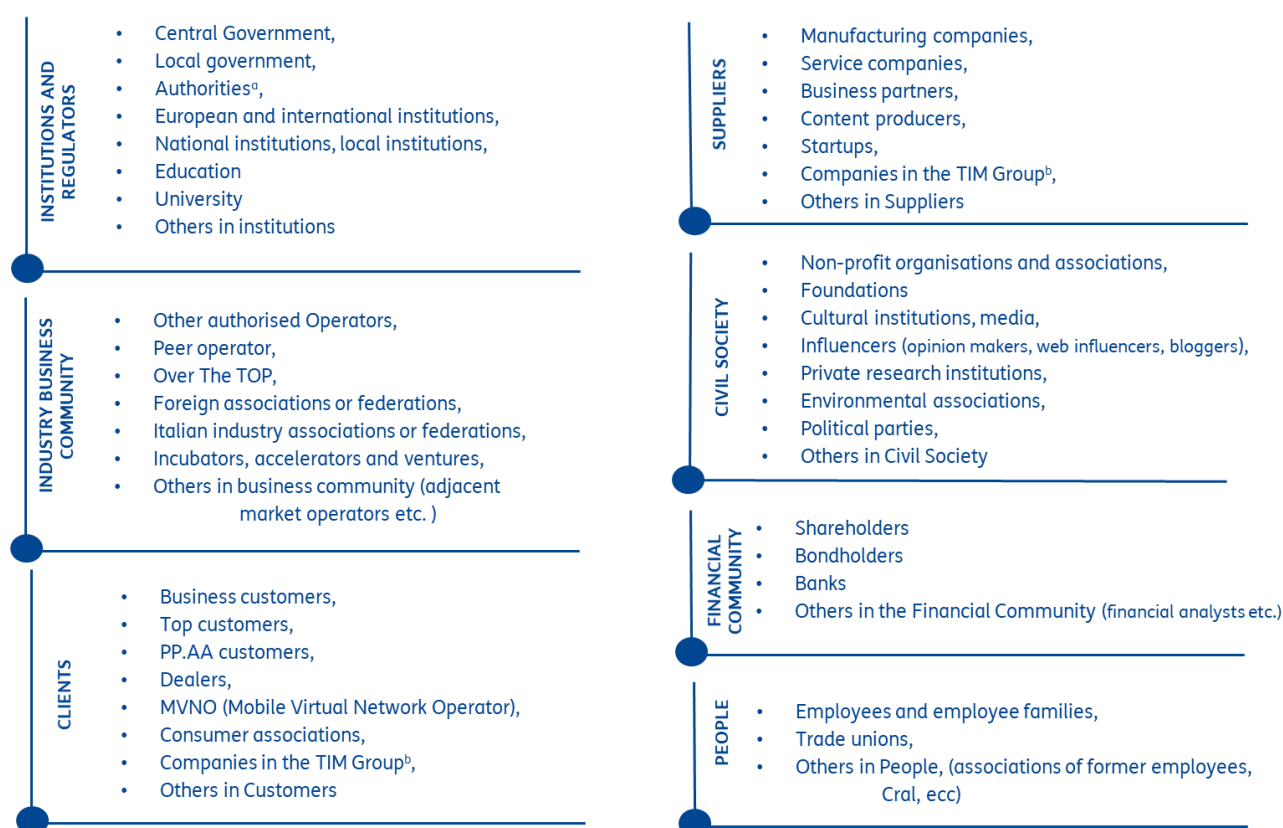
With the provision - which mainly concerned telemarketing activities, involving inter alia issues such as the management of some Apps, the TIM Party program and some cases of data breach - the Guarantor ordered the definitive limitation of some treatments, imparted prescriptions and imposed a fine of 27,802,949 euros, equal to 0.2% of TIM SpA's 2018 turnover. On 13 February 2020, the Guarantor Authority shared the interpretations proposed by the Company, also accepting TIM's request for an extension of the terms. planned for the execution of some of the corrective measures. The Company therefore decided not to appeal the measure and proceeded to pay the fine reduced by 50%

For further information please refer to the "Contingent liabilities, other information, commitments and guarantees" Note of the Consolidated Financial Statements. [\[GRI 419-1\]](#) The same Note contains a description of all the Group's other disputes.

## Stakeholder engagement

TIM believes it is fundamentally important to consider the opinions and expectations of its stakeholders, that is to say the parties who for various reasons have an interest in or impact on the Company's activities, and vice versa.

[GRI 102-40] The stakeholders with whom TIM comes into contact in the conduct of its business are many and very varied. In 2019, for ease of management, they were grouped into seven macro-categories, thanks to a dual policy of benchmarking on comparable companies and internal consultation:



Notes in the table:

a: by Authority is meant independent authorities, for example of supervision and control such as the Italian Communication Authority or the Italian data protection authority, or, in Brazil, ANATEL (National Telecommunications Agency) and MCTIC (Ministry of Science, Technology, Innovation and Communication).

b: the "Companies of the TIM Group" have been considered as stakeholders and, more specifically, as "Customers" (e.g. TMS - Telecom San Marino) and "Suppliers" (e.g. Olivetti) both to facilitate the mapping process of the stakeholders who have a relation with TIM and to highlight possible feedback issued to determine materiality.

In the same year, for the functions in charge, TIM organized a training workshop on stakeholder engagement, on its importance for the definition of materiality issues and on the new methodology adopted in the company that makes use of a collaborative platform equipped with applications for sustainability and semantic analysis techniques and big data. Then, in order to identify the most relevant stakeholders for the company, the designated employees were asked (following the criteria of the AA1000SES standard) to insert on the platform the map of the relevant stakeholders, the list of events and the relevant relationships managed with the most important stakeholders; the issues raised during these events. On the same platform, in 2020 TIM intends to implement further stakeholder engagement and collaboration initiatives useful both to feed in "real time" the process of updating the materiality analysis with the results of the comparison carried out on it, and to make the involvement of stakeholders more continuous and solid, keeping the relationship channels open, and to co-design to create shared value.

[GRI 102-42] [GRI 102-43] The stakeholder engagement process takes place on a regular basis both during the course of the company's operations and in the implementation of specific projects.

On the basis of Company goals, business-related and not, relevant stakeholders are identified for every project, priority is assigned to them, and the most suitable strategies for building relations are studied, which can include individual meetings, group meetings, information sessions, shared projects, surveys, focus groups, etc.

The feedback that the various stakeholders provide to TIM is analysed to identify solutions the Company can offer to satisfy the specific requirements. At the end of the feasibility analysis and verification process, TIM decides which solutions to offer, which projects and which initiatives to undertake. Stakeholder involvement continues beyond this and serves to monitor and adjust the initiatives.

TIM has drawn up general guidelines for group stakeholder engagement and a set of policies associated with different kinds of stakeholders, including customer service charters, a policy on relations with suppliers in purchasing processes, the code of conduct for protecting the data of other local operators, guidelines for relations with local authorities and other organizations, guidelines for voluntary contributions to the Community.

## Customers

With a view to including customers, general satisfaction is measured (Customer Satisfaction Index), as are the conciliation procedures, as described in the "Value chain" section of this report.

## Shareholders

The Group is aware of the importance of providing accurate information on its activities to the financial market, investors and the community in general.

Subject to the need for confidentiality in the running of the business, communication with the financial market is carried out in a way that ensures transparency, fairness, clarity, promptness and equality of access to information, ensuring equality of treatment for all categories of shareholders, as required by the bylaws.

The external communication of information is governed by specific internal procedures, in line with the regulations in force.

The Company has set up dedicated channels of communication with shareholders, bondholders and stakeholders interested in receiving information about the financial and non-financial aspects of the Company.

The Investor Relations Department manages relations with the main stakeholders: institutional and retail investors (including small shareholders' associations), bondholders, socially responsible investors, equity and credit analysts.

Once again in 2019 the Company organized quarterly conference calls, road shows abroad, meetings with the institutional offices of the Group (reverse road show) and participation in sector conferences; these activities were accompanied by direct contacts and phone conversations managed by the Investor Relations team on a daily basis.

For a detailed focus on the activities carried out over the year and the topics of greatest interest that emerged, refer to the "Information for Investors" section of the TIM Group's 2019 Annual Financial Report and the dedicated area of the website [www.telecomitalia.com](http://www.telecomitalia.com).

The "TI Alw@ys ON" Shareholders' Club ([telecomitalia.com/individuali](http://telecomitalia.com/individuali)) was launched in 2006 as a virtual meeting place for the Company and its individual investors. Free access to the Club allows you to subscribe to and receive economic-financial information services (weekly stock market report, SMS alerts, etc.).

Financial communication, finally, focuses on the web as an important means of sharing information with the outside world: in this sense, the Investors channel on the website [telecomitalia.com](http://telecomitalia.com) is constantly updated with presentations of the quarterly financial results, intermediate and annual reports, notices and documentation useful for the Shareholders' Meeting and the financial calendar of the Company.

[GRI 102-43] [GRI 102-44] The Group's main stakeholder engagement initiatives taken in 2019 are summarized in the Appendix.

In the diagram, each initiative is marked by an icon that represents the type of relationship:

- "information" refers to one-way communications by the Company with stakeholders;
- "consultation" refers to the occasions when stakeholders are asked for their opinion through surveys or similar tools;
- "dialogues" refers to the discussions and ongoing and stable cooperation between the Group and stakeholders;
- "partnership" refers to the specific projects that are managed together.



In 2019, with the aim of knowing and analyzing the external vision with respect to the most relevant issues for its strategy, TIM invited a selection of its stakeholders to register in the area reserved for consultation on the RE2N collaborative platform. Specifically, this initiative is part of the new methodology adopted by TIM for materiality analysis (described in the dedicated paragraph in this chapter) that leverages the potential of digital, including through sustainability activities.

Each initiative mentioned in the table provided in the Appendix includes a reference to the relevant chapter and section of this report in which the initiative is discussed in detail.

## Materiality Matrix

[GRI 102-46] In 2019, in compliance with Legislative Decree 254/2016 and the requirements of the Global Reporting Initiative Standards, TIM conducted a materiality analysis with the aim of identifying the material topics as regards the socio-environmental and economic impacts of the business activities both within and outside the Company.

### Methodology

In keeping with the methodology started in 2017, TIM assessed the validity of the material issues identified the previous year, validating or revising categories and definitions to make them more specific, adopting evolved semantic analysis<sup>1</sup> techniques, to analyze a larger number of information sources and analyze big data and digital engagement, in order to collect external points of view.

The process followed is in compliance with the “Guidelines for updating the TIM materiality analysis”, updated in 2017 in line with the Global Reporting Initiative (GRI) standards and was created and managed in collaboration with RE2N<sup>2</sup>, a company that develops innovative tools for sustainability and shared value, using computational approaches to semantic and big data analysis.

The SRM&R function held one-to-one meetings with the company's frontlines during which, in addition to presenting the methodology and the path of materiality analysis starting from the 2018 matrix, it collected information and useful indications on the tree of the topics to be evaluated. At the same time the taxonomy<sup>3</sup> 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<sup>4</sup>;
- Italian Digital Agenda, Objectives of the European Digital Single Market and dedicated indexes<sup>5</sup>, besides regulatory references which are relevant for TIM and its stakeholders.

At the same time, the documents linked to the Group's core business were updated and integrated with new documentary sources for analysis, selecting Italian and international, public and non-public sources, internal and external to TIM<sup>6</sup>.

The semantic engine analyses all the sources of information with different interactions. This process led to the definition of a list of themes based on the occurrences<sup>7</sup> found in the various documents and the logical correlations between them.

<sup>1</sup>The techniques involve automatic text analyses designed to extract structural data which codify the semantic component of textual content. The algorithms of the semantic engine that analyses all the sources of information were trained with “sustainability” and “digital” components.

<sup>2</sup><https://www.re2n.com/welcome>. RE2N collaborated with the University of Bologna to develop the methodology.

<sup>3</sup> 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.

<sup>4</sup> For example RobecoSam (Dow Jones Sustainability Index), FTSE4good and Sustainalytics questionnaires.

<sup>5</sup> For example, the Digital Economy Society Index which monitors different aspects of the digitization level of the individual European countries.

<sup>6</sup> For example: The Italian government's “Piano nazionale italiano per l'Agenda 2030” (“Italian national plan for the 2030 Agenda”), the “Ernst & Young Megatrends report 2018”, the “Fair and Sustainable Well-Being in Italy 2018” (BES) report promoted by the National Council for Economy and Labour (CNEL) and the National Institute for Statistics (ISTAT).

<sup>7</sup> 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.

The more a theme, a concept, reoccurs in the analyses documents (and therefore the more it occurs), the more it can be considered “relevant” for the sector.

### Identification of relevant themes

At the end of the analysis, TIM was able to draw up a list of themes to be assessed to identify the priorities of the Company and those of external stakeholders: In particular, the activities carried out made it possible to name and describe in detail the issues identified in 2018, narrowing the list to those more specific to TIM and its stakeholders:

- correctness of corporate conduct;
- stakeholder engagement;
- integration of social, environmental and governance aspects into corporate strategies;
- managing the workforce;
- development of the company's human capital;
- managing the health and safety of workers
- fair management of customer relationship;
- safeguarding privacy and personal data protection and security;
- Investments in 5G and UBB infrastructure development, and in R&D;
- protect diversity and promote equal opportunities in the Company;
- stimulate the spread of e-technologies and e-skills;
- integration of social and environmental aspects within the supply chain;
- protection of vulnerable groups (cyberbullying, child pornography, gambling);
- promoting and safeguarding human rights;
- reducing energy consumption and fighting climate change;
- impacts of electromagnetic emissions
- fostering the development of an inclusive digital society.

### Attribution of relevance scores to the topics

The 17 issues that emerged from the analysis described above have been submitted for stakeholders' evaluation and to TIM's management, in order to define the degree of priority in the 2019 matrix.

The internal viewpoint was provided by Top Management which, thanks to the involvement of a significant sample of representative contact people from the company's main departments, expressed its opinion on the importance of each theme for TIM's strategy<sup>1</sup>.

Collecting external points of view was done with innovative tools such as semantic and big data analysis<sup>2</sup>, and on the collaborative platform on which RE2N set up an area for TIM to consult and involve its stakeholders<sup>3</sup>.

This approach has enabled TIM to:

- further extend listening to more stakeholders;
- make dynamic the observation of the themes in order to measure their evolution over time.

About 490 TIM stakeholders have been invited to the consultation and 98 have participated, representing institutions, suppliers, customers, the business community of the sector, civil society and the financial community. With regard to People, findings from the "Engagement 2019" survey, completed by over 30,000 employees, have been taken into

<sup>1</sup> Based on the following scale: 1=barely influential; 2=limited impact; 3=direct influence; 4=significant influence; 5=decisive.

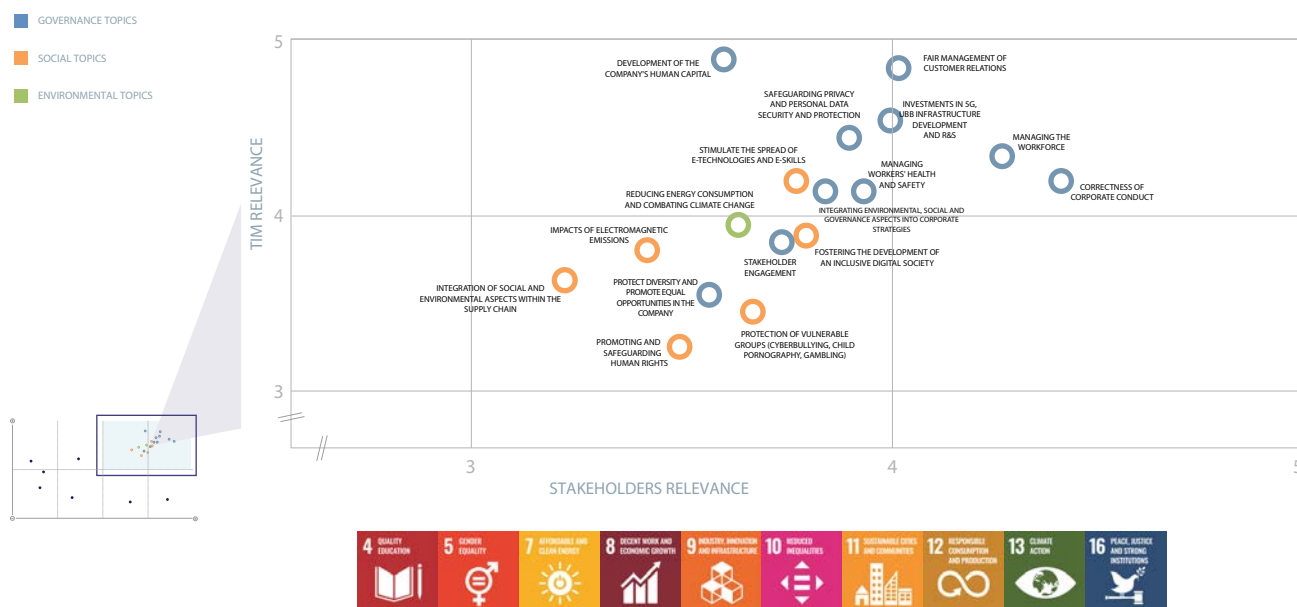
<sup>2</sup> In keeping with activities of the previous years, stakeholders involved in engagement activities were surveyed, in addition to many other entities, for a total of approximately 500, concerning 8 categories of TIM stakeholders. Three types of sources were identified for the analysis:

- 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.

<sup>3</sup> Ninety-seven people replied to the questionnaire, representing institutions, suppliers, customers, industry business community, civil society, financial community and people, providing their own assessment of the issues – using the same scale used by management for the internal one – as well as suggestions and feedback;

consideration. At the end of the analysis, TIM gave a score of relevance based on the occurrence of the issues<sup>1</sup> and the votes expressed by stakeholders during the survey, weighted on the basis of the mapping carried out in 2019 by consulting the company functions.

The following matrix of materiality is the result of such activities:



These themes, priorities for TIM and for their stakeholders, reflect the Sustainable Development Goals<sup>2</sup> to which the company believes it can contribute to a greater extent through its people, technologies and services, adopting business practices (policies) that promote and protect Human Rights and the environment.

Specifically, the relevant Objectives 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. 13: Fight against climate change:
- No. 16: Peace, justice and strong institutions

## Validation

The validation of the themes and of the entire materiality analysis process was carried out by the Sustainability Reporting, Monitoring and Relationship (SRMR) office of Administration & Financial Statements and Sustainability Reporting department, with the support of RE2N and TIM Data Room. TIM Data Room<sup>3</sup> is the department of TIM Group that analyses

<sup>1</sup> 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.

<sup>2</sup> [un.org/sustainabledevelopment/](https://un.org/sustainabledevelopment/) and [gsvis.it/agenda-2030/](https://gsvis.it/agenda-2030/)

<sup>3</sup> <https://www.linkedin.com/showcase/10989548/admin/>

digital data from the internet through listening, reporting and benchmarking. The governance of TIM's sustainability is explained in the Sustainability Governance paragraph of this document. The matrix was approved by the Control and Risk Committee on November 4, 2019.

## Review

The review phase is expected 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 the following year, to specific consultation and involvement activities as part of stakeholder engagement. As already reported, in 2017 the Group revised the "Guidelines for updating the TIM materiality analysis" so that they comply with the GRI Standards and are organized in a transparent manner for the analysis process.

## Boundaries

[\[GRI 102-47\]](#) All the themes that are judged to be material have major implications both inside and outside the Company and are cross-cutting topics that are relevant to all the consolidated companies in the Group, wherever these may be, without exception, and which are relevant to all external and internal stakeholders, these being. The material themes identified are:

- correctness of corporate conduct
- stakeholder engagement
- integration of social, environmental and governance aspects into corporate strategies
- integration of social and environmental aspects within the supply chain
- managing the workforce
- managing the health and safety of workers
- development of the company's human capital
- fair management of customer relations
- promoting and safeguarding human rights
- protect diversity and promote equal opportunities in the Company;
- reducing energy consumption and fighting climate change

Other topics mainly concern Group companies acting as operators in the ICT world, which represent the main part of the Group in terms of turnover, employees, including in terms of the impact on external stakeholders:

- stimulate the spread of e-technologies and e-skills;
- protection of vulnerable groups (cyberbullying, child pornography, gambling)
- safeguarding privacy and personal data protection and security
- Investments in 5G and UBB infrastructure development, and in R&D fostering the development of an inclusive digital society
- impacts of electromagnetic emissions

The topics mentioned above are more relevant to stakeholders who live in Italy, a country where TIM is the main operator and the Company on which stakeholders pin their greatest hopes.

[\[GRI 102-49\]](#). Finally, there have been no significant changes in the business perimeter (and therefore of boundary importance) in the last few years.

## Risk management

[\[GRI 102-15\]](#) [\[GRI 102-29\]](#) [\[GRI 102-30\]](#) [\[GRI 102-11\]](#) The Group has adopted an Enterprise Risk Management Model (hereinafter ERM) which allows risks to be identified, assessed and managed uniformly within Group companies, highlighting potential synergies between the parties involved in assessing the Internal Control System. The ERM process is designed to identify potential events that may influence the business activity, in order to manage risk within acceptable limits and provide a reasonable guarantee that business objectives will be achieved.

The process adopted is cyclical and includes the following stages:

- definition of the Risk Appetite and of the Risk Tolerances;
- Risk Assessment;
- Risk Response;
- drawing up the Reporting Flows.

The process is managed by the ERM Steering Committee, which is chaired and coordinated by the Head of the Security Department. The Steering Committee ensures the governance of the Group's risk management, aimed at guaranteeing the operational continuity of the business, monitoring the effectiveness of countermeasures taken.

For more details on the process and its phases, please refer: <http://www.telecomitalia.com/tit/en/sustainability.html>

The ERM process carried out at Group level has highlighted that commercial activities of the Domestic Business Unit show a different risk profile than those of TIM Participações in Brazil. For greater clarity, descriptions of the solutions adopted in each parameters have been reported separately. A summary of the risks connected with material themes is given in the table below, whilst a brief summary of the main types of risk identified by the ERM system is contained in the Main Risks and Uncertainties chapter of the Annual Report.

## Material themes

### CORRECTNESS OF CORPORATE CONDUCT

Risks	Management
Compliance risks in relation to the reference legislation (Legislative Decree 231/2001), current asymmetric and transparency regulation (Italian Communication Authority), legislation in force on competition and consumer protection (Italian Anti-trust Authority), management of conflict of interest and implementation of the provisions established by CONSOB regarding related-party transactions.	TIM adopts rules and governance policies to guarantee proper management, so it can protect its assets. It also makes sure its processes are consistent through its compliance departments, whose autonomy is ensured by the Board of Directors. The company implements the Borsa Italiana recommendations for listed companies in Italy and has implemented an internal risk control system structured on three levels, which integrates the corporate governance responsibilities of the corporate bodies. TIM also manages relations with the relevant authorities and consumer protection associations in order to optimist its offer on the basis of market expectations and in compliance with legislation. As part of Legislative Decree 231/2001 and anti-trust regulations, the company has also implemented a specific training plan for employees. Finally, the Company has equipped itself with a procedural system and a web-based portal for the prevention and management of conflict of interest situations, in order to eliminate negative impacts on the Company's interests and support and protect the people involved who are required to be transparent.
<i>In Brazil</i> Risks connected to corporate governance, integration of the strategy with corporate values and culture, management of transactions with related parties and identification of conflicts of interest.	TIM has a policies and standards that regulate internal processes, consistent with the principles set forth in the corporate Code of Ethics and Conduct. Pursuant to the TIM articles of association (article 29 (VII)), the Statutory Audit Committee is responsible for the revision, assessment and for expressing an opinion on any contract, in order to guarantee compliance with the requirements of free competition. In addition, matters related to conflicts of interest are managed and monitored through questionnaires on the conflict of interest related to the parties, through a channel updating information on conflict of interest reports and as part of the selection and recruitment process.

## STAKEHOLDER ENGAGEMENT

Risks	Management
<p>Risks related to general sustainability topics, partnership management (strategic, innovative technology, multimedia and entertainment), dispute management and dealing with related decisions (appeal, conciliation, etc.) and the protection of workers' rights, including the right to privacy.</p>	<p>TIM oversees relations with its stakeholders through various dedicated departments. These carry out various initiatives and projects to involve and consult stakeholders, to improve the company's environmental, social and governance performance, maximizing reputation and value. Sustainability reporting Monitoring &amp; Relationships oversees the various stakeholder engagement initiatives and monitors their outcomes. In particular, Chief Innovation and Partnership Office, in conjunction with Chief Strategy, Customer experience and Transformation Office, governs innovation and research activities to develop new services through the incubation of technologies, enhancing strategic partnerships and the ecosystem of start-ups. The company also oversees the management of the process of external and internal disputes, in accordance with the provisions of TIM's 231 Organizational Model (including the Code of Ethics and Conduct), as well as in compliance with the internal procedure governing the execution of transactions with related parties, and safeguarding workers' rights, including the right to privacy.</p>
<p><i>In Brazil</i></p> <p>Risks connected to purchasing and negotiating with suppliers, integration of the strategy with corporate values and culture, management of transactions with related parties and identification of conflicts of interest</p>	<p>To circulate its guiding principles, values and conduct expected, TIM Participações has introduced corporate standards, including its own Code of Ethics, the anti-corruption policy and the organizational model, in line with the sector's best practices and with principles declared in the Global Compact of the United Nations, which the Group formally adhered to in 2008.</p>

## INTEGRATION OF SOCIAL, ENVIRONMENTAL AND GOVERNANCE ASPECTS INTO CORPORATE STRATEGIES

Risks	Management
<p>Risks related to the failure to adopt ESG indicators for measuring company performance in relation to the objectives set in the company strategies.</p>	<p>TIM has internal policies and procedures that integrate sustainability issues into company processes; the Corporate Digital Communication &amp; CSV Projects department oversees the implementation of projects for generating shared value, in addition the Sustainable Reporting, Monitoring &amp; Relationship departments oversees the relevant legislation and monitors the progress of sustainability issues.</p>
<p>In <i>Brazil</i> the risk was not deemed significant.</p>	



## MANAGING THE WORKFORCE

Risks	Management
Risk related to the failure to implement/incorrect interpretation of legislation on workers' rights (safeguarding of workers' rights, including the right to privacy; safety in the workplace)	TIM is compliant with the obligations on workplace safety also through the definition and periodic updating of the Risk Assessment Document. It also guarantees the implementation of legislation on workers' rights defining appropriate application standards aimed at personnel management roles as well as regulations and specific provisions aimed at all personnel. The Performance Management process, regularly implemented at both management and operational staff level, defines systems for measuring performance at all levels, professional and managerial, providing fair and objective recognition of the individual merit of enabling the development processes and plans.
<b>In Brazil</b> Risks related to the management of the workforce and employees' rights, mainly in terms of health and safety regulations in the workplace.	TIM Participações adopts a policy that defines the principles applicable to all internal activities of the Company and aims at promoting continuous improvement of health and safety in the workplace. It also guarantees the observance of related laws and regulations and of the Group's guidelines, contributing to the prevention of accidents and occupational illnesses in companies of the TIM Group in Brazil.

## DEVELOPMENT OF THE COMPANY'S HUMAN CAPITAL

Risks	Management
Risks related to the adaptation of specialist skills needed to ensure business transformation with a focus on the development of 5G networks and associated innovative services	<p>TIM optimise's the mix of capabilities necessary to maintain a competitive advantage in mature markets and strengthen the positioning in those focused on digital and innovative services (e.g. IoT in the context of 5G). In order to achieve said objectives, skill assessments are structured for the mapping of existing skills and training courses, often available on a dedicated online e-learning platform and intended for multiple subjects according to personal development business needs. There are also initiatives for specific training and workshops held in person, according to the strategic need to develop company skill sets, especially digital skill sets.</p> <p>Of note in 2019, in Italy, is the signing of the expansion contract between the company and the social partners which, among other things, envisages the launch of a recruitment programme, seeking professional profiles compatible with the company's re-industrialization/reorganization plan and the implementation of a skills upgrading programme for all personnel, to support retraining, reskilling and upskilling, including key internalisation of core, advanced and traditional technical and specialist activities.</p>
<b>In Brazil</b> The risk was not deemed significant.	

## MANAGING THE HEALTH AND SAFETY OF WORKERS

Risks	Management
<p>Risk related to the failure to implement/incorrect interpretation of legislation on health &amp; safety at work and to implement the provisions of company policies in the "Safety" area.</p> <p><b>In Brazil</b></p> <p>The description of this risk and its related management have been considered within the theme "Management of the workforce"</p>	<p>TIM is compliant with the obligations on workplace safety also through the definition and periodic updating of the Risk Assessment Document. It also guarantees the implementation of legislation on workers' rights defining appropriate application standards aimed at personnel management roles as well as regulations and specific provisions aimed at all personnel.</p> <p>It uses criteria and instruments to identify and manage the different Safety operating problems, and a control system at different levels on protecting health and safety in the workplace and the environment performed by the Health, Safety &amp; Environment department as part of the Company Prevention and Protection Service.</p> <p>In order to further strengthen governance on Safety issues, during the year the company set up a specific steering committee with the responsibility of ensuring, in line with TIM's industrial plan, the definition of the strategic objectives of Health Safety &amp; Environment, the vertical action plans of the individual employer lines and the transversal actions, as well as the monitoring of the relative progress and finally ensuring the sharing of specific activities aimed at promoting the "Safety Culture" and good behavior in terms of health, safety and the environment.</p>

## FAIR MANAGEMENT OF CUSTOMER RELATIONS

Risks	Management
<p>Risks related to the improvement of Quality and Customer Experience</p>	<p>The Company has redefined and evolved the Quality and Customer Experience Improvement Programme ("TIM around the Customer" reference), in a "quality-by-design" logic. The "TIM around the Customer" project includes various initiatives based on transparency, simplicity and respect for the customer. In this field, improvement plans have been launched with targeted actions and various initiatives that, with the aim of transforming the culture, involve all employees in innovative ways: "make the difference", "idea sharing" and a story about customer experience (where employees are the actors). To drive this transformation TIM has developed an extensive listening system, which picks up on customer experience in the different "moments of truth" of the customer journey, for example: web browsing, purchasing a service, calling customer care, reporting a malfunction, posting on social media. Of the surveys conducted, the monitoring of the Customer Satisfaction Index (CSI), based on the ACSI standard (American Customer Satisfaction Index), is particularly significant. The aim is to collect information on the quality perceived by TIM customers and the main competitors.</p>

*In Brazil*

Risks related to the non-improvement of Quality and the Customer Experience

The TIM strategic three-year plan aims to speed up the digital transformation and improve the customer experience with a quality and value proposal based on three strategic pillars:

- Construction of offers based on the needs of customers
- Promote the expansion and evolution of network infrastructure
- Efficient management integrating sales and service channels

TIM Participações offers its customers several physical service or digital channels. When managing service and process improvements, the company considers customer feedback provided through these channels, conducts surveys and monitors systemic errors.

TIM Participações also takes part in the users' Council, an Anatel initiative that brings together operators, mobile segment users and the representatives of consumer protection bodies.

## SAFEGUARDING PRIVACY AND PERSONAL DATA PROTECTION

Risks	Management
<p>Risks related to the application of the current legislation on privacy and risks related to protection and security of personal data.</p>	<p>The TIM Group has a system of procedures and controls which ensure compliance with current regulations, puts in place concomitant monitoring activities on the evolution of the regulatory scenario and performs ongoing dissemination and internal training activities. With reference to the new privacy regulation GDPR No. 2016/679, the TIM Group, starting with the operating model already in place under current Privacy legislation, activated that necessary for compliance with GDPR, defining the Data Protection Officer organizational structure and processes. TIM also has an ICT Risk Management process which includes the cyber risk mapping and, also in keeping with the needs expressed by the control bodies, coordinates the identification of intervention areas on a priority basis in order to ensure the control and management of the overall cyber risk for the entire perimeter of TIM and its subsidiaries. The ICT Risk Management process contributes to the security of information by managing the process of assessing and handling the operational risks of ICT resources in order to ensure: a) a level of confidentiality, integrity and availability of the information proportional to the respective value of the business, that is, the direct or indirect losses that a security incident can result in for the services provided to its customers; b) The security of the services provided to its customers and the levels of operational continuity stipulated in the contracts; c) The security of the personal information of employees, in compliance with current legislation and for employees' protection.</p> <p>TIM Participações adopts the best practices in compliance with ISO 27001 guidelines, the standard for the information security management system (ISMS - Information Security Management System), though without certification. Since 2015, the Company has been part of the human rights work group of the Brazilian Global Compact network, and acknowledges that it has to protect rights like data privacy, secure Internet, access to information and freedom of expression.</p>

*In Brazil*

## INVESTMENTS IN 5G AND UBB INFRASTRUCTURE DEVELOPMENT AND IN R&S

Risks	Management
<p>Risks related to the engineering and implementation of the enabling infrastructures for innovative solutions, to the preparation and set-up of the fixed and mobile ultra-broadband (UBB) and 5G network infrastructures, necessary for the provision of the new services and to overcoming architectural limitations</p> <p><b>In Brazil</b></p> <p>Risks associated with the engineering and implementation of infrastructures for innovative solutions, the preparation and installation of network infrastructures in line with the Strategic Plan.</p>	<p>The TIM group has adopted a new integrated approach to "corporate innovation" through the cross-functional coordination of innovation processes and their end-to-end monitoring by the Chief Innovation &amp; Partnership Office. The technical departments of TIM supervise the company's technological processes in the general engineering and planning context for network/service infrastructures, those of new generation network development (FTTx - 5G) and evolution towards the cloud network, also considering the search for innovative services.</p> <p>At the same time, the Company's technological processes through an integrated digital transformation programme that includes the architectural and application simplification of IT systems and the network with the aim of:</p> <ul style="list-style-type: none"> <li>- updating the structure of IT systems and networks to adapt them to new technologies with the help of criteria aimed at minimizing the environmental impact based on the Group environmental policy;</li> <li>- dismantling obsolete systems and platforms, progressively reducing the associated energy consumption;</li> <li>- developing innovative ICT solutions and services that allow increased use of digital channels, allowing all stakeholders to interact more efficiently, minimizing the environmental impact.</li> </ul> <p>With regard to fiber expansion, FTTH (Fiber to the Home) coverage includes over a million families located in 11 cities - the number of registered addresses amounts to a total equivalent of 4.3 million persons during the year. On the topic of 5G, even if discussions are at a very early stage in Brazil, TIM believes that the next auction of 5G spectrum will keep the Brazilian market abreast with international developments while promoting innovation and the creation of knowledge. TIM's objective is to work with strategic partners to spread 5G technology in Brazil</p>

## PROTECT DIVERSITY AND PROMOTE EQUAL OPPORTUNITIES IN THE COMPANY

Risks	Management
<p>Risks related to the management of compliance with legislation on workers' rights</p>	<p>The company has a skills model for staff focused on addressing the transformation related to the new external and business scenarios and structured in four areas: Execution, Proactivity, Speed, Systemic Vision. In 2018, an additional skill was introduced, across the 4 areas and for all roles: "Diversity and inclusion". The aim of this is to stimulate integration and enhance diversity throughout the company population, placing particular importance on gender equality.</p> <p>The business results on inclusion management are measured by the growth of TIM people's performance in the "Diversity and Inclusion" area.</p>

<p><i>In Brazil</i></p> <p>Risks related to integration of the company values and culture strategy, and to sustainability and social responsibility.</p>	<p>In July 2018, TIM Participações created a multi-disciplinary committee on diversity (Elo Diversidade) to make sure that diversity initiatives are increasingly more effective. The group mission is to propose new ideas, improve accessibility, build a welcoming environment and develop new sources of talent.</p>
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## STIMULATE THE SPREAD OF E-TECHNOLOGIES AND E-SKILLS

Risks	Management
<p>Risks related to the integration of sustainability issues within the strategic business vision and with carrying out activities not in line with Corporate Social Responsibility.</p>	<p>TIM has internal policies and procedures that integrate sustainability issues into company processes; the Corporate Digital Communication &amp; CSV Projects department oversees the implementation of projects dedicated to the generation of shared value. In addition, Sustainable Reporting, Monitoring &amp; Relationship oversees the relevant legislation and monitors the progress of sustainability issues.</p> <p>The digital education project for Italy "Operazione Risorgimento Digitale" by TIM, launched during the year with the aim of boosting the country's digitization process, promoting the adoption of new technologies by an increasingly large pool of citizens (about 1 million) through training courses in over 107 Italian provinces, should be highlighted. Moreover, through TIM WCAP, TIM's open innovation hub, the company oversees the theme of Italian digital transformation, selecting ideas, projects, products and services by identifying startups and SMEs with innovative digital solutions with the aim of integrating the best in TIM's offer and technology.</p>
<p><i>In Brazil</i></p> <p>Risk related to the lack of integration of the company's sustainable development strategy, company management generating problems relating to the social, ethical and environmental impacts of company activities.</p>	<p>In Brazil, TIM adopts an innovation policy, Educação Conectada, that is integrated with other public policies and with the objectives of Brazil's national education program (PNE). A key purpose of the plan is secondary education for which, by the end of 2024, the federal government has set its target to have 85% of the high school adolescents enrolled in secondary school.</p> <p>In 2019, the TIM Institute continued supporting projects consistent with its mission to create and strengthen resources and strategies for the democratization of science, technology and innovation to promote human development in Brazil, with mobile technology as the primary activator.</p>

## INTEGRATION OF SOCIAL AND ENVIRONMENTAL ASPECTS WITHIN THE SUPPLY CHAIN

Risks	Management
<p>Risks related to the selection and qualification of suppliers/partners and products and to the management of passive contracts (agreement, archiving and monitoring).</p>	<p>TIM, in the supplier qualification phase, in accordance with the Anti-Corruption Policy, provides for the adoption of due diligence questionnaires and the application of the conflict of interest procedure. In addition, in accordance with the Group's environmental policy, which provides general guidelines for responsible and sustainable protection of the environment, the company also selects its suppliers and partners and purchased or outsourced products on the basis of environmental sustainability criteria and assesses products and services taking into account their whole life cycle, periodically checking compliance with the above criteria along the entire life cycle. The company identifies and assesses environmental risks generally present at the various levels of its supply chain and, in close collaboration with its direct suppliers and also through partnerships at national and international level, adopts appropriate corrective actions and improvement plans to reduce the environmental impact of purchased products and services and their production processes. Periodic spot checks are also made on Risk linked to the selection and purchase orders to ascertain whether there are purchases of goods for resale and production that do not comply with the provisions of the conflict minerals regulation.</p> <p>Finally, Ethics and Social Sustainability checks are carried out in order to assess both suppliers' adherence to schemes and principles of ethical business conduct and the adoption of procedures to ensure the health, safety and rights of workers, compared with the principles underlying the Global Compact and using international parameters referring to the SA 8000 and ISO 14001 standards.</p>
<p><b>In Brazil</b></p> <p>Risks associated with the selection and qualification of suppliers</p>	<p>All contracts and purchase orders include provisions for suppliers to observe the Group's Code of Ethics and the Global Compact's principles, such as respect for labor and human rights, environmental protection, the anti-corruption fight, and child and forced labor. These commitments are also included in the declarations that all suppliers sign as part of the onboarding process. Key suppliers are evaluated on aspects such as ethics, child and forced labor, health and safety in the workplace, freedom of association and rights to collective bargaining, discrimination, harassment, diversity and management of the environmental impact.</p>



## PROTECTION OF VULNERABLE GROUPS (CYBERBULLYING, CHILD PORNOGRAPHY, GAMBLING)

Risks	Management
<p>Risks associated with the management of activities in the field of logic security (cyber security, information/security system protection), penalties from regulatory non-compliance and risks to reputation and compliance with relevant regulations (Legislative Decree 231/2001)</p> <p style="text-align: right;"><i>In Brazil</i></p> <p>The risk was not deemed significant.</p>	<p>The TIM Group – in accordance with current regulations – provides the customer with a series of tools to protect minors from accessing the sensitive content provided, providing constant updating and related communication. TIM deploys resources, technologies, processes and tools to prevent and tackle “abuse”, i.e. any activity committed in violation of the rules of conduct and the legislation that govern the use of network services, digital systems or means of communication in general with continuous supervision carried out by the Security Operations Center in collaboration with the involved internal departments and with the competent external authorities.</p>

## PROMOTING AND SAFEGUARDING HUMAN RIGHTS

Risks	Management
<p>Risks of compliance with the relevant legislation (Legislative decree 231/2001)</p> <p style="text-align: right;"><i>In Brazil</i></p> <p>Risk related to determining corporate values and culture not consistent with the strategic plan.</p>	<p>The Group makes grievance mechanisms available to internal and external stakeholders, to be used in case of violations, as expressly required by the Guiding Principles on Business and Human Rights. These mechanisms are available on the Group’s websites. Reports may also be sent anonymously.</p> <p>TIM Participações is a member of the Global Compact Network Brazil's Human Rights Working group since 2015.</p> <p>As part of the due diligence process, it uses the Diagnostics questionnaire on human rights capabilities (HRCDD) developed by the German Global Compact Network to assess the level of human rights commitment and management in the pertinent departments.</p>

## REDUCING ENERGY CONSUMPTION AND FIGHTING CLIMATE CHANGE

Risks	Management
<p>Risks associated with the environmental impact of its activity and the management of energy efficiency projects and monitoring of energy consumption</p>	<p>TIM, recognizing the importance of identifying and evaluating all the impacts, positive and negative, even potential, that its activities and the products and services made available to its customers may have on the environment, implements a process of continuous improvement through initiatives and projects aimed at minimizing the environmental footprint of the company's activities, customers and stakeholders in general.</p> <p>In terms of energy, TIM is constantly committed to improving its performance energy efficiency, adopting purchasing policies that take account of environmental issues and proposing innovative technological solutions to individuals, companies and government for lowering environmental impact. In this context TIM has equipped itself with an Energy Management System developed, implemented and controlled with reference to the ISO 50001 Standard. Every year the company sets itself the objective of reducing emissions and energy consumption, despite the continuous development of new-generation networks, while at the same time increasing the use of energy from renewable sources in company processes. Finally, TIM's strategy for the environment in the energy sector involves management lines that optimist use of energy sources and natural resources.</p>
<p><i>In Brazil</i></p> <p>Risks associated with failures and/or inefficiencies in using and managing energy with resulting problems in the supply of services and in the environmental impact due to the low efficiency of consumption.</p>	<p>TIM Participações has invested in renewable energy sources through distributed generation projects, including five hydroelectric plants in the state of Minas Gerais, and purchasing electricity on the free market.</p> <p>The energy efficiency initiatives implemented in 2018 include: the temporary or permanent stop of inactive equipment; freecooling, a heat exchange system to reduce use of energy and refrigerant gases in air conditioning equipment; the stop or removal of equipment from a site to save energy and free space for new projects.</p> <p>Water consumption is also managed for greater efficiency; for example in Rio de Janeiro (RJ), in the district of São Cristóvão, where TIM is developing a water reuse project.</p> <p>In addition, the environmental policy of TIM establishes principles to reduce the quantity of waste produced to a minimum and boost the separation, recover and recycling of the waste itself.</p>

## IMPACTS OF ELECTROMAGNETIC EMISSIONS

Risks	Management
<p>Risks related to compliance with health and safety regulations and risks to engineering and implementation of enabling infrastructures for innovative solutions and preparing and setting up ultra-broadband and 5G network infrastructures</p> <p><i>In Brazil</i></p> <p>Risk related to the lack of integration of the company's sustainable development strategy, company management generating problems relating to the social, ethical and environmental impacts of company activities. company emissions management, etc.) and non-compliance with workplace safety legislation.</p>	<p>The issue of the impact of electromagnetic emissions, given their significant and growing importance in the light of the recent start-up of the 5G networks, is managed by the TIM Group within the scope of risks related to compliance with current health and safety regulations and to engineering and implementation of the enabling infrastructures for innovative solutions and preparing and setting up ultra-broadband and 5G network infrastructures.</p> <p>The TIM Group oversees every aspect of electromagnetic emissions by:</p> <ul style="list-style-type: none"> <li>- designing and optimizing the radio access network, ensuring that serious attention is given to the issue of electromagnetic emissions at every stage of the equipment life cycle;</li> <li>- carefully managing the plants throughout their entire life cycle with systematic monitoring of electromagnetic emissions levels and in compliance with current legislation and internal efficiency and safety standards for the population and workers;</li> <li>- use of, and constant research into, the latest technological instruments for checks and controls;</li> <li>- continuously keeping an eye on legislation by proactively monitoring possible developments and always acting in compliance with legislation.</li> </ul> <p>Electromagnetic emissions from radio base stations (RBS) shall be assessed and monitored using methods established by ANATEL resolutions and kept within established limits. In 2018, electromagnetic emission levels were measured at 23.6% of sites.</p> <p>Given its national coverage, TIM Participações has RBSs within 147 protected areas, often on hills or in conservation units, which are periodically monitored to ensure that the company's operations do not negatively impact upon biodiversity. At the end of 2018, TIM had over 800 active biosites within the network. Biosites are structures that significantly reduce visual and landscape impact. In addition to telecommunications transmission equipment, biosites also cover street lighting and security cameras.</p>

## FOSTERING THE DEVELOPMENT OF AN INCLUSIVE DIGITAL SOCIETY

Risks	Management
<p>Risks related to the integration of sustainability issues within the strategic business vision and with carrying out activities not in line with Corporate Social Responsibility.</p> <p><i>In Brazil</i></p> <p>Risk related to the lack of integration of the company's sustainable development strategy, company management generating problems relating to the social, ethical and environmental impacts of company activities.</p>	<p>TIM pays particular attention to the issues of inclusivity and valuing diversity, for their positive impact on the ability to generate innovation and improve performance, increasing people's productivity and the quality of their working life. TIM has been engaged in inclusivity since 2009 and was one of the first Italian companies to set up an Equity &amp; Inclusion Management program. TIM is the first Italian company and first telco provider in the world in the Thomson Reuters Diversity &amp; Inclusion Index, reaching sixth place worldwide in 2018 and 2019.</p> <p>TIM also works on social digital inclusion, especially in terms of economic benefits and specific measures for certain categories of customers, such as deaf, blind or visually impaired customers, customers with low income who are in a situation of "economic hardship" and "social card" holders. In addition, TIM guarantees to support customers residing in areas affected by natural disasters (seismic events, floods), both in the phase of emergency management and in the medium/long term, to protect their needs.</p> <p>TIM Participações supports an economically sustainable telecommunications policy that enables us to provide society with digital inclusion in a competitive environment. We achieve this with policy documents addressed to national policymakers and contributions to public consultations promoted by government authorities.</p> <p>The Educação Conectada innovation policy in Brazil is integrated with other public policies and the goals of the country's National Education Plan (NEP). TIM acts through the TIM Institute, encouraging and providing education to state school students in science and mathematics that reflects the current state of knowledge in these fields.</p>

**Environment**

## Environmental protection approach

[GRI 103-1, 103-3: Management Approach] [GRI 302] [GRI 305] The 2018 GeSI-Deloitte report *Digital with Purpose: Delivering a SMARTer 2030* clearly shows how 103 of the 169 United Nations Sustainable Development Targets (SDGs) are directly influenced by digital technologies. The ICT sector can contain its CO<sub>2</sub> emissions while contributing to the reduction of emissions from other sectors and citizens thanks to the nature of its characteristic solutions: videoconferencing, smart working, telemedicine, social sharing platforms and all the related services that can support more sustainable behaviors and lifestyles through digitization. It has been calculated<sup>1</sup> that the full adoption of these services would lead to a reduction of global CO<sub>2</sub> emissions by 1.34 Gt in 2030, offsetting the expected 189% growth in ICT emissions (2019-2030). The TIM Group is therefore aware of its leading role in building a low carbon emissions future and is part of, and active in, industry associations and non-profit organizations which have environmental protection among their objectives<sup>2</sup>; the importance to TIM of environmental issues is also shown by the materiality matrix 2019, which incorporates the Sustainable Development Goals and translates into specific areas of intervention for TIM's strategy for the environment, as described and disseminated through the Group's Environmental Policy<sup>3</sup>:

- definition of guidelines and management approaches for optimized use of energy sources and other natural resources;
- gradually reducing its own direct and indirect emissions of greenhouse gases;
- selecting suppliers, partners, products and services based on environmental sustainability criteria as well;
- applying environmental sustainability criteria when assessing possible mergers and acquisitions;
- development of solutions and products that contribute to the fight against climate change;
- dissemination among employees and stakeholders of a correct and effective approach to environmental issues and allocation of human, technological and economic resources for actions to protect the environment;
- recommending variable remuneration for achieving objectives with a positive environmental impact.

Consistent with this strategic approach, the Group implements concrete actions each year, which are further detailed in the following paragraphs.

In order to increase awareness of environmental protection, a training plan was introduced for internal staff and business partners with 9,713 total hours of training. In June, as part of the *Save Energy!* project TIM launched a campaign to raise awareness about what to do to avoid wasting energy and natural resources. The targets of the campaign were 45,000 employees who spend most of the day in offices throughout the country. The initiative has been allocated a highly visible space on the home page of the company intranet, where the Green Decalogue was published, with ten tips for the intelligent use of energy and for saving paper and water. Simple rules conveyed in a cartoonish but effective way, urging each employee to help to consume less, with positive effects on the environment. The driving force behind the initiative is the conviction that saving energy is a "responsible" practice that has no limits, except in the sensitivity, ethics and intelligence of each person, and that it can be achieved by starting from correct and widespread information on possible consumption and behavioral choices, in the knowledge that daily activities (from the use of machinery and accessories powered by electricity, to the consumption of water in common areas, to the cooling/heating of rooms) inevitably impact on TIM's second expense item but above all on the environment.

To ensure the sustainable management of operational processes, the areas of TIM which have a potentially significant environmental impact have an ISO 14001-certified Environmental Management System (EMS). In some organizations, the Environmental Management System has been integrated with the Quality Management System based on the ISO 9001 standard, for which the respective certification has been obtained. At some particularly representative sites, a certified Energy Management System has been developed. In continuity with previous years, TIM, through the Energy & Utilities Management department, was also awarded the ISO 50001 certification for the sites where this system has been implemented. The certification includes the "historic" site in Bologna, in via Stendhal, and the Data Center in Rozzano 1, &2 and Rozzano 3, the Piacenza Centro exchange, as well as the Data Processing Centers at Padova and Bologna Roveri. TIM therefore has a telephone exchange included in the certification scope, on top of the already certified buildings. The

<sup>1</sup> Global e-Sustainability Initiative – Digital with Purpose: Delivering a SMARTer2030.

<sup>2</sup> European Telecommunications Network Operators' Association (ETNO), European Telecommunications Standards Institute (ETSI), Global e-Sustainability Initiative (GeSI), International Telecommunication Union (ITU).

<sup>3</sup> *Commitment to environmental sustainability in the TIM Group*, December 2018

<https://www.telecomitalia.com/content/dam/telecomitalia/documents/Sostenibilita/it/Politiche/TIM-Policy-Ambientale-dic2018DEF.pdf>



operational activities of the technical network in **Brazil** in the States of Rio de Janeiro, São Paulo and Espírito Santo – the areas in which the country's industrial and commercial activities are mostly concentrated – have had ISO 14001 certification since 2010. TIM Participações' activities are also carried out in accordance with its own environmental policy, revised in 2018, which underlines its commitment to reducing waste and using natural resources sustainably.

[\[GRI 103-2: Management Approach\]](#) [\[GRI 302\]](#) [\[GRI 305\]](#) The Company always undertakes to implement energy efficiency programs and a rational use of resources: the Energy Management Procurement function operates within the Procurement department, focusing on energy issues with the mandate to identify and finalize appropriate energy efficiency measures in Italy. In addition, together and in coordination with the competent units of the Chief Technology Office, it ensures that the planning and implementation of the adopted solutions is consistent with the Company's efficiency plans. The short-term variable remuneration policy (MBO) provides that department heads are assigned objectives in line with the Group's business plan and focused on environmental protection issues and the rational use of resources. In recognition of its efforts on the energy front, in 2019 TIM was given "Italy in Class A" certification for its projects<sup>1</sup>. This initiative was promoted by MiSE (Italian Ministry of Economic Development) and carried out by ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development) to show companies and individuals how to use energy more consciously and sensibly.

In **Brazil**, energy is a material topic given the continued network expansion. TIM Participações has a centralised management area for all electricity, which reports to the Business Support Officer. The Energy and Efficiency area includes professionals responsible for controlling and planning electricity consumption, monitoring energy efficiency projects and monitoring the development of regulatory and energy procurement issues. In Brazil, since 2018 TIM has entered into agreements (Power Purchase Agreements) with specialised companies that implement hydroelectric power plants connected to the distribution grid. TIM Participações leases the power plants on 15-year contracts with the consequent supply of renewable energy. In 2019, over 350 GWh consumed came from renewable energy sources, around 50% of consumption. The forecast for 2020 is for an increase in the share of renewable sources to 60% of total consumption for TIM Participações.

[\[GRI 103-3: Management Approach\]](#) [\[GRI 302\]](#) [\[GRI 305\]](#) The performance of the main Group indicators is shown in the table below. For details, see *2019 Results. 2020 and multi-annual targets* at the end of this Chapter.

Indicators	Final figures 2019
Total consumption of electricity procured and produced	☺ Down
Total consumption of electricity from renewable sources	☺ Up
Total CO <sub>2</sub> emissions	☺ Down
Eco-efficiency indicator	☺ Up
% of waste recycled	☺ Constant

## Fight against climate change: risks and opportunities for TIM

[\[GRI 201-2\]](#) Digitization and dematerialization to achieve energy saving and reduction of CO<sub>2</sub> emissions into the atmosphere: TIM solutions and products offer a real opportunity to mitigate climate change. In particular:

- the audio/video conferencing services and flexible working reduce the need for people to travel;
- online invoicing and payments save paper and production and transport energy and reduce the need to travel to make payments;
- the services of telemedicine reduce travel for medical appointments;

<sup>1</sup> The certification was obtained in November 2019 by TIM's "Save Energy!" project in its two declinations Green Decalogue Campaign and Green World green field contest.

- the infomobility solutions allow traffic flows and travel times to be optimized and therefore lower greenhouse gas emissions;
- systems for the monitoring and analysis of consumption allow the optimization of the energy efficiency of offices and households.

In all cases, there are services that in addition to optimizing production processes and logistics flows in various sectors, help customers reduce emissions generated by physical travel. TIM products and solutions are characterized by their reduced energy consumption and their contribution to reducing energy consumption. The efficiency improvements, savings achievable in economic terms and reduced environmental impact associated with the effective use of TIM services are also a real business opportunity for the Company: awareness is growing among stakeholders and citizens in general on issues related to climate change leading to companies turning their attention to ways of achieving significant reductions in greenhouse gas emissions to ensure a sustainable future for society and the planet. These objectives are pursued through the initiatives described in the following paragraphs.

The objectives that guide TIM's work in fighting climate change, can be summarized as follows:

- actions to reduce its direct and indirect greenhouse gas emissions and limit the emissions of other sectors and customers in general by supporting dematerialization and the provision of services and solutions which promote new sustainable ways of working, learning, traveling and living;
- communicating its emissions and strategies for fighting climate change in the Sustainability Report and through responses provided to rating agencies (RobecoSAM, VigeoEiris, Oekom, FTSE4Good, etc.). TIM participates in the CDP<sup>1</sup> survey both in Italy and Brazil. In Brazil, for the twelfth consecutive year, it was confirmed on the São Paulo Stock Exchange (B3) Corporate Sustainability Index (ISE) and has participated in the national EPC-Empresas pelo Clima programme since 2010.
- disseminating a culture which supports the individual in contributing to the reduction of emissions.

The risks associated with climate change for the TLC sector have implications of a physical, economic and regulatory nature, with repercussions for the image and reputation of Group companies.

The risk of flooding is one of the most serious physical risks for TIM and the one most likely to occur. The resulting damage impact ranges from reduced use to the loss of business infrastructure, with a consequent zeroing of the capacity to supply the service. In order to prevent the potential damage, TIM's new exchanges and buildings are built at a safe distance from rivers and bodies of water in general and, in order to ensure continuity of service, the TIM network is designed considering appropriate levels of resilience and redundancy. TIM's network infrastructure in areas characterized by a high level of hydro-geological risk is monitored through the TIM Ci.Pro. (Civil Protection) system, which uses a constantly updated database of information on local areas and infrastructure for rapid planning of necessary intervention. Company assets subject to physical risks have insurance coverage commensurate with the property and equipment value, and the severity of the potential damage related to the service they provide.

In **Brazil**, 66.6% of domestic electricity comes from hydroelectric generation<sup>2</sup>. For this reason, extreme rainfall levels or long periods without rain can compromise the water level in reservoirs and have an impact on the national energy supply. In this event, TIM could be affected by energy rationing measures and fluctuations in the average kWh price due to climate change effects. In addition, increased extreme weather frequency and strength could damage transmission towers, increasing business expenses for the acquisition of new equipment and maintenance of existing equipment. This could also lead to an increase in insurance costs and signal interruption or loss of quality to the detriment of telecommunications services. In addition, changes in air humidity and salinity have a direct effect on goods and equipment located underground and close to coastal areas with a consequent increase in operating costs. In the event of an average temperature increase, electronic devices whose performance is directly related to stable temperatures could require surplus energy to be cooled. It should be noted that climate change could also increase costs for staff absences, as well as cause greater difficulties in reaching workplaces or locations where staff are working, having an indirect impact on company performance.

<sup>1</sup>[www.cdp.net](http://www.cdp.net)

<sup>2</sup>According to the National Energy Report for Brazil 2019 (BEN, 2019).

## Electromagnetism and compliance with environmental legislation in force

The Group has always paid great attention to the issue of electromagnetic emissions. To this end its activities include:

- careful management of its equipment during its entire life cycle and in compliance with current regulations and internal standards of efficiency and safety;
- designing and optimizing the radio access network, ensuring that serious attention is given to the issue of electromagnetic emissions at every stage of the equipment life cycle;
- use of, and constant research into, the latest technological instruments for checks and controls.

Systematic monitoring of the levels of electromagnetic emissions in installations aims to ensure that legal limits are respected and high safety standards are maintained for workers and the general population. Despite Italian regulations on electromagnetic emissions being among the strictest in the world, with levels set much lower than the European average, checks carried out in Italy have shown that electromagnetic emissions generated are within the legal limits.

TIM invests in software development to continuously update and refine electromagnetic emission predictions. In particular, the GUARDIAN tool calculates the level of exposure of sites that host antennas and ensures that the levels established by law are respected. Combined with the TIMplan design platform, its use allows the location of sites and orientation of the antennas in relation to a specific context (housing, roads, meeting places) to be optimised. TIM also participates actively in the committees and working groups of the CEI (Italian Electrotechnical Committee) for issuing guidelines and technical standards on methods used to measure and forecast levels of exposure to electromagnetic fields issued by mobile radio systems. Accurate planning and optimization of the mobile radio network (optimum choice of sites, optimum use of radio transmission parameters) improves the efficiency of the network for the same amount of coverage, maximizing the capacity and quality of the service and minimizing interference, thus contributing to reducing the power transmitted by mobile terminals and radio base stations. Again in 2019, the following activities went on continuously:

- support and training for local organizations in Electromagnetic Impact Analysis (EIA) activities;
- evolution of software tools developed internally to predict exposure (GUARDIAN);
- development and maintenance of the ARPIE web application for monitoring and assessing the average power transmitted by radio base stations of 2G, 3G and 4G systems in accordance with the legal changes introduced by Italian Legislative Decree 179/2012 “Additional urgent measures for the growth of the Country” and its Implementation Guidelines;
- Preparation of guidelines for local 5G access network design, with the implementing the methodologies set out in the international and national regulatory framework;
- Participation in joint TIM-ARPA (Regional Agencies for Environmental Protection) regional meetings for implementation of 5G network design methodologies.

In addition, the introduction of Active Antenna Systems for the 5G system, which allow for generating irradiation diagrams on a “user basis” and no longer only on a “cell basis”, required a review of the regulatory aspects related to the topic of electromagnetic field exposure. For this reason TIM has been involved and has contributed to the past and ongoing activities of the international (IEC, NGMN, 3GPP) and Italian (CEI, ISPRA-SNIPA) regulatory bodies in this field. The APOGEO procedure has been applied to mobile radio systems allowing TIM to ensure that its systems are built in full compliance with the design, which in turn is fully compliant with legal requirements for protecting the health of the population. APOGEO is an innovative methodology patented by Telecom Italia in 2003 at the European Patent Office, which uses for high precision topographic and satellite instruments for 3D surveying of all radiating GSM, UMTS, LTE and Radio link systems and their infrastructure. In relation to the development of the 5G system it is important to remember that the current limits, provided by law with a wide margin of safety, are not related to specific technologies, but concern the total emissions; in addition the network architecture also provides “small cell” solutions which due to their intrinsic technological nature use lower radio power. In light of these considerations, the electromagnetic emissions generated by 5G technology do not represent a business risk. According to current scientific knowledge, emissions associated with base stations and wireless networks levels associated with radio base stations and wireless networks are not considered responsible for causing negative impacts on health and the population and fall well within the limits set by international

standards. TIM and the entire telecommunications sector pay careful attention to the issue by proactively monitoring all possible developments and always acting in compliance with the legislation.

In **Brazil** the non-ionizing radiation emitted by the radio base stations of TIM Participações are fully within the parameters dictated by the World Health Organization and adopted by the Agência Nacional de Telecomunicações (ANATEL). All the radio base stations of TIM Participações have a license to operate issued by ANATEL.

[GRI 307-1] On the issue of Compliance, the Group provides everyone with a single channel through which to submit requests for clarification or reports of presumed violation of environmental legislation, with the maximum guarantee of confidentiality. The system assigns each report submitted a unique identification code, which enables the reporter to check the processing status in complete anonymity<sup>1</sup>.

As active and responsible members of the community, the Group's companies are committed to observing and ensuring the observance of the laws in force in the countries in which they operate and adopt the organizational tools needed to prevent the violation of legal provisions.

During 2019, no significant financial penalties were imposed on TIM in Italy for violations of environmental legislation in the areas in which they perform their activities. This was also the case in the previous two years.

In **Brazil** during 2019 the Secretaria Municipal de Ambiente e Sustentabilidade - SEMAS fined TIM 50 thousand reais<sup>2</sup> for not having the equipment installation licenses.

## TIM initiatives for the environment

The concrete actions implemented by TIM in order to limit the impact of the company's activities on the environment are outlined below.

### Energy efficiency improvement work

TIM is intensifying its activities in the field of energy efficiency, implementing a series of major energy efficiency measures that have led to savings of 128 GWh over the last three years (this is the cumulative value for the period).

In addition, the Group's monitoring platform was expanded over the course of 2019, in order to target management interventions on all building types in a more effective manner. Sensors have been installed on 51 of the locations that use the most energy, monitoring around 100 GWh. There are plans to extend monitoring to another 300 sites in 2020 (including all Data Centers, all POPs, all ISO 50001-certified sites, and all sites targeted by 2020 energy efficiency projects), thus increasing the figure to 300 GWh. The target for 2020 is to monitor at least 50% of total consumption.

During 2019, TIM identified the most suitable levers for exploiting the energy potential of the company.

### Renewable energy

An increase in the quantity of energy derived from renewable sources, both through the purchase of Guarantees of Origin (covering around 21.4% of the total energy purchased in Italy) and through the construction of new photovoltaic plants, with an installed power of around 10 MWp, and with expected energy production levels of 3 GWh in 2020 and around 13 GWh/year at full capacity. In the field of distributed generation, TIM plans significant development of renewable source plants in the course of 2020, and will also launch testing of new sources for self-production at high-consumption sites. For every 10 GWh of solar energy produced, a saving of 1M€ is estimated. Specifically, the plans include:

- the installation of a photovoltaic system at the Acilia site during 2020 (baseline consumption: 8 GWh); the project is currently under development;
- the construction of photovoltaic systems in 100 locations (number to be confirmed following detailed checks at local level) in the area of exchanges/data centers (baseline consumption: 100 GWh/y).

<sup>1</sup>Full information about this is available by clicking on this link: <https://www.telecomitalia.com/tit/it/about-us/governance-system/Whistleblowing.html>

<sup>2</sup> Pecuniary sanctions of an amount exceeding 500,000 euros are considered significant for the Group in Italy; For its own accounting purposes, Brazil applies an amount of 500,000 reais, which is equal to 110,725 euros at the exchange rate on December 31, 2019.

## Energy efficiency measures at industrial and/or mixed-use sites

The initiatives launched in 2018 for industrial sites, offices and data centers have been completed. The details are as follows:

### Fixed Network area

- Exchanges re-engineering project. Phase 2 of the project was completed, with energy efficiency measures introduced at 35 sites (baseline consumption: 34 GWh/y) with an expected saving of 10%, which equates to an estimated saving of approximately 3.4 GWh when fully operational (2020). There are plans to roll out this project to a further 40 locations in 2020 (baseline consumption: 40 GWh), with the application of machine learning algorithms;
- Introduction of energy efficiency measures in power stations. Work has been completed at 13 sites (baseline consumption: 6 GWh/y), with an expected saving of 10%, which equates to 0.6 GWh (2020). There are plans to roll out this project at a further 40 locations in 2020 (baseline consumption: 30 GWh), with an expected saving of 10%, which equates to 3 GWh (fully operational in 2021).

### Offices

- The Building Energy Management System project (BEMS). The assessment process has been launched for the introduction of energy efficiency measures at 6 office sites (baseline consumption: 20 GWh), with an expected saving of 11%, which equates to 2 GWh (2020). There are plans to roll out this project at a further 6 locations in 2020 (baseline consumption: 60 GWh), with an expected saving of 12%, which equates to 7.2 GWh/y (2021) when fully operational. Machine learning algorithms will also be applied.

### IT

- Introduction of energy efficiency measures in the Oriolo Romano data center in Rome. The activities designed to improve the energy efficiency of the data center are nearing completion, thanks to a plant checking process that includes adaptive systems (machine learning); these measures will achieve a saving of 22% of the baseline consumption expected for 2020, which equates to around 7 GWh. A similar project will be rolled out at the Cesano Maderno data center in 2020 (baseline consumption: 23 GWh), with an expected saving of 12% (2.7 GWh, fully operational in 2021)
- The Data Center Transformation project - The Data Center Transformation project has been launched, which involves a process of compaction across 16 data centers and service centers, with a view to improving energy efficiency across this entire area of operation.

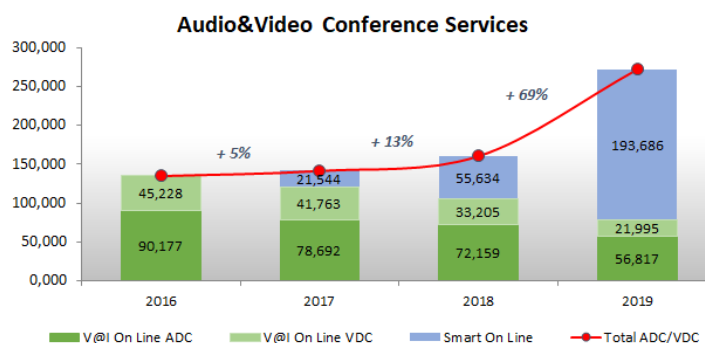
## Trigeneration

Distributed generation for self-consumption was increased through the optimization of existing plants and the construction of 6 new trigeneration plants in order to serve the most energy-intensive sites (Rozzano, Bologna, Pomezia, Rome Tor Pagnotta, Rome Oriolo Romano). These are expected to be fully operational from February 2021 and will enable an increase in self-produced energy estimated at 75 GW of electricity, which equates to 85.5 GWh - a figure which also takes into account the lower energy withdrawals from the grid as a result of the energy not consumed by refrigeration units. As such, TIM currently operates 30 trigeneration plants. The older plants were subject to a process of optimization over the course of 2019. Specifically, this operation saw the replacement of absorbers in 3 large plants (Padua, Rozzano and Bologna), with an estimated efficiency recovery of around 10 GWh in 2020 compared to the total for 2019.

In addition to the internal awareness campaigns regarding energy savings already mentioned at the beginning of this section, other Group-wide initiatives include those regarding *integrated decommissioning and network simplification*; in this area, plans to compact the network (PSTN, ATM DSLAM, IP DSLAM, SuperSGU) and to rationalize and simplify the network platforms (Core Voice platforms, transport networks, data networks) are ongoing, with a total saving of more than 50 GWh achieved in 2019.

## Reducing staff travel

TIM is committed to finding solutions to reduce staff travel and movement. In addition to proposed smart working days, TIM provides its employees with “VAI On Line” and Smart On Line (launched in 2017) audio and video conferencing services, for both its own employees and for those of Group companies. The use of these services increased by 69% in 2019 compared to 2018. Details as follows:



- VAI On Line: 21,995 video conferences held by TIM and other Group companies;
- VAI On Line: 56,817 audio conferences held by TIM and other Group companies;
- Smart On Line: 193,686 audio/video conferences held by TIM.

## IoT and environmental research

As a further demonstration of its commitment to the environment, every year TIM invests in research into innovative solutions for limiting environmental impact by limiting the consumption of natural resources and energy. These activities are detailed in the following paragraphs.

TIM has also had many patents granted in this area. TIM has begun numerous ICT research projects in the area of the Internet of Things (IoT), applied to the world of Smart Cities and of positive environmental impact.

**Smart grid.** IoT application for the management of electrical networks in terms of distributed generation and remote control. Continuing sharing telecommunication and power distribution network infrastructure with a view to cutting costs and reducing their environmental impact.

**Smart water.** IoT application for managing water distribution networks through the identification of hidden water leaks. To search for leaks and optimize distribution costs, TIM is also experimenting with multi-utility smart metering solutions (applications for real time usage monitoring), which cover water, gas and, if necessary, also electricity, based on widespread networks like IoT Narrowband<sup>1</sup>.

**Smart waste.** Efficient management of the waste cycle for increasing sorted collection and reducing illegal dumping. The fill levels of the various recycling centers are measured in real time and vehicles sent out to empty them only when necessary. Result: time and expense are minimized and roadside bins overflowing with municipal rubbish are avoided.

**Other projects.** In the field of eco-sustainability, the REPLICATE (Firenze Smart City) and MONICA (Torino Smart City) projects are particularly significant.

The REPLICATE<sup>2</sup> project focuses on smart energy, smart mobility and smart waste solutions and the development of IoT platforms for managing the distribution of water and waste management in collaboration and partnership with the municipality of Florence. It was launched in 2016 and will last for five years.

The MONICA<sup>3</sup> project is focused on urban noise pollution and safety in public life. TIM contributed to the “Torino Smart City” project known as SMILE<sup>4</sup> focusing on the theme of life & health. Based on input from the SMILE project, the Municipality of Turin has drawn up a master plan for Torino Smart City. TIM has signed a Memorandum of Understanding with the Municipality which provides for the use of 5G technologies to develop sustainable smart city services. The project, which began in July 2017, will be completed by mid-2020.

## Consumer Products: TIM eco-friendly

In order to improve the environmental efficiency of products offered to customers, attention has to be paid to their energy aspects to optimist consumption while meeting the needs of the services delivered and applying “design for environment”

<sup>1</sup>This solution is based on a new radio interface which can be used either on a portion of the LTE signal band (or on the band separating the bands), or independently in portions of the spectrum made available by the release of frequencies.

<sup>2</sup> REnaissance of PLaces with Innovative Citizenship And TEchnologies; part of the European Horizon 2020 program.

<sup>3</sup> Management Of Networked IoT Wearables – Very Large Scale Demonstration of Cultural Societal Applications; part of the European Horizon 2020 program.

<sup>4</sup> SMarT mobLiTy at the European land borders; part of the European Horizon 2020 program.



rules that reduce their environmental impact, particularly during the production phase and the end-of-life management of equipment. It is the responsibility of the ICT sector, and therefore also of TIM, to consider these aspects, focusing on research and development to create products with a low environmental impact throughout the entire life cycle.

At the end of the 1990s, TIM launched a series of internal research and development activities to finalise the building of terminals with a reduced environmental impact. The Telecom Italia Green logo, renamed TIM eco-friendly in 2015, was created to identify both TIM's environmental protection initiatives and projects and eco-friendly products. For each product and initiative with this logo, information is provided about the features and specific solutions adopted to demonstrate their eco-friendliness and/or environmental benefit. In the case of products, this information appears in the environmental statement, drawn up in accordance with the UNI EN ISO 14021 standard, as well as in the sustainability section of the [telecomitalia.com](http://telecomitalia.com) website, where information can also be found about the "eco-friendly" features of initiatives and projects.

The TIM eco-friendly range includes dedicated products for businesses and consumers developed in cooperation with suppliers. The electricity savings also translate into an equivalent reduction of greenhouse gas emissions. The entire TIM eco-friendly range of products are designed using eco-design criteria. The casing and packaging are made using uniform, recycled and/or recyclable materials. In 2019 TIM Gamepad Bluetooth was launched, part of the eco-friendly line with excellent results in environmental tests and an appropriate environmental declaration<sup>1</sup>.

## TIM's environmental performance

### Energy and natural resources consumption

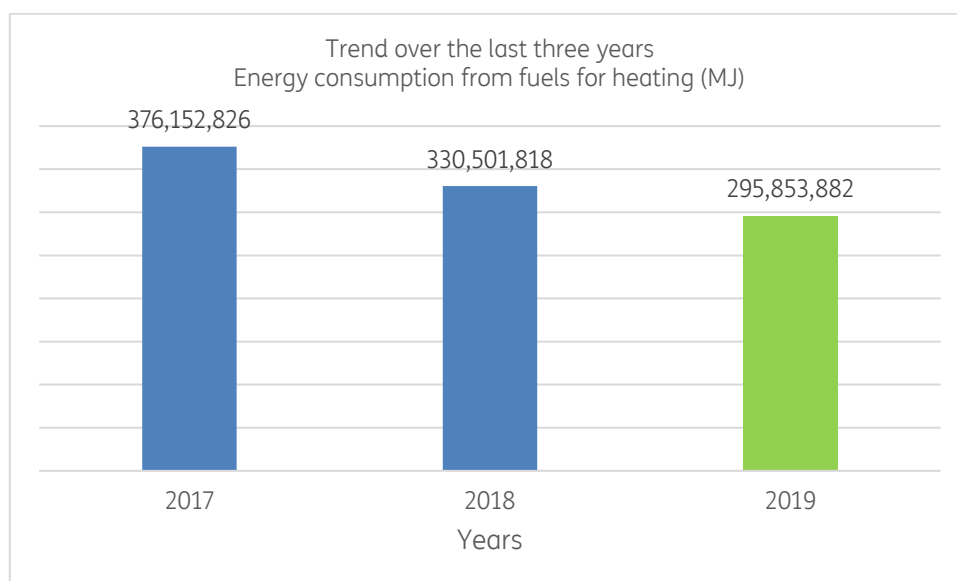
[GRI 302-1], [GRI 302-2], [GRI 302-4] The Group's energy consumption is presented broken-down into consumption for heating, transport and purchased and produced electricity.

#### Heating

The data in the table shows a significant reduction in 2019 compared to 2018 and 2017 mainly attributable to real estate rationalization and energy efficiency. In **Brazil**, given the particular climate conditions throughout the year, indoor heating is not used. Compared to 2018, consumption of energy for heating decreased in 2019 by 34,647,936 MJ.

		Group	Domestic	Brazil
Energy generated by heating oil	MJ	16,991,236	100%	0%
Energy generated by methane	MJ	278,862,646	100%	0%
Total energy for heating	MJ	295,853,882	100%	0%
2019 v. 2018		(10)%	(10)%	NC
2019 v. 2017		(21)%	(21)%	NC

<sup>1</sup> <https://www.telecomitalia.com/tit/it/sustainability/actions-dialogue/environment/sustainable-products-services/products/TIM-Game-Pad-Bluetooth.html>



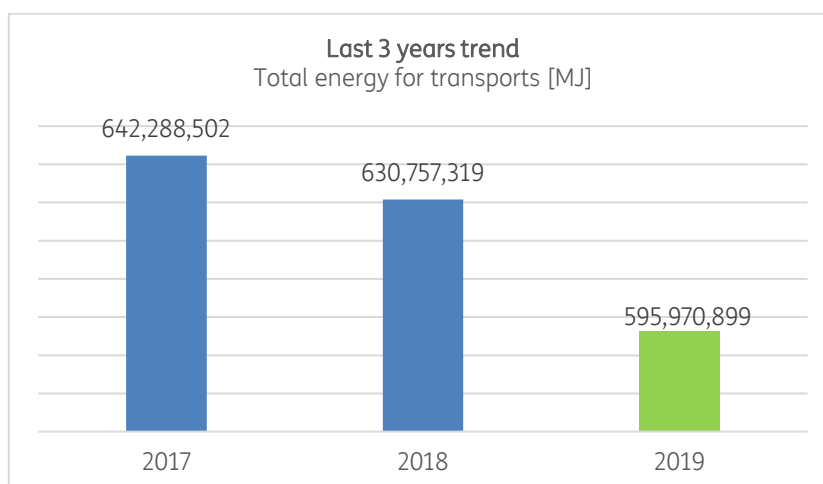
## Transport

The data shown here refers to all the Group's vehicles (industrial, commercial, used by senior managers/middle managers/sales people), both owned and hired. The vehicles, consumption and mileage of vehicles owned or in use by the sales force of *TIM Participações* have been included only where usage is significant and continuous. In general, energy consumption for transport is decreasing.

		Group	Domestic	Brazil
Energy from unleaded petrol	MJ	63,690,302	54%	46%
Energy from diesel fuel	MJ	532,266,842	100%	0%
Energy from LPG	MJ	13,755	100%	0%
Total energy for transport*	MJ	595,970,899	95%	5%
2019 v. 2018		(6)%	(6)%	2%
2019 v. 2017		(7)%	(8)%	12%
Total number of vehicles	No.	15,188	95%	5%
2019 v. 2018		(1)%	(2)%	19%
2019 v. 2017		(5)%	(5)%	20%
Total distance travelled	km	250,537,979	96%	4%
2019 v. 2018		(6)%	(6)%	8%
2019 v. 2017		(3)%	(3)%	14%

\* Represents conversion into megajoules of the consumption of unleaded petrol, diesel and LPG (expressed in liters).

In general, energy consumption due to transport decreased thanks to a rationalization of the fleet and restrains on travel.



### Electricity procured and produced

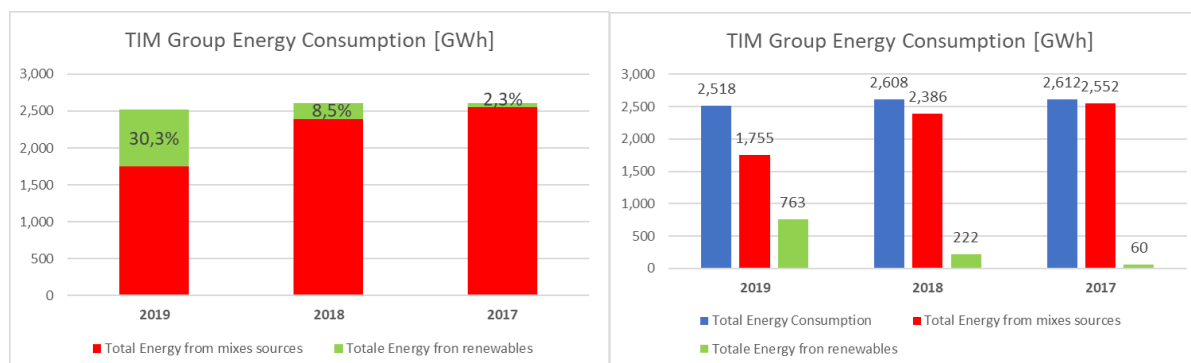
Consumption figures for electricity used to operate telecommunications and civil/industrial technological plants. Thanks to energy efficiency measures implemented in 2019, overall electricity consumption has fallen. The energy efficiency of TIM was also recognized through the awarding of Energy Efficiency Certificates (EEC, also known as White Certificates): in 2019 an additional 4,868 white certificates were allocated and sold with sales revenues of approximately 1.3 million euros in 2019. Guarantees of origin covering 383 GWh were also purchased in 2019. The share of energy from renewable sources has increased in **Brazil** thanks to purchase agreements and the rise in self-production from renewable sources.

		Group	Domestic	Brazil
Electricity from mixed sources	kWh	1,754,816,443 (GJ 6,317,339.195)	81%	19%
2019 v. 2018		(26)%	(22)%	(42)%
2019 v. 2017*		(31)%	(23)%	(53)%
Electricity from renewable sources**	kWh	762,963,705 (GJ 2,746,669.338)	50%	50%
2019 v. 2018		244%	587%	129%
2019 v. 2017		1168%	573%	11430%
Total electricity consumption	kWh	2,517,780,148 (GJ 9,064,008.533)	71%	29%
2019 v. 2018		(3)%	(3)%	(4)%
2019 v. 2017		(4)%	(5)%	(1)%

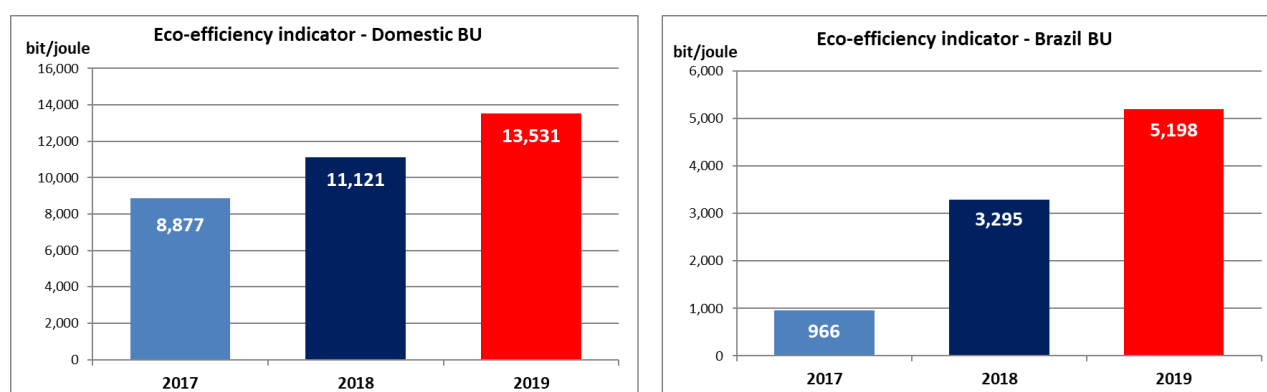
\* The comparison was made with 2017 data, which was updated from that reported in the 2017 Sustainability Report, following a further revision after its publication. The updated 2017 data refers to the total electricity purchased from mixed sources by BU Domestic in 2017, equal to 1,832,667,761 kWh and to the cogeneration of electricity in 2017, equal to 102,996,893 kWh.

\*\* Including the purchase of Guarantees of Origin.

## Electricity consumption over the last 3 years and share of renewable energy



[GRI 302-3] The Group measures its energy efficiency by using an eco-efficiency indicator that establishes a relationship between the service offered to the customer (bits transmitted) and the company's impact on the environment (joules of energy consumed). The factors taken into consideration are the amounts of data and voice traffic of the fixed and mobile networks, and energy consumption for industrial purposes (transmission and climate control in exchanges), civil purposes (electricity for office use, air conditioning and office heating) and vehicles. The graphs below show the level of the eco-efficiency indicator over the past three years for the Domestic and Brazil BUs.



In 2019, the value of the indicator calculated for the Domestic BU was 13,531 bit/joule, up 21.67% compared to 2018<sup>1</sup> and 52.43% compared to 2017. This is the result of a substantial increase in data traffic, which, thanks to the efficiency of the network, has not led to a corresponding increase in electricity consumption. The commitment continues with the establishment for 2020 of a target of 14,200 bit/Joule (see 2019 objectives at the end of this Chapter), equal to an increase of 4.94% on the figure for 2019.

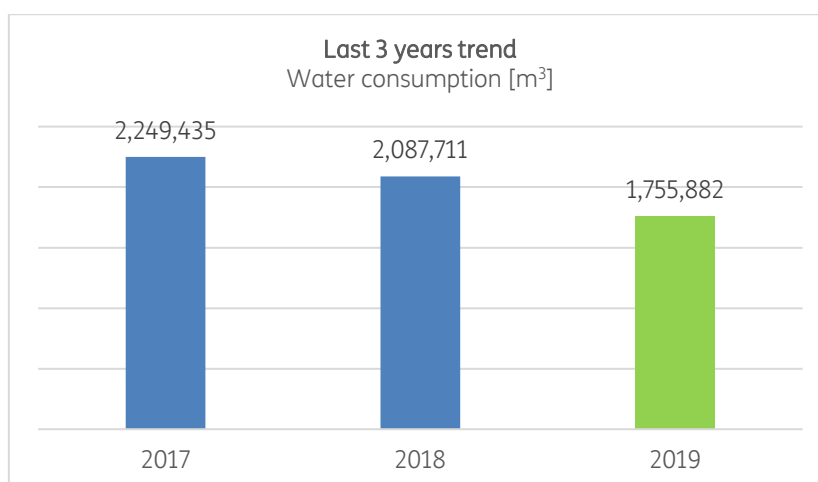
The eco-efficiency index calculated for Brazil shows a continuous improvement too: in 2019 it grew significantly by 58% compared to 2018 and by over 438% compared to 2017. The values of the indicators calculated respectively for Italy and Brazil are not directly comparable because the two organizations are very different in operational and environmental terms: e.g. in Brazil the traffic is primarily mobile and, as previously mentioned, no heating fuels are used in view of the particular climate conditions.

<sup>1</sup> The comparison was made with 2017 data updated from that reported in the last Sustainability Report, following a further revision after its publication. The updated 2017 figure for the Domestic BU eco-efficiency indicator is 8,877 bit/joule.

## Water consumption

[GRI 303-1] The downward trend in water consumption is continuing thanks to targeted management and awareness actions.

		Group	Domestic	Brazil
Consumption of water drawn from artesian wells	m3	6,209	0%	100%
Consumption of water provided by water supply companies	m3	1,739,978	96%	4%
Consumption of water drawn from other sources	m3	9,695	0%	100%
<b>Total water consumption</b>	<b>m3</b>	<b>1,755,882</b>	<b>95%</b>	<b>5%</b>
2019 v. 2018		(16)%	(15)%	(26)%
2019 v. 2017		(22)%	(21)%	(38)%



## Paper for office and commercial purposes

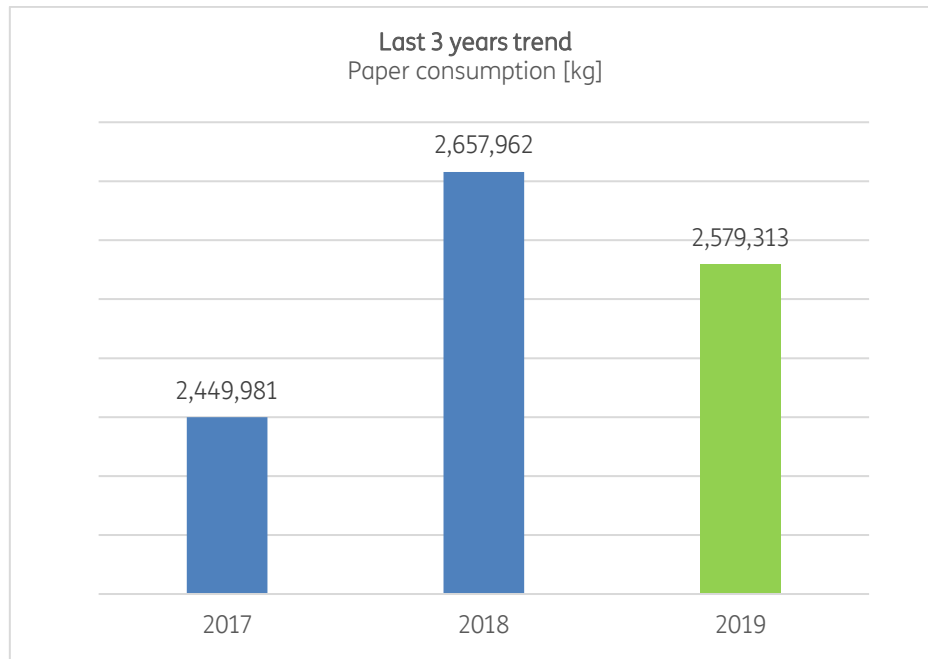
Purchases of paper for office and commercial use (telephone bills) continue to be directed at product types that meet the highest environmental standards based on the responsible management of forests according to the Forest Stewardship Council (FSC) requirements<sup>1</sup>.

		Group	Domestic	Brazil
Non-recycled and non-certified paper purchased for office use	kg	2,047	100%	0%
Recycled paper purchased for office use	kg	1,733	100%	0%
FSC certified paper purchase for office use	kg	252,549	85%	15%
<b>Total paper purchased for office use</b>	<b>kg</b>	<b>256,329</b>	<b>85%</b>	<b>15%</b>
2019 v. 2018*		36%	30%	87%
2019 v. 2017		31%	25%	87%
<b>Total paper purchased for commercial use</b>	<b>kg</b>	<b>2,322,984</b>	<b>77%</b>	<b>23%</b>

<sup>1</sup> see fsc.org

2019 v. 2018	(6)%	6%	(32)%
2019 v. 2017	3%	23%	(33)%

\* The comparison was made with 2017 data, which was updated from that reported in the last Sustainability Report, following a further revision after its publication. The updated 2017 figure is equal to 195,409 kg of paper.





## Atmospheric emissions

[GRI 305-1] [GRI 305-2] [GRI 305-3] [GRI 305-5] [GRI 305-6] The Group's greenhouse gas emissions consist almost exclusively of carbon dioxide generated by fossil fuels for heating, transport, power generation and the purchase of electricity from third parties. In addition to these, fugitive emissions of hydro chlorofluorocarbons, hydro fluorocarbons (HCFCs and HFCs) and other gases from air conditioning and fire prevention systems are also considered and converted into kg of CO<sub>2</sub> equivalent (see table Emissions of ozone depleting gases in this section).

For atmospheric emissions as well, use is made of the GHG Protocol approach, distinguishing between direct or Scope 1 emissions (use of fossil fuels for transport, heating, power generation and fugitive ozone depleting emissions), indirect or Scope 2 emissions (purchase of electricity for industrial and civil use) and other indirect or Scope 3 emissions. Nitrogen oxides (NOx) and sulphur oxides (SOx) emissions [GRI 305-7] are negligible in Group emissions.

The following table shows market based Scope 1 and Scope 2 emissions.

[GRI 103-3: Management Approach] [GRI 305] The table below shows the Group's Scope 1 and Scope 2 emissions.

		Group	Domestic	Brazil
CO <sub>2</sub> emissions from transport*	kg	43,833,718	95%	5%
CO <sub>2</sub> emissions from heating*	kg	16,850,916	100%	0%
Emissions of CO <sub>2</sub> equivalents for ozone depleting gases**	kg	15,186,313	60%	40%
CO <sub>2</sub> emissions from electricity generation by cogeneration*	kg	68,889,975	100%	0%
CO <sub>2</sub> emissions from electricity generation using diesel*^	kg	9,067,693	92%	8%
Total direct emissions of CO <sub>2</sub> - ex Scope1 GRI**	kg	153,828,615	94%	6%
2019 v. 2018		(7)%	1%	(60)%
2019 v. 2017		5%	5%	8%
CO <sub>2</sub> emissions from purchases of electricity generated from mixed source***	kg	641,540,530	96%	4%
Total indirect emissions of CO <sub>2</sub> - ex Scope2 - market based	kg	641,540,530	96%	4%
2019 v. 2018		(6)%	(4)%	(41)%
2019 v. 2017^^		(12)%	(7)%	(62)%
Total indirect and direct emissions of CO <sub>2</sub> - ex Scope 1 + 2 - market based	kg	795,369,145	96%	4%
2019 v. 2018		(7)%	(3)%	(47)%
2019 v. 2017^^		(9)%	(5)%	(54)%

\* The emission factors used in 2019 are the ones published by ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale) in 2019, possibly supplemented with DEFRA (Department for Environment, Food and Rural Affairs) data. The WRI/GHG Protocol proposed the factors used in previous years.

\*\* The value of CO<sub>2</sub> equivalent emissions of hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC) and other refrigerant gases is calculated with reference to the respective global warming potentials (GWP - Global Warming Potential) shown in the specific table. the index is based on a relative scale that compares the gas considered with an equal mass of carbon dioxide with a GWP of 1.

\*\*\*A residual mix value of 483 grams of CO<sub>2</sub> per kWh (AIB, 2018) was used to calculate emissions linked to the consumption of electricity from mixed sources purchased on the Italian market (Scope 2 market based). For previous years, the coefficient published by WRI/GHG Protocol (2009) calculated based on the national mix was used. For Brazil, the average grid factors for 2017, 2018 and 2019 calculated and published by the local Ministry of Science, Technology, Innovation and Communication were used. They amounted to approximately 92.7, 74 and 75 grams of CO<sub>2</sub>/kWh respectively.

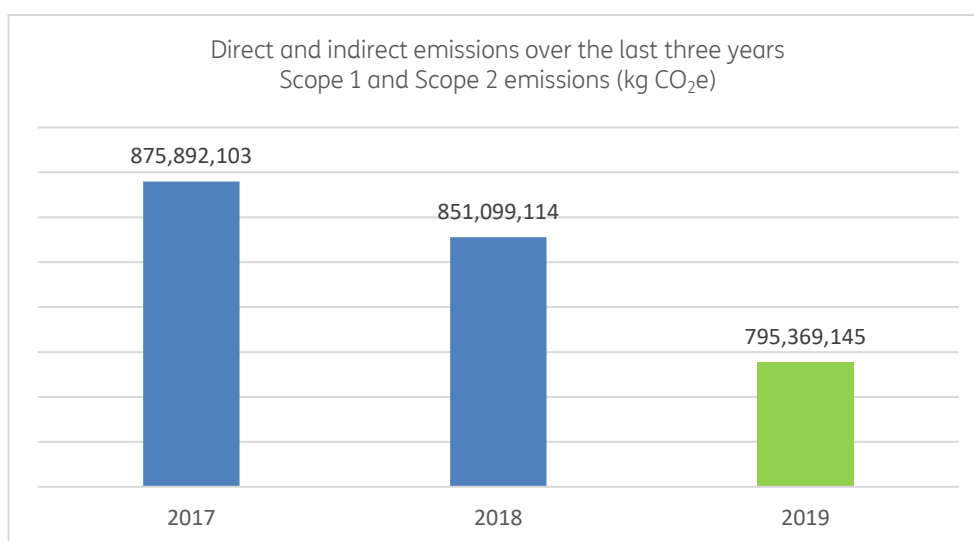
^ The comparison was made with methane consumption data from 2017, which was updated from that reported in the 2017 Sustainability Report as it was received after its publication. The updated 2017 figure is equal to 27,860,685 m<sup>3</sup> of methane for cogeneration, whose related 2017 emissions amount to 54,693,813 kg of CO<sub>2</sub>.

^^ The comparison was made with updated 2017 data following a review. The updated 2017 figure is equal to 729,941,521 kg of CO<sub>2</sub>.

The following table instead illustrates the location based CO<sub>2</sub> emissions from electricity purchased.

Scope 2- Location Based		2019	2018	2017	2019/2018	2019/2017
BU Domestic	kg	524,571,439	543,606,151	561,128,254	-4%	-7%
Brazil	kg	35,058,014	52,379,789	66,591,884	-33%	-47%
Group	kg	559,629,453	595,985,941	627,720,139	-6%	-11%

The three-year performance of direct and indirect emissions shows a positive trend thanks to policies for limiting consumption, energy efficiency plans and the Group's investment in energy from renewable sources.



#### Ozone depleting gases emissions 2019 - Brazil

Gases	Dispersed quantity [kg]	ODP	CFC 11 eq. [t]	GWP (100 yrs)	CO <sub>2</sub> Emissions [kgCO <sub>2</sub> e]	Type
HCFC-22/R22	1,607.7	0.055	0.08842	1,810	2,909,855.6	HCFC
HFC-134a	476.5	0	0.00000	1,430	681,366.4	HFC
R407C	534.1	0	0.00000	1,774	947,475.4	HFC
R410A	603.4	0	0.00000	2,088	1,259,931.5	HFC
HCFC-141b	65.6	0,11	0.00722	725	47,560.0	HCFC
HCFC-142b	10.0	0,065	0.00065	2,310	23,100.0	HCFC
HFE-143a	54.4	0	0.00000	756	41,126.4	HFE
R407A	52.0	0	0.00000	2,107	109,564.0	HFC
Total HFC	1,666.0		0.00000		2,998,337.3	
Total HCFC	1,683.3		0.09629		2,980,515.6	
Total other gases	54.4		0.00000		41,126.4	
<b>Total</b>	<b>3,403.6</b>		<b>0.09629</b>		<b>6,019,979.2</b>	

### Ozone depleting gases emissions 2019 – BU Domestic

Gases	Dispersed quantity [kg]	ODP	CFC 11 eq. [t]	GWP (100 yrs)	CO <sub>2</sub> Emissions [kgCO <sub>2</sub> e]	Type
R134A	265	0	0	1,430	378,950	HFC
R407C	1,854.91	0	0	1,774	3,290,610	HFC
R410A	771.93	0	0	2,088	1,611,790	HFC
R417A	1051.32	0	0	2,346	2,466,397	HFC
R422D	286.2	0	0	2,729	781,040	HFC
R427A	5	0	0	2,138	10,690	HFC
R22	346	0.055	0.01903	1,810	626,857	HCFC
Total HFC	4,234		0		8,539,477	
Total HCFC	346		0.01903		626,857	
Total other gases	0		0		0	
<b>Total</b>	<b>4,580.69</b>		<b>0.01903</b>		<b>9,166,334</b>	

[GRI 103-3: Management Approach] [GRI 305] The table shows some categories of Group's Scope 3 emissions.

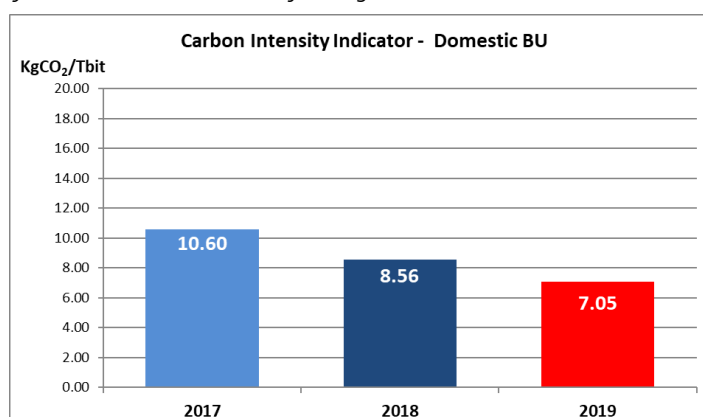
		Group	Domestic	Brazil
CO <sub>2</sub> emissions from work-home commuting*	kg	54,014,018	91%	9%
CO <sub>2</sub> emissions from work-home commuting**	kg	5,330,867	55%	45%
Total indirect emissions of CO <sub>2</sub> – under Scope 3 GRI	kg	59,344,885	88%	12%
2019 v. 2018		(10)	(12)	4
2019 v. 2017		(13)	(16)	13

\* In determining the impact of home-work commuting, reference is made to statistical data produced on the company's personnel.

\*\* Emissions due to air travel were calculated by the study and research center of American Express (the Travel Agency used by TIM) supported by DEFRA (Department of Environment, Food and Rural Affairs of the United Kingdom) based on the number of journeys actually made, subdivided by the duration of each individual journey (short, medium or long).

[GRI 305-4] TIM also measures the “Carbon Intensity” of its Domestic<sup>1</sup> BU by using an indicator that establishes a relationship between the company's direct and indirect operational CO<sub>2</sub> emissions (Scope 1 and Scope 2), measured in kg and generated by Company's activities), with the service offered to the customers (Tbits transmitted).

The factors taken into consideration are the amount of data and voice traffic of the fixed/mobile network and direct emissions produced by using fossil fuels for heating, vehicles and self-production of electrical energy together with indirect emissions due to purchase and consumption of electrical energy from grid.



In 2019 the value of the indicator fell by more than 17% compared to 2018 and by more than 33% compared to 2017<sup>2</sup>. The traffic transmitted increased by more than 9% compared to 2018 and by 39% compared to 2017.

<sup>1</sup> The operations of Persidera and the Olivetti Group are not included.

<sup>2</sup> The comparison was made with 2017 data updated from that reported in the last Sustainability Report, following a further revision after its publication. The updated 2017 figure for the carbon intensity indicator is equal to 10.6 kg of CO<sub>2</sub>/Tbit.

## Waste

[GRI 306-2] The data shown in the table refer to the quantity of waste consigned<sup>1</sup> and recorded by law<sup>2</sup>.

		Group	Domestic	Brazil
Hazardous waste	kg	2,209,309	75%	25%
Non-hazardous waste	kg	6,585,661	93%	7%
Total waste consigned*	kg	8,794,970	88%	12%
2019 v. 2018		(36)%	(39)%	15%
2019 v. 2017		(24)%	(31)%	180%
Waste sent for recycling or recovery	kg	8,426,811	92%	8%
% Waste sent for recycling or recovery		96%	100%	66%

\* The data does not include the Domestic BU telephone poles because these are not disposed of as ordinary waste but under the framework agreement signed in 2003 with the Ministry of the Environment and Land Protection, the Ministry of Production Activities and the production and recovery companies, subject to the favorable opinion of the conference of State-Regions-Autonomous Provinces. In 2019, TIM decommissioned 162,303 poles weighing a total of 12,984 tons.

The data relating to waste shows a variable trend over time in relation to quantity and type of waste. The most significant figure is that of the ratio of waste produced and that sent for recycling/recovery, which remains at a high level. ICT can accelerate the obsolescence of products and require the resulting technological waste to be managed. TIM has entered into contracts with companies specialised in handling used, faulty and end-of-life products, with the aim of reclaiming components and raw materials and at the same time obtaining tangible economic benefits deriving from their recovery. In 2019 the various management activities allowed logistics and network products (31,310 pieces) to be refurbished, while components and raw materials (600,096 kg in total, almost exclusively fixed telephony parts) were recycled. In 2019, TIM re-sold a total of 15,000 used mobile telephony items.

<sup>1</sup> "Waste consigned" means waste delivered to carriers for recycling or reclamation or disposal.

<sup>2</sup> Slight variations compared to the situation on December 31 may occur until the following March 30, because the source of the data is the records of waste loaded and unloaded, which are consolidated once the actual weight at destination has been verified; The information is supplied to the producer of the waste within 3 months of consignment, which is the reason for the potential variations in the data. In this regard, ascertained waste production for 2018 was lower (-10.12%) than stated in the last Report. However, this increase was not taken into account in the 2019 on 2018 comparison of waste produced.

## 2019 Results. 2020 and multi-annual targets

### Domestic BU – Environment

Area of reference	Indicator	Unit of measurement	Actual figure 2019	Target 2019	Target Status	Target 2020	Target 2021	Target 2022
THE ENVIRONMENT ENERGY	Total reduction of electricity consumption**	%	3	4*	●	4	6	7
THE ENVIRONMENT ENERGY	Percentage of renewable energy out of total energy purchased and produced**	%	21	New target		26	31	36
THE ENVIRONMENT ENERGY	Eco-efficiency indicator	bit/joule	13,531	13,300	●	14,200	15,400	17,400
THE ENVIRONMENT ATMOSPHERIC EMISSIONS	Reduction of CO <sub>2</sub> emissions from the purchase and production of electricity (base year 2019)**	%	Emissions from purchased and produced electricity: 693 Mt	Target changed: base year modified		11	24	33

\*The electricity consumption target of 1,785 GWh shown in the 2018 Sustainability Report corresponds to a reduction of 4% compared to total electricity consumption compared to 2018.

\*\* The 2020-2022 targets represent percentage reductions compared to total consumption in 2019.

### TIM Brasil – Environment

Area of reference	Indicator	Unit of measurement	Actual figure 2019	Target 2020
THE ENVIRONMENT WATER	Reduction of water consumption for civil use	%	3	1
THE ENVIRONMENT WASTE	Collection of mobile phones, batteries and other accessories for recycling	Tons	0.615	1.5
THE ENVIRONMENT WASTE	Relationship between recycled waste and total waste generated in offices	%	12	13

## **The value chain**



## Research and development

### In Italy

[GRI 103-1: Management Approach] [GRI 203] Innovation - understood as the research and development of innovative technologies and services, processes and business models - plays a key role in the Group's ability to keep on top of the profound transformations that are coming about as a result of ICT<sup>1</sup>, as well as being a necessary and driving force in this evolution with regard to its customers and the country-specific system, helping to overcome the socio-cultural barriers that limit the possibilities of participating in the information society and enjoying the benefits that come with it.

[GRI 103-2: Management Approach] [GRI 203] TIM has always considered innovation to be a strategic asset and takes great care in managing the individual aspects thereof, including its strategic role, responsibility, objectives and policy. With regards to the role itself, in 2019, both technological and business-related innovation once again played a key role in responding to the changing technological, market and competitive environment. This being the case, the Group has pursued several avenues of development:

- continuing the efforts it initiated in 2016 to strengthen internal lines of innovation, focusing the activities of its laboratories and research groups on the fundamental aspects of the evolution of fixed and mobile networks to 5G<sup>2</sup> and ultra-broadband standards based on service platforms and new operating systems;
- selecting, accelerating and co-creating innovative ideas, products and services from the world of start-ups<sup>3</sup> and small and medium-sized enterprises (SMEs), in keeping with emerging innovative trends and those of interest to TIM, with a view to improving the commercial offering and internal processes and encouraging the growth of the Italian start-up ecosystem through the TIM corporate accelerator. TIM WCAP (working capital) leverages the principles of 'Open Innovation' and the five territorial hubs<sup>4</sup> (Milan, Bologna, Rome, Naples and Catania) in order to promote a certain contamination that not only concerns the world of start-ups but also extends to global ICT partners (such as CISCO) and the main Italian universities (such as Federico II in Naples, where the Naples hub has been created);
- catalyzing the capacity for innovation on the part of start-ups through TIM WCAP's acceleration programme and venture capital (equity) investments on the part of TIM Ventures - TIM's corporate venture capital<sup>5</sup>. Indeed, TIM WCAP launched a 'call for start-ups'<sup>6</sup> and two 'calls for partners' in 2018 and held several hackathon<sup>7</sup> and contamination initiatives at its regional hubs in 2019;
- implementing initiatives that enable the growth of co-creation ecosystems such as the IoT (Internet of Things) Open Lab - a laboratory dedicated to the development of IoT solutions based on technologies that are of key importance to the telco operator from an open innovation perspective.

[GRI 103-2: Management Approach] [GRI 203] Innovation management is overseen, through various *missions*, by the Technology Architectures & Innovation and engineering functions and involves various internal and external stakeholders:

- other areas of the company that might be involved in these issues from time to time, both as internal clients with regard to the innovation output solution and as centers of expertise with regard to the issue in question;
- partners, both traditional and digital, in the joint go2market<sup>8</sup> digital services initiative;
- research centers and universities, for the purposes of collaborations and joint projects. [GRI 203-1] In 2019, a number of research contracts were signed with nine Italian universities amounting to a total value of 1.3 million euros (further information is provided later in this paragraph);

<sup>1</sup>Information and Communication Technology.

<sup>2</sup> Acronym for fifth generation mobile technology and standards.

<sup>3</sup> New companies demonstrating high levels of innovation.

<sup>4</sup> Center of an activity, region or network.

<sup>5</sup> TIM Ventures is the company belonging to the TIM Group that invests in corporate venture capital.

<sup>6</sup> Invitation to participate in new initiatives.

<sup>7</sup> The word 'hackathon' is a combination of the words 'hacking' and 'marathon'. During a hackathon, which lasts for a limited period of time (ranging from a few hours to a few days), participants must create a usable software program, often based on a certain theme (e.g. an app for smartphones).

<sup>8</sup> The strategy of an organization that uses both internal and external resources (e.g. sales force) can be defined with a view to making its unique value proposition available to customers and gaining a competitive advantage.

- on an international level, a wide range of standardization bodies (including the ETSI<sup>1</sup>, the ITU<sup>2</sup>, the CENELEC<sup>3</sup> and 3GPP<sup>4</sup>, among others), associations (the most notable of which include the GSMA<sup>5</sup> and the NGMN<sup>6</sup>), alliances (such as oneM2M<sup>7</sup> and BBF<sup>8</sup>) and telco open communities (such as the ONF<sup>9</sup> and CORD<sup>10</sup>), which play a key role in the evolution of the TLC industry/sector with regard to networks, platforms and services, in which TIM is involved through partnerships<sup>11</sup> with the main stakeholders in the sector. In 2019 in particular, TIM confirmed its interest in joining the main standardization bodies and associations with 29 registrations, two more than in 2018, representing a total commitment of around a million euros. The two new international bodies of which TIM has become a part are strongly linked to the digital transformation process that the company is undertaking with regard to 5G, these being the 5GAA (5G Automotive Association), which aims to accelerate and promote the industrialisation of connected mobility services, and the O-RAN<sup>12</sup> Alliance (Open RAN Alliance) - an initiative involving the world's leading carriers and aimed at promoting greater openness and programmability of radio access systems.
- on a national level, collaborative relationships have been established with various ministries (including the Ministry of Economic Development and the Ministry of Education, University and Research), the European Union and public bodies (such as the Italian National Research Council (CNR) and local authorities) for the purposes of implementing projects funded through participation in calls for tenders and partnership initiatives. The year 2019 notably saw TIM contribute to the design proposal and creation of production lines based on the new Industry 4.0 technology in the framework of the Competence Industry Manufacturing 4.0 (CIM 4.0) initiative introduced at the end of 2018 with a view to promoting the transfer of technological skills and innovation in production processes, products and business models.

TIM has developed a joint innovation and shared success pathway in conjunction with Huawei and Cisco, as well as signing a strategic agreement with Microsoft for the development of artificial intelligence, in addition to the various collaborations already in place between the two companies both in Italy and Brazil. Artificial intelligence, with the help of Data Analytics and Big Data Advanced Analytics<sup>13</sup>, is now an essential lever in digital transformation. The collaboration with Microsoft will lead to the development of innovative tools for customizing products and services and enriching the TIM offering.

TIM's technological evolution is based on the CTO Technology Strategy, which outlines technological strategy in terms of guidelines, specific technologies and roadmaps for implementation over a period of several years. The three-year technology plan is the Group's reference document and includes plans for the technological evolution of its various subsidiaries. The plan identifies the main exogenous factors that might influence company strategies (regulation, standards, suppliers and other operators in the market) and defines both the reference technological architecture and the evolution of specific technologies, as well as the company structures involved and the corresponding roadmaps for deployment or assessment. Qualitative and/or quantitative objectives correspond to a period of several years and are broken down on an annual basis and defined in a way that means they can be objectively measured in compliance with

<sup>1</sup> European Telecommunications Standard Institute.

<sup>2</sup> International Telecommunication Union.

<sup>3</sup> European Committee for Electrotechnical Standardization.

<sup>4</sup> 3<sup>rd</sup> Generation Partnership Project.

<sup>5</sup> GSM Association.

<sup>6</sup> Next Generation Mobile Networks.

<sup>7</sup> oneM2M aims to develop technical specifications that meet the need for a common M2M (machine to machine, i.e. technologies and services that allow for the automatic transfer of information with little or no human interaction) service level that can be easily incorporated into various hardware and software solutions and that can be relied upon to connect the myriad of devices out in the field with M2M application servers around the world.

<sup>8</sup> The Broadband Forum focuses on developing the standards that shape current and future cable & wireless, transport, border and core networks to support domestic, business and converged broadband services with the aim of unlocking new markets using new technologies and standards for advanced broadband networks.

<sup>9</sup> The Open Led Consortium, which transforms technical networks into agile platforms for service delivery.

<sup>10</sup> The CORD (Central Office Re-architected as a Datacenter) platform uses SND, NFV and Cloud technologies to create agile data centers for the edge of the network. CORD integrates multiple open source projects to offer an agile, open, programmable and native platform for network operators to create innovative services. CORD has also proven to be a comprehensive integrated platform that includes everything required to create an operational data center complete with integrated service capabilities, all based on basic hardware that uses the latest native cloud design principles.

<sup>11</sup> Close cooperation, generally between two or more companies, for the purposes of implementing joint projects.

<sup>12</sup> RAN - Radio Access Network.

<sup>13</sup> Big data analytics is the process whereby big data is gathered (from the Internet of Things, smart cars, social networks, etc.) and analyses to obtain useful information for the business. Big data analytics techniques make it possible to provide companies with new information on issues such as the market context, competition and customer behavior to improve customer experience strategies, etc.

the relevant standards governing quality (ISO9001), environmental factors (ISO14001) and operational processes of innovation; TIM's processes are generally based on the Telemanagement Forum's E-Tom reference standard<sup>1</sup>.

**[GRI 203-1]** In 2019 TIM committed a total of around 1,300 employees to working on technological innovation and engineering activities in 2019, representing an overall investment of 1,113 million euros, for the S.p.A.

**[GRI 103-3: Management Approach] [GRI 203] Activities for the future of mobility and networks: initiatives for 5G**

TIM switched on the new 5G network in Sanremo in February 2019 as main sponsor to the 69th Festival della Canzone Italiana song festival and also introduced the new mobile network to stadiums in Rome and Udine, doubling the performance of the 4.5G mobile network and laying the foundations for fans to enjoy the new digital experience of football matches in 5G.

In the same month, TIM introduced ten start-ups developed within the Group's TIMWCAP open innovation incubator at the Mobile World Congress 2019 in Barcelona. The ten projects spanned various fields of application, including entertainment and new e-sports, personal finance, digital commerce and mobile payment solutions right through to IoT solutions based on artificial intelligence.

Also in February 2019, TIM launched a 5G infrastructure partnership with Vodafone with a view to optimizing investment in 5th-generation networks.

In May, meanwhile, the first innovative 5G service tests on using drones and rover-type vehicles controlled remotely via the mobile network for the purposes of regional control and monitoring were launched as part of an agreement signed between the Liguria Region, the Municipality of Genoa, Liguria Digitale, Ericsson and TIM for the Digital Lab 5G.

TIM officially launched 5G in Rome on July 5, 2019 and announced the cities that were already covered (Naples, Rome and Turin), along with development plans, commercial offerings and the initial services already available for consumers and business customers.

During the summer of 2019, and thanks to TIM, the Jova Beach Party was the first music tour of the 5G era in Italy to use drones, virtual reality applications, 360° panoramic live video and multiview (multiple systems on a single screen) on 5G-enabled smartphones; all set up in demo corners right on Italy's main beaches.

In late July, TIM brought 5G to Naples and, in early August, signed a memorandum of understanding with the City of Turin that strengthened their partnership with a view to using 5G to make the Piedmontese capital a pioneering model of a digital city. The agreement notably concerned the joint development of operations and solutions in the digital field together within the Turin region for the purposes of creating innovative applications for the smart city.

TIM turned on 5G at the 40th Rimini Meeting in August 2019 and introduced the digital services of the future in an area dedicated entirely to 5G solutions and innovative start-ups, from smart benches for the smart city model to virtual reality sightseeing tools and even digital entertainment applications.

In November 2019, TIM and the City of Turin introduced Europe's first 5G Edge Cloud live network with connected drones in Turin, enabling the big data collected from IoT platforms to be processed in an integrated manner and analyses by artificial intelligence systems, consequently making the 5G Edge Cloud central to developing and deploying Smart City digital services, including public safety and driverless cars, environmental monitoring and Industry 4.0. The 5G Edge Cloud network guarantees an ultra-high bandwidth and low latency and allows extremely high amounts of data to be combined and processed, providing secure digital services of an extremely high quality that respect customer privacy and offer greater agility and flexibility when it comes to configuring services and applications according to the typical cloud logic. 5G also took center stage at the global 5GAA event in Turin, where TIM presented a series of exclusive live demos of connected driving aids designed to ensure safe, comfortable driving. The highway demos showcased at the event were produced in conjunction with the City of Turin and other partners, and they were part of the Smart Roads project and included the following: cameras and sensors on pedestrian crossings (Road Site Units) connected to the 5G network to indicate the presence of a pedestrian crossing to vehicles in the area; on-board units (OBUs) positioned on a bicycle and a vehicle with the ability to display messages on the cyclist's smartwatch and on the vehicle's display in order to indicate their respective positions and increase attention levels.

<sup>1</sup> The Business Process Framework (eTOM) can be considered an operational model structure for telecommunications service providers; the model describes the required business processes, defines the key elements and the way in which they should interact. eTOM is a standard managed by the TM Forum - an association for service providers and their suppliers in the telecommunications and entertainment sectors.

TIM then presented, under real traffic conditions, the Urban Georeferenced Alert service, developed in conjunction with the City of Turin, the FCA, the Links Foundation, the Polytechnic University of Turin, SWARCO and 5T and boasting the ability to provide useful traffic information, such as notices of work in progress, any queues that may lie ahead and speed reduction signs; this data is communicated to TIM's 5G Digital Business Platform, which sends it over the 5G network to the car, allowing the driver to make the necessary decisions.

Furthermore, TIM's 5G service at the Lingotto track in Turin has made it possible to introduce services that can share and use information in real time to project the driver into the not-too-distant future thanks, also, to the augmented reality sensors.

TIM launched its 5G commercial offering in Florence in the autumn, before extending it in late November to cover Genoa, making the first services available to families and businesses.

The year 2019 ended with two major demonstrations based on TIM's 5G technology. The first of these involved a live surgical procedure using 5G immersive reality, performed by Professor Giorgio Palazzini, who was 'teleported' from Rome to the operating theatre of the hospital in Terni during the International Conference on Digestive Surgery. The operation was followed by over 30,000 specialists and surgeons from all over the world in live multi-streaming mode<sup>1</sup>. Using three cameras installed in the hospital's operating theatre that were broadcasting simultaneously, one of which was a special 360° high-definition camera, Professor Palazzini participated live in the operation, simultaneously observing the procedure and the patient's biometric data, with the ability to zoom in and out and select any details of particular interest, as well as observing the patient's internal organs in single-view mode using a laparoscopic camera that was also connected to the network. The high quality of the 4K video communication and the immediacy of immersive reality, as guaranteed by the low latency of 5G, meant that Professor Palazzini was able to access diagnostic information in real time, comment on it and follow the operation as if he were part of the onsite team in Terni.

The second demonstration of TIM's 5G potential took place at the Monza circuit, which has become the first 5G circuit in Europe. On December 6, 2019, during the Monza Rally Show 2019, live demos of the new services made possible by the use of TIM 5G in the automotive, industry 4.0, digital tourism, smart city and drone fields were showcased, accompanied by the announcement of the launch of 5G commercial services in Brescia.

All 5G technological development activities are accompanied by a coherent technical communications activity, ranging from the editorial to the promotional aspects, including scientific dissemination events and the organization of special customer visits to the TIM innovation centers in Turin and Rome.

#### [\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) **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 the Telco Operator. 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 for use of the Lab's facilities free of charge.

#### [\[GRI 103-2: Management Approach\]](#) [\[GRI 203\]](#) **Research with universities**

In 2019, Open Innovation activities (understood as R&D participatory behavior) were largely concentrated on the new innovation model pursued at TIM and guided by top management. In particular, research and development conducted with Italian universities focused on innovative technologies and application solutions, with a special focus on the opportunities afforded by 5G.

As stated, the financial commitment was approximately 1.3 million euros, for specific research activities, in particular:

- in partnership with the Politecnico di Torino, the twenty research projects on technological innovation related to 5G and ultra-broadband, as well as cognitive computing<sup>2</sup> and artificial intelligence, as solutions for the development of new application scenarios in numerous contexts (for example the IoT and use of drones). One of the projects addressed ethical and privacy issues that may arise from using artificial intelligence;
- research projects defined as part of the MiSE (Ministry for Economic Development) Bari Matera 5G project continued, involving TIM along with six academic institutions: the National Research Council (Centro Nazionale delle Ricerche -

<sup>1</sup> Streaming can be defined as a method of transmitting or receiving data (especially video and audio material) over a computer network in the form of a constant and continuous stream, meaning that it can be played back whilst subsequent data is being received.

<sup>2</sup> A more advanced system that gives machines a part of the functions of the human brain.

CNR), the Sant'Anna School of Advanced Studies Pisa (SSSA), Bari Polytechnic, Bari University, Basilicata University and Salento University. In 2019, research projects focused on 5G and the development of new use scenarios in numerous applications developed from trials (such as Sanità 5.0 (Health 5.0), Public Safety, Smart Agriculture, Environmental Monitoring and Smart City). One of the projects was dedicated to assessing the socio/economic impacts related to trialing 5G;

- the partnership with the Milan State University continued, with the funding of two research PhDs, and the stipulation of a three-year agreement, based on which a research project was started in 2019 for the development of a “family activity recognition” module, starting from data obtained from sensors, providing service and content suggestions for family members via a digital family assistant. The partnership is part of the initiatives of the Open Innovation laboratory “Joint Open Lab” (JOL) of TIM Innovation, Milan;
- an agreement was established with Turin University, under which a study and research project was started on “smart conversational systems”, targeted at a better and more effective man/machine interaction;
- activities with Catania University continued, as part of the Catania “Joint Open Lab (JoL)”, with TIM Innovation focusing on acceleration towards a market finalization of the entire IoT ecosystem and 5G development activities.

#### [GRI 103-3: Management Approach] [GRI 203] **Funded research activity**

TIM has always been active in innovative and research initiatives funded by the European Union and by national public administrations. This has enabled it to take part in international projects on issues that TIM should have developed, with a high innovation content, to extend and consolidate its own know-how in sectors featuring rapid technological developments and to work with leading research centers, academic institutions and industries of leading European countries, as well as Taiwan and Japan; participation in projects made it possible to obtain funding of around 16 million euros over the 2017-2019 period. In this area, it has been involved in activities carried out as part of funded projects concerning 5G, visualization and intelligent mobility services, furthering its expertise and gaining a prominent position in the international sphere.

#### [GRI 103-3: Management Approach] [GRI 203] **Patents and Intellectual Property Rights<sup>1</sup>**

In 2019, the Group's patents portfolio was comparable with that of previous years; in fact, there was a slight increase in inventions evaluated for patenting, and a slight decrease in new patent filings. Moreover, activities to streamline the patents portfolio resulted in some patents being abandoned, which, with technological developments, did not have any possibility of still being used. The Group's patent areas concern the entire ICT segment, with areas of excellence in the mobile segment, particularly concerning radio access, where TIM is one of the leading TLC operators worldwide.

In detail, the TIM patents portfolio, relative to approximately 600 patented inventions, included over 3,300 patent applications and patents as of December 31, 2019, of which 88% comprising patents (granted by 38 patent offices).

A significant aspect of patent activities refers to the high number of patents stemming from partnerships with Universities and research institutes: 12 % of patented inventions are the result of these partnerships.

Moreover, TIM is part of a patent pool<sup>2</sup> on Long Term Evolution, with a patented invention essential for the standard. The patent pool acquired new participants during the year (bringing the current total to 25 license-holders) and granted licenses to 48 companies.

### **In Brazil**

[GRI 103-1: Management Approach] [GRI 203] [GRI 103-2: Management Approach] [GRI 203] The “Architecture & Innovation Technology” department<sup>3</sup> is responsible for Research and Development (R&D) activities of TIM Participações; its main responsibilities are defining the technological innovation of the network and information technologies, determining the evolutionary needs for new technologies and devices, converging architectural guidelines and strategic partnerships, so as to exploit new business models and guarantee the evolution of the network infrastructure in line with the business strategy.

In December 2019, the Architecture & Innovation Technology function comprised 52 people including telecommunications, electrical, electronic and IT engineers and other positions with professional profiles, skills and

<sup>1</sup> Intellectual property rights.

<sup>2</sup> This is a consortium of at least two companies that agree to exchange patent licenses relative to a given technology.

<sup>3</sup> Innovation Architecture and Technology, in the context of the Chief Technology and Information Office (CTIO).



expertise that cover all network knowledge areas, meeting innovative requirements and supporting research and development activities.

An important result was the creation of TIM Lab a multifunction environment focused on innovation, able to assess technologies, products and innovative services, certify their functional efficiency and performance, and develop new models and configurations, consolidating the innovation flow. TIM Lab has a strategic role in supporting credibility testing (service validation tests), inspections and proof of concepts, working with leading suppliers and technology partners, sharing knowledge, technological infrastructure for interoperability tests, evaluating resources and defining technical requirements; in synergy with the R&D department, it facilitates innovation and promotes collaborations with universities and research institutes.

[\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) In January 2017, a new office was opened for the TIM Lab Innovation Center at the CEO's head office in Barra da Tijuca, in the State of Rio de Janeiro: boasting a surface area of 650 m<sup>2</sup> that can accommodate over 60 people. This new site can be used by engineers and researchers, and as an innovation space open to new opportunities, steering innovation on the Brazilian telecommunications market and featuring as a national leader for R&D activities<sup>1</sup>.

In 2019, over 140 validation processes were carried out on new software, functionalities, solutions, technologies, services and devices. TIM Participações invested more than 2.7 million reais in instruments, infrastructure and services, and additional investments for over 10 million reais have been planned for the 2020-2022 period.

The "Architecture & Innovation" department continues to work on projects and initiatives aiming to ensure the evolution of the business of TIM Participações 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 macro groups:

- new generation networks;
- with positive impacts on the environment and company;
- future Internet applications;
- Open Lab Initiatives.

#### [\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) **New generation networks projects**

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

- a reduction in LTE<sup>2</sup> implementation costs;
- an increase in LTE coverage and enabling of the Carrier Aggregation strategy, improving customer experience by means of a higher "throughput";
- the best indoor coverage. In addition to increased coverage, use of the 850/1,800/2,100 MHz bands could increase capacity in cities already covered by the LTE 2.6 GHz band, at limited additional cost.

In this scenario, over 96% of current LTE terminals are compatible with 1,800 MHz, 2,600 MHz bands and other available bands. Therefore, the implementation of the multilayer LTE is still an excellent strategy benefiting from the dissemination of devices.

The implementation of the LTE layer at 700 MHz has continued to improve the increase in coverage and penetration in closed environments significantly, promoting LTE at a national level and consolidating the leadership of TIM Participações in LTE. The actual roll-out will observe the rules of the EAD<sup>3</sup>, in order to manage spectrum cleaning and avoid interference with TV broadcasting services. 86% of the current user base of LTE devices of TIM Participações is enabled for the 700 MHz band (December 2019).

At the end of December 2019, 2,313 cities had LTE coverage at 700 MHz, i.e over 93% of the urban population; spectrum cleaning was completed in June 2019 in all Brazilian cities, in order to have a 700 MHz band. Over 3,300 cities covered by TIM Participações in the 700 MHz band are expected by the end of 2022, according to the 2020-2022 business plan.

<sup>1</sup> TIM Lab of TIM Participações also works with TIMLab Italy, that has over 50 years of experience and some 1,000 employees, including engineers and researchers, over 3,000 patents registered and more than 12,000 m<sup>2</sup> of floor space

<sup>2</sup> Long Term Evolution.

<sup>3</sup> Entidade Administradora do Processo de Redistribuição e Digitalização de Canais de TV e RTV, (management of the entity of the process to redistribute and digitalize TV and RTV channels).

IP Multimedia Network Evolution. In 2017, TIM launched VoLTE (high definition voice over LTE services on the market, enabling call services without the need to pass via legacy circuit switching technology, also benefiting the use of 100 approved smartphone models. In late December 2019, this service was enabled in 3,401 cities (Geomarketing report data).

For Network Function Virtualization (NFV) and Software Defined Networks (SDN), some initiatives were developed, such as the creation of the NFV program of TIM Participações, that included four work teams (according to the NFV logical domains and areas of expertise), in order to determine technical requirements, infrastructure projects, operating tables of VNF, open laboratory specifications and the reference architecture conforming to the NFV ETSI standard<sup>1</sup>. In this context, the VAS<sup>2</sup> Messaging Consolidation was the first VNF<sup>3</sup> implemented on the commercial network, followed by the IMS platform and roaming services, according to the NFV principle. In December 2019, other network functions, such as PCRF (Policy and Charging Rules Function<sup>4</sup>) DRA (Diameter Routing Agent<sup>5</sup>), STP (Signaling Transfer Point<sup>6</sup>), Roaming Platform, HSS-FE (Home Subscriber Server Front End)<sup>7</sup> and EPC<sup>8</sup>, were operating as VNF. Different approaches to SDN were also covered in preliminary studies, allowing for complete orchestration and the definition of the cloud environment. A reduction in CapEx/OpEx<sup>9</sup>, the quicker time-to-market, optimization and innovative actions are the main drivers for the adoption of these new network approaches. As an alternative to hypervisor VMWare<sup>10</sup>, TIM Participações acquired the Red Hat Openstack Suite as the VIM for its NFV-I. This acquisition will improve the reach of data centers up to the EDGE, enabling new services based on Edge Computing<sup>11</sup> and MEC<sup>12</sup>.

### [GRI 103-3: Management Approach] [GRI 203] Projects involving a reduction in energy consumption

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<sup>13</sup>” solution, optimizing the network resources and costs<sup>14</sup>. Another factor behind this initiative concerns coverage and timing issues relative to regulatory obligations (many cities will have to have a 2.6 GHz spectrum coverage in a short period of time, along with the implementation of numerous sites). Initially, tests were conducted in a controlled environment (Innovation Lab) and the solution was based on MOCN<sup>15</sup>, standardized by the 3GPP<sup>16</sup>. A second test was then launched to evaluate other technical issues. At present, this is the largest RAN sharing agreement in the world, and provides 4G services to main Brazilian cities.

<sup>1</sup> European Telecommunications Standards Institute.

<sup>2</sup> Value Added Services.

<sup>3</sup> Virtual Network Function.

<sup>4</sup> PCRF (policy and charging rules department), which supports the identification of service data flows, the adoption of policies and charges based on the flow. It offers a complete solution enabling a supplier of new generation services to offer several use scenarios to better check services and align inflows with their own resources.

<sup>5</sup> DRA (diameter routing agent) is a fundamental element of the 3G or 4G network (like LTE), that provides real time routing functions to ensure that messages are routed via the correct elements of a network.

<sup>6</sup> STP (signal transfer point) is used in an SS7 network (standard set of signaling protocols used in Public Switched Telephone Networks worldwide to handle calls) or CC7. STPs transfer SS7 messages between interconnected nodes (terminal signaling points), based on information contained in the fields of SS7 addresses.

<sup>7</sup> The front-end of the domestic user server (HSS-FE) has a central role in managing user data in the Evolved Packet Core (EPC) subsystem and the IP Multimedia Core Network (IMS).

<sup>8</sup> The fundamental duty of the Evolved Packet Core is to provide IP connectivity to the terminal both for data and voice services.

<sup>9</sup> Capital expenditures and operational expenditures.

<sup>10</sup> A hypervisor, also known as a virtual machine monitor, is a process that creates and manages virtual machines (VM). A hypervisor enables a host computer (computer or other device connected to a computer network that may offer resources, services and information applications to users or other network nodes)) to support several VM guests (software component of a virtual machine, an independent element of an operating system and the relative software and associated information) sharing its resources, such as memory and processing, virtually.

<sup>11</sup> This is the processing of information at the network edges, where data are produced. The main benefits from using edge computing technologies are a reduction in processing latency, that enables real time responses, and band saving, sending information already processed and thus of smaller dimensions to the data center.

<sup>12</sup> Multi-access Edge Computing - connection technology used in 5G networks.

<sup>13</sup> Sharing of the “Radio Access Network”.

<sup>14</sup> The infrastructure costs are mainly associated with the introduction of new radiating systems and other electronic components, infrastructure of passive sites and transport networks; therefore, the sharing of resources supplied by LTE RAN means a significant optimization in costs for telecommunications operators.

<sup>15</sup> The Multiple Operator Core Network (main network for several operators), enables spectrum sharing; with continual traffic requests towards 4.5/5G, MOCN technology and spectrum sharing are important enabling factors, considered by the regulatory authorities.

<sup>16</sup> The 3rd Generation Partnership Project.



The RAN sharing agreement enables TIM to promote the dissemination of LTE in the Brazilian countryside, effectively access and back haul<sup>1</sup>. At present, the 4G Sharing RAN is based on three national partners, extending the benefits and efficiency of this technical model.

Following continual testing and the consequent enabling of energy saving functions and solutions, mainly during 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%.

**[GRI 103-3: Management Approach] [GRI 203] New generation network projects, future Internet applications, positive impacts on the environment and company**

IoT - In 2018, TIM Participações launched the first NB-IoT<sup>2</sup> commercial network in South America, in the city of Santa Rita do Sapucaí, to develop innovative services together with INATEL (Telecommunication National Institut) University, a leading research center in Brazil. TIM also enabled NB-IoT coverage in 2018, in the cities of Itajubá, in conjunction with UNIFEI (Universidade Federal de Itajubá), and Rio de Janeiro. TIM Participações is aware that the mass introduction of the IoT can significantly change the mobile telephone market, as it drives the creation of services and - among others - is a potential tool for agricultural applications, vehicle connections, traceability solutions and social/health assistance.

Two important goals were achieved in 2019, and namely the activation of an E-SIM (Embedded SIM<sup>3</sup>) platform, and the acquisition of a IoT/M2M platform. These two infrastructures will enable TIM Participações to adopt an E2E M2M<sup>4</sup>/IoT system, allowing TIM to promote important innovations and new products, aimed at using the potential of the IoT in different vertical sectors.

Agrobusiness - Since 2018, TIM Participações together with Nokia and BR Digital has been focusing on the potential agrifood business in Brazil, offering connections in rural areas (not only for company applications, but also the digital inclusion of agrobusiness employees and residents in small towns). One of the projects delivered in April 2018 to Jalles Machado, an energy group in the city of Goianésia, replaced manual appointments with mobile ones, improving communication between the office and field; plus computers on board agricultural machines mean that information can be managed in real time. The project integrates 812 smartphones and 1006 company lines, with 650 smartphones for appointments in the field. In 2019, TIM consolidated its positioning in relation to vertical agriculture<sup>5</sup>, by creating the ConectarAgro agrosystem (<https://conectaragro.com.br/>) that brings together TIM, suppliers of solutions for the agroindustry and suppliers of telecommunications solutions.

5G - In April 2018, the "Architecture & Innovation Technology" Department completed its studies and tests on interference in the city of Guaratiba (State of Rio de Janeiro) in the 3.5 GHz band, considered to be the band at the forefront of 5G. The aim was to demonstrate that IMT (International mobile Communication) in Brazil, in the 3.5 GHz band, and the reception of the fixed satellite service (FCSS), in the adjacent C band (3625-4200 MHz)<sup>6</sup>, can co-exist without any limitation on the use of 3.5 GHz. During the first half of 2019, ANATEL planned rules for the use of 3.5 GHz and an auction for the first quarter of 2020 concerning the 3.5 GHz e 2.3 GHz bands.

In June 2019, TIM Participações selected three cities, Florianópolis, Santa Rita do Sapucaí and Campina Grande to test the 5G technology. In September, TIM set up a TIM 5G Home, in particular during HackTown 2019, the innovation festival sponsored for the first time by TIM Participações, which is held each year in Santa Rita do Sapucaí (in the State of Minas Gerais). With a specific ANATEL license, the TIM 5G home demonstrates accessible solutions on an interactive basis (with

<sup>1</sup> In the telecommunications sector, a back haul network (return loading) or return network is the portion of a hierarchical network that includes intermediate connections between the central network (or core or backbone), and small subnetworks at the "edges" of the hierarchical network.

<sup>2</sup> Narrowband Internet of Things (NB-IoT) is a standard LPWAN (Low Power Wide Area Network) radio technology developed by the 3GPP for communication to a wide range of mobile devices and services.

<sup>3</sup> This is a minuscule chip embedded in the device (in particular smartphones), which is extremely compact compared to conventional telephone SIMs.

<sup>4</sup> Machine to Machine means the technologies and services that allow for the automatic transfer of information from one machine to another, with limited or no human interaction.

<sup>5</sup> These are crops above ground, in closed greenhouses, that grow to height on several, automated, climate-controlled levels, with reference to large plants. These systems are 75% more productive than traditional field crops, and use around 95% less water. Plus, they have no geographic constraints, as they can be used in urban areas, offering locally grown fresh produce.

<sup>6</sup> Mainly the application of only TV reception (TVRO).

the arrival of 5G), regarding health, education, safety, entertainment and games, i.e. the context in which we live and work; some demonstrations have been developed in conjunction with Ericsson, Qualcomm, Cisco and Intel, and also with ABB, Intel and LG.

#### [GRI 103-3: Management Approach] [GRI 203] IoT Open Lab

In 2017, TIM Participações took part in the Telecom Infra Project (TIP), an initiative set up by Facebook, SK Telecom, Deutsche Telekom, Nokia, Intel and other companies, with the aim of creating a new approach to constructing and implementing the telecommunications network infrastructure. TIM Participações has transformed TIM Lab into the first TIP Community Lab in Latin America, for use by TIP members to create universal standards relating to solutions (initially for transport networks, the Open Optical Packet Transport work team) in order to overcome the challenges linked to the interoperability of the different providers. This initiative is an open, cooperative approach to developing and testing out new technologies and solutions, such as whitebox<sup>1</sup> and disaggregated devices, for back haul architectures and data centers.

In 2018, TIM Participações also took part in a new work team inside TIP, together with Vodafone and Telefonica, called DCSG (Disaggregated Cell Site Gateway<sup>2</sup>). This project is an opportunity to define a set of common requirements for operators, and coordinate with companies that produce devices, that have greater, more flexible capacities and are cheaper. In June 2019, supported by Facebook, TIM Participações organized a Proof of Concepts of the DCSG solution of IPInfusion and Core EDGE suppliers and TIP members, in order to demonstrate the main functions of the solution.

## Digital inclusion

[GRI 103-1: Management Approach] [GRI 203] The 2019 materiality analysis confirmed geographical and social digital inclusion in Italy and Brazil as a material topic. Amongst other things, the ICT<sup>3</sup> sector offers both potential to allow everyone to participate in social and economic life and solutions for a better future, saving time and natural resources<sup>4</sup>.

### Geographical digital inclusion

#### [GRI 103-2: Management Approach] [GRI 203] The 5G technology<sup>5</sup>

At the end of 2018, the assignment of 5G frequencies in Italy, available until 2037, was completed.

This new technology goes beyond a simple evolution of 4G performance, aiming to create an entire innovative network and service platform capable of meeting the future demands of the 2020 digital society<sup>6</sup>.

According to the ITU-R IMT.2083 (IMT Vision) Recommendation<sup>7</sup> of 2015, the 5G system includes a number of business scenarios that can be grouped into three main macro-categories (each characterized by different requirements) summarized in the following figure (scenarios for IMT use for 2020 and beyond).

The use scenarios are:

- *Enhanced Mobile Broadband (eMBB)*, for video transmission and Gbps<sup>8</sup> communication (enabling *Augmented/Virtual Reality*);

<sup>1</sup> Software not associated with hardware.

<sup>2</sup> Based on an open, disaggregated architecture, the new DCSG is designed for the economic back haul of mobile site traffic in existing mobile networks and in emerging 5G infrastructure.

<sup>3</sup> Information & Communication Technology.

<sup>4</sup> According to "McKinsey Global Institute 2018/smart cities: digital solutions for a more liveable future" it also produces less waste.

<sup>5</sup> Acronym for fifth generation mobile technology and standards.

<sup>6</sup> 5G will be introduced gradually because, in the first phase (*early drop*), 5G radio access will be "supported" by the LTE (*Long Term Evolution*) network, which will play an integral and subordinate role.

<sup>7</sup> *International Telecommunication Union-Radiocommunication Sector, International Mobile Telecommunications*.

<sup>8</sup> Giga byte per second (over one billion bytes of information per second).

- Ultra Reliable Low Latency Communication (URLLC), typical of many industry needs and the most demanding vertical markets - self-driving cars energy management, robotics - and mission critical public safety applications;<sup>1</sup>
- *Massive Machine Type Communication* (mMTC), which enables object connectivity, *IoT (Internet of Things)* and *Smart Cities*.

Over the next few years, 5G will be the revolution that everyone can experience in their daily lives. Its field of application is much wider than the technology that came before, thanks to the current scenarios in which it will be used, which are characterized by:

- sensors available, at competitive costs, able to decipher physical information into digital, transforming the objects around us into digital data;
- the most widespread connectivity allowing any object to transfer and receive data at any time;
- artificial intelligence technology allowing sophisticated processing of large amounts of information.

Main applications will target:

- the automotive and transport sector:
  - the area of connectivity between vehicles and between vehicles and infrastructures, aimed at increasing safety, saving energy and reducing traffic;
  - *infotainment*<sup>2</sup> connectivity, where large volumes of data can be transmitted on the move (e.g. GPS<sup>3</sup>, parking sensors, voice commands, guidance systems and assisted braking);
  - *self driving* and connected cars which - thanks to a system able to receive all the information about the surrounding environment - can be remotely controlled and driven;
- industry 4.0, namely:
  - digital transformation of the industrial world with the adoption of robots, three-dimensional printers (3D printing) and other complex tools;
  - 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 new media world, with changing use habits and new formats, including virtual and augmented reality solutions, which require new transmission capabilities;
- 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 which can ensure “live” connections with a better video quality without complex instruments, thanks to a greater bandwidth availability, combined with a reduced latency.

TIM's 5G is already available with services for citizens and businesses in Rome, Turin, Florence and Naples with speeds of up to 2 Gigabits per second. Recently the cities of Genoa, Brescia and Monza have been added; Milan is a "5G ready city". The next cities to be covered by the 5G service will be Bologna, Verona, Ferrara, Matera and Bari. By 2021 coverage will comprise 120 cities, 200 tourist destinations, 245 industrial districts and 200 specific projects for large enterprises.

5G system implementation must be done in compliance with energy efficiency constraints (measured in *bit/Joule*) since, according to the ITU IMT-Vision recommendation (M.2083), energy consumption of the new system must be appropriately monitored and “not greater” than that of existing networks. With a view to this, TIM is already assessing the energy consumption of new radio base stations in light of eMBB, to ensure the increase in occupied bandwidth (up to 100 MHz) is not accompanied by a proportional increase in consumption.

<sup>1</sup> Vertical markets are linked to a specific industrial sector and defined by end customer type (not product type). Meeting the needs of vertical market customers means providing them with added value in terms of expertise and market-specific best practice, as well as having a detailed understanding of customer needs and related market development factors.

<sup>2</sup> A word of Anglo-Saxon derivation that merges the words *information* (information) and *entertainment* (entertainment). Car *infotainment* is the set of multimedia functions at the service of a car.

<sup>3</sup> *Global Positioning System*.

[GRI 103-2: Management Approach] [GRI 203-1] [GRI 203-2] **TIM's ultra-broadband network**

Starting from 2012, TIM has been developing its ultra-broadband<sup>1</sup> network with the aim of bringing high speed connectivity services with fiber optics to most of the Italian territory and contribute to the economic growth of the country.

TIM chose to implement two different NGAN network architectures for the supply of high speed services with fiber optics:

- FTTC (Fibre To The Cabinet) architecture. The fibre optic cables leave the exchange and go to the street cabinet, where an active device is installed (ONU) that transfers data traffic on twisted double copper cables to reach the modem/routers at the customer's site. The FTTC network, thanks to eVDSL<sup>2</sup> technology, can reach speeds of 200 Megabits per second and, with further technological developments, possibly up to 300 Mb/s;
- FTTH (Fibre To The Home) architecture. The fibre optic cables leave the exchange and arrive directly inside apartments (through the so-called "vertical"). At the customer site, an active device is installed (ONT) that transfers data traffic from the fibre optics to the modem/routers. The FTTH network technology GPON<sup>3</sup> can reach speeds of one gigabit per second and is developed in areas already covered by FTTC technology, so as to ensure to customers choice in terms of connection speed.

### La rete NGAN di TIM

Dal rame alla fibra con soluzioni complementari e scalabili!



In order to deal with the digital divide that has arisen in the so-called marginal areas of Italy, which would otherwise remain excluded from the mainstream plans of telecommunications operators due to the low profitability of investments, between 2005 and December 2019, TIM implemented a programme of investments allowing ADSL coverage (gross<sup>4</sup> coverage > 70%) to be provided for 7,672 municipalities in total.

[GRI 103-3: Management Approach] [GRI 203-1] As of December 2019, TIM, in Italy, had activated the ADSL service in around 9,700 exchanges, including 8,580 with optic fiber carriers. Alongside its plan to extend coverage, TIM has launched an additional plan to expand the active network<sup>5</sup>, where necessary, to guarantee full usability of the service by customers and the development of digital inclusion

<sup>1</sup> Also known as NGAN, *Next Access Generation Network*.

<sup>2</sup> Enhanced Very High-speed Digital Subscriber Line.

<sup>3</sup> Gigabit Passive Optical Network.

<sup>4</sup> Official TIM coverage data refer to the technical coverage of the telephone population (in terms of 64 kbit/s equivalent lines) gross of areas that cannot technically be served due to the characteristics of the copper access network (presence of digital devices such as multiplexes - MPX, Remote Concentration Units (RCUs), Multiplexes with Fibre Optic Backhauling - MD48, excessive distance from the exchange, etc.).

<sup>5</sup> The plan consists of actions to ensure full availability of the service by customers by expanding the capacity of equipment used, in terms of both user ports and bandwidth available on the Internet. The technical term for this is desaturation of DSLAM equipment, performed either in advance or once specific broadband quality and availability thresholds are exceeded.

[GRI 203-1] [GRI 203-2] The following table shows the percentages of coverage as of December for the past three years.

Indicators	2019	2018	2017
LTE Coverage (*)	>99	99	>97.5
Next Generation Plan coverage (fixed telephony) FTTX (**)	80.5	79.8	77.0
of which FTTH	16.2	13.7	9.2

(\*) The percentage refers to the residential population. Coverage values are subject to change based on ISTAT and urbanization updates. At the end of December 2019, the number of municipalities reached was 7,611.

(\*\*) FTTX stands for Fibre To The X, where X can be C for cabinet, H for house, B for building or E for exchange. The percentage is determined by the ratio between the number of properties connected with “cabinets” reached by access optical fibers (or which can be served directly from an exchange if within acceptable distances) and the total number of properties that have or have had active telephone lines in the past (includes a small percentage of FTTH related only to the city of Milan).

[GRI 103-3: Management Approach] [GRI 203] [GRI 203-1] [GRI 203-2] At the end of December 2019, TIM’s FTTX ultra-broadband network covered:

- 2,945 municipalities, with FTTC fibre technology service;
- 124 municipalities, also with FTTH fibre technology service.

[GRI 103-2: Management Approach] [GRI 203] [GRI 203-1] [GRI 203-2] The principal objectives to increase Italian geographical digital inclusion, for 2022, are shown in the following table.

Indicator	Unit of measurement	Target 2022
Next Generation Plan coverage (fixed telephony) FTTC	%	81%
Next Generation Plan coverage (fixed telephony) FTTH	%	30%

In the closing phase of this report, TIM SpA is defining the coverage objectives of 5G technology in the coming years; these objectives will be communicated at a later date.

[GRI 103-1: Management Approach] [GRI 203] A focus on innovation and investments in new infrastructure and technologies also characterizes TIM’s action in **Brazil**. The development of fixed and mobile Ultrabroadband (UBB) networks on the one hand and 5G on the other have led to an unprecedented acceleration in the telecommunications sector. This is a phenomenon that is opening up new possibilities, and that is profoundly changing people’s habits, as they become increasingly accustomed to living in a smart and connected world.

[GRI 103-2: Management Approach] [GRI 203] TIM has invested nearly 5.4 billion euros in **Brazil** over the last 5 years, with a focus mainly on new generation infrastructure construction and actively contributing to the modernization of the country.

[GRI 203-1] In order to improve the reach and accessibility of TIM Participações mobile broadband, and as part of the technological evolution outlined in the most recent Industrial Plan presented to the financial community, 4G coverage is set to be extended (compared to the LTE<sup>1</sup> 700 MHz bandwidth), with the expansion of VoLTE<sup>2</sup>, an increase in the number of bio-sites installed, and support for the launch of the fiber-optic network alongside the ultra-broadband plan.

<sup>1</sup> Long Term Evolution.

<sup>2</sup> VoLTE (Voice over LTE) is a technology that allows you to make voice calls on the LTE (4G) network.

[GRI 203-2] TIM Participações supports the development of technological partnerships for initiatives focused on social and business applications. Through its open innovation program, the company invests in initiatives designed to promote the acquisition and exchange of knowledge with universities; the project with the Pontifical Catholic University of Rio de Janeiro (PUC) on blockchain is an example of this, as is that with Inatel<sup>1</sup> for the development of a smartcity program based on Nb-IoT technology<sup>2</sup>. TIM Participações is also working more closely with the Cubo Itaú innovation center to promote co-creation with startups, and has launched a partnership with the Open D'Or initiative for health research. The company plays an active role in the development of the IoT ecosystem for rural, smartcity and health solutions, and is taking part in four IoT pilot projects selected by BNDES (Banco Nacional de Desenvolvimento Econômico e Social)<sup>3</sup>. In addition, the company is also a mentor in the Embrapa initiative<sup>4</sup>, for the Ideas 4milk program.

TIM Participações is dedicated to finding solutions for flexible rural connectivity, and has developed a series of MVPs<sup>5</sup> with CPQD<sup>6</sup> in rural and industrial areas to test Nb-IoT technology; it has formally received a national innovation award for these.

In addition, the company has also recently participated in the TIP - Telecom Infra Project, the goal of which is to develop innovative and sustainable solutions for the expansion of the telecommunications infrastructure worldwide, working with telecom operators, suppliers and integrators in collaboration with Facebook. Today, via TIM LAB, the Network function is home to one of the seven TIP Community Labs that exist worldwide, and has performed tests on optical solutions with a view to facilitating the acceleration of transportation networks, enabling the connection of cellular antennas.

In 2019, TIM Participações supported discussions regarding 5G technology using the concept of Living Labs, a physical space where users, public and private players and the academy can come together to discuss, share knowledge and collaborate in order to create the next generation of 5G solutions; this new technology will be used to fill the gaps that still exist with regard to digital inclusion, providing solutions that improve daily life and well-being in a host of sectors, including health, safety, city "management" and rural manufacturing.

[GRI 103-2: [Management Approach] [GRI 203] [GRI 203-1] [GRI 203-2] The principal objectives to increase Italian geographical digital inclusion in TIM Participações for 2021 are shown in the following table.

#### Brazil 2022 Targets –Geographic Digital Inclusion

Indicator	Actual figure 2019	Target 2021
FTTH (millions of families)	2.3	➤ 4

The target related to 4G coverage set by TIM Participações is of 3,735 cities (94.86% of the urban population) at the end of 2020 and of 3,936 cities (95.64% of the urban population) at the end of 2021. The adjustment of the 2020 target was determined by the update of the perimeter of coverage and budget strategy of the technical network. At the end of 2019, 4G coverage reached 94% of the urban population, or 3,477 cities.

## Digital inclusion in society

### [GRI 103-2: Management Approach] [GRI 203] Operation Digital Risorgimento

Operation Digital Risorgimento is a digital education project for Italy, designed to drive the digitization of the country, and promote the adoption of concrete tools by a growing number of citizens. The initiative complies with the Digital Republic Manifesto promoted by the Special Government Commissioner for the fulfillment of the Digital Agenda, and has obtained the support of the Italian representative of the European Commission and of ANCI<sup>7</sup>. It involves more than 400 trainers, who will be tasked with developing a program of 20 thousand hours of lessons, which will be delivered through training courses in all 107 Italian provinces, with a view to teaching more than a million people about the internet and the potential

<sup>1</sup> Instituto Nacional de Telecomunicações (National Institute of Telecommunications).

<sup>2</sup> Narrowband - Internet of Things.

<sup>3</sup> Banco di Sviluppo Economico e Sociale (Bank for Economic and Social Development), the leading development bank in Brazil.

<sup>4</sup> Empresa Brasileira de Pesquisa Agropecuária (Brazilian Agricultural Research Corporation), a Brazilian research corporation affiliated with the Brazilian Ministry of Agriculture.

<sup>5</sup> Most Valuable Player, i.e. the player who has achieved the best performance in a tournament or game.

<sup>6</sup> Centro de Pesquisa e Desenvolvimento em Telecomunicações ((the Brazilian Research and Development Center in Telecommunications).

<sup>7</sup> Associazione Nazionale Comuni Italiani (National Association of Italian Municipalities).



that this holds. The project will be rolled out against a backdrop that sees Italy still lagging behind in the European rankings for the use of digital services, despite the high level of infrastructure the country boasts; indeed, around 18 million citizens, 30% of whom are over six years old, have not used the internet in the last year, and one in four families is without an internet connection. Of these households, 58% state that they are not connected to the internet because they do not know how to use it, while 21% do not use it because they do not consider it to be of interest to them [source: Istat, citizens, businesses and ICT, 2019].

In autumn 2019, TIM launched the tour that mainly visits (and indeed, will continue to visit) municipalities with a population of between 10 and 60 thousand inhabitants, where the company's digital training courses are to be held. In each of these municipalities, the TIM mobile school is available to citizens (from 9.30 am to 7.00 pm from Monday to Friday, in the town square specified by the local authorities), constituting a digital culture desk and a team of TIM digital facilitators who offer ten short training sessions designed to help these people to discover the internet and its potential (with particular regard to services, entertainment and security). In the three weeks that follow, inhabitants of these municipalities will be able to take part in the classroom-based program (which consists of three two-hour modules, morning and afternoon from Monday to Friday), in order to become "citizens of the internet"<sup>1</sup>. The courses will mainly involve those people (most of whom are aged 50 and older) who have the greatest need to learn how to navigate online, communicate and make use of digital citizenship services; these include using "certified email" (PEC), changing their family doctor (GP) through the public digital identity system (Spid) or paying for a certificate through the pagoPA system.<sup>2</sup> During the second phase, citizens can take advantage of the services offered by local digital facilitators trained by TIM, who will transfer skills to the community and ensure the scalability of the program, by means of a multiplier effect. TIM has launched a dedicated toll-free number (800 860 860, calls from within Italy) where those interested can learn more about the project, follow the phases, find out about the municipalities involved and register for the classroom courses set to take place in the various locations. More information is available on the dedicated website, <https://operazionerisorgimentodigitale.it>.

#### [GRI 103-2: Management Approach] [GRI 203] AGCom decisions<sup>3</sup>

TIM's commitments in Italy, in terms of discounts and specific measures, essentially concerned the following categories of customers:

- deaf, blind and partially sighted people. In compliance with the resolution of the Authority for Communications Guarantees (AGCom) No. 46/2017/CONS, TIM has given both internet and landline concession offers to these customers<sup>4</sup>. These concessions never expire and once activated do not require any request for renewal, and are also reserved for the nuclear family in which the deaf, blind or partially sighted person lives (for further information regarding concessions, it is possible to contact TIM customer service 187 and 119). Assistance can also be provided for the deaf by contacting TIM customer service 187 and 119 with the Pedius app, available for Apple and Android, which uses voice recognition and speech synthesis technologies, transforming the voice of the operator into written text for the customer;
- people on low incomes who find themselves in a situation of "economic and social hardship". TIM reserves such concessions - established by AGCom<sup>5</sup> or by the Company on its own initiative<sup>6</sup> - for customers with an ISEE<sup>7</sup> family unit income not exceeding 8,112.23 €/year, for telephone use service in their primary residence (on the traditional RTG

<sup>1</sup> Employees of public bodies will be able to attend the courses that will be held two mornings a week.

<sup>2</sup> This is the electronic payment method designed to make the process of paying public bodies simpler, safer and more transparent.

<sup>3</sup> Autorità per le Garanzie nelle Comunicazioni (National Telecoms Regulator)

<sup>4</sup> [GRI 103-2: Management Approach] [GRI 203] In accordance with the aforementioned resolution, for:

- fixed telephony, for the benefit of deaf customers, is exempt from the telephone service subscription fee (Voice Offer), with 180 free monthly hours of internet (broadband ADSL connections) on the offer "by usage" already active on the line (the benefit was only available to customers who had activated a by usage offer before January 14, 2018). There is also a discount of 50% on the subscription to an additional internet offer or a discount of 50% on the subscription to voice+internet offers, as specified for blind and partially sighted customers (different offers in the TIM SMART HOME and FIBRE range);
- mobile telephony the TIM concessions guarantee a 20 Gb volume of data traffic and the sending of SMS Unlimited for deaf customers (TIM Easy SMS+GB), while, for blind and partially sighted customers, an offer consisting of unlimited minutes of voice traffic and a volume of data traffic of 10 Gb (TIM Easy VOICE+GB). These dedicated offers are on the tim.it websites: [tim.it/agevolazioni-per-non-vedenti-e-non-udenti/offerte-fisso](http://tim.it/agevolazioni-per-non-vedenti-e-non-udenti/offerte-fisso); [tim.it/agevolazioni-per-non-vedenti-e-non-udenti/offerte-mobile](http://tim.it/agevolazioni-per-non-vedenti-e-non-udenti/offerte-mobile).

<sup>5</sup> AGCom Resolution No. 258/18/CONS (already approved by AGCom 314/00/CONS and 330/01/CONS) provides for a 50% reduction of the subscription amount for the voice offer (9.44 euros/month VAT included) and a total of 30 minutes of free calls per month to national landlines and mobile phones. Once the free minutes limit has been exceeded, national calls to landlines and mobile phones are charged at the expected by usage prices for the voice offer (10 cents/min including VAT, without a connection fee).

<sup>6</sup> Customers holding social cards, in compliance with the Ministry of the Economy and Finance Decree of September 16, 2008.

<sup>7</sup> Indicator of the Equivalent Economic Situation.



network<sup>1</sup>). The concession is valid for the same duration as their ISEE certificate (15 January of the year following issue) and the request must be renewed annually;

- “social card” holders. On its own initiative, TIM gives these customers a reduction on the telephone service subscription amount (14.69 euros/month including VAT). The benefit is valid for one year and is automatically renewed on 1 January of each year. In this case, these benefits cannot be combined with each other and the customer can request only one<sup>2</sup>.

In addition, TIM guarantees to support customers residing in areas affected by natural disasters (seismic events, floods), ensuring business continuity both in the phase of emergency management and in the medium/long term, to protect their needs.

[GRI 103-2: Management Approach] [GRI 203] [GRI 203-2] In Brazil, TIM Participações has continued to promote commercial offers to encourage the spread of the mobile web, particularly among the poorer classes. This relates to offers with reduced rates, particularly suited to promoting the broadening of sociocultural digital inclusion, for example, INFINITY WEB, LIBERTY WEB and LIBERTY WEB Rural (offer in the rural areas of the states of Rio de Janeiro, Espírito Santo, Paraná and Santa Catarina).

Furthermore, the Data Connections project - required by ANATEL of operators who purchased the frequencies detailed in the Bidding On Notes No. 004/2012 (e.g. Claro, Oi, TIM and Vivo) - guarantees cover of rural areas of Brazil, including public schools, in accordance with the division between operators. TIM guarantees this service in the states of Rio de Janeiro, Espírito Santo, Paraná and Santa Catarina (from January 2018 data download<sup>3</sup> at 1 mbps and upload at 256 kbps). In April 2019, TIM Participações received a new list of 4,455 public schools, which is its current commitment. In December 2019, the project was 80% complete. Further information is available at the link: [anatel.gov.br/consumidor/telefonica-fixa/atendimento-rural](http://anatel.gov.br/consumidor/telefonica-fixa/atendimento-rural).

<sup>1</sup> General Telephone Network.

<sup>2</sup> Customers holding social cards, in compliance with the Ministry of the Economy and Finance Decree of September 16, 2008.

<sup>3</sup> Megabits (million bits) Per Second. Kbps stands for kilo (thousand) bits per second.

## TIM people

### Commitment to our people

[GRI 103-1: Management Approach] [GRI 401] The materiality analysis conducted by TIM in 2019 confirmed the following material topics for the Group: managing labor relations and developing employment, health and safety of workers, together with skills development, reducing inequality and the ability to promote equal opportunities.

Digital skills are fundamental for the growth and strategic development of the entire sector. So, there is a need to continuously update training models to support digital transformation and the relative evolution of professional skills in the Company. To meet the challenges of the future, TIM requires continuous learning, operational and methodological flexibility and an innovative problem-solving approach to ensure results are quickly achieved.

In this scenario, TIM is recognized as a *knowledge company* with technological and market leadership thanks to the expertise and skills possessed by its people, where differences and sharing of knowledge represent added value to achieve the set business objectives.

At TIM, the enhancement of human capital serves to achieve the business aims through its human resources activities, which are described in the following paragraphs and always implemented in full compliance with the reference policies<sup>1</sup>. The conviction of the link between human capital and the achievement of business objectives led, among other initiatives by the Company in 2019, to the completion of an engagement survey, within the Domestic BU, an example of widespread and structured participation in which everyone's voice was heard and people's perception of their own experience of the Company was analysed.

The survey was completed by over 30,000 employees, 64% of the Company's people.

Four areas were investigated:

- **Strategy:** questions related to confidence in the future, competitive market strategy, prospects and priorities for action. Added to this is the individual's perception of their activity, objectives and performance as part of a larger picture;
- **Leadership:** questions about the effectiveness of management (top managers and managers/coordinators) in terms of their ability to define and implement the Strategic Plan, support people in achieving performance and development goals, listening to individuals' ideas, opinions and needs.
- **My job:** questions about the scale of engagement, both in terms of individual involvement and willingness to go beyond expectations, and in terms of individuals' satisfaction with their own work;
- **Innovation:** gathering opinions on the flexibility of the workplace and its ability to translate external stimuli and mistakes into concrete actions, with the right level of individual responsibility and with an inclusive approach.

Overall and on average, 50% of respondents were satisfied, 25% neutral and 25% dissatisfied with the survey. The same percentages were recorded within the individual thematic areas.

Following the survey, a set of actions on the different areas for hearings are planned to improve overall satisfaction, which will be monitored by the end of 2020 with a new engagement survey.

[GRI 103-2: Management Approach] [GRI 401] The Head of the Human Resources, Organization & Real Estate department is appointed by the Chief Executive Officer. The variable short-term remuneration policy (MBO) assigns the Head of Department objectives aligned with the strategy aimed towards Human Resources.

[GRI 103-3: Management Approach] [GRI 401] [GRI 403] The following table contains a summary of the main final figures and objectives for 2019 in TIM S.p.A. relating to the main HR themes.

<sup>1</sup> Code of Ethics and Charter of Values; TIM's Corporate Governance Principles; Environmental and Social Policies; the Group's Human Rights Policy; HRO Guidelines; Social Responsibility Policy on child labour, forced labour, health and safety, freedom of association and the right to collective bargaining, discrimination, disciplinary procedures, working hours and pay; Equal Opportunities Charter. In addition, the agreements reached with the trade union representatives and, in particular, the Collective Labour Agreements, are essential.

## TIM S.p.A

	2019 Target	Actual figure 2019
Accidents - Frequency rate*	6.00	6.42
Accidents per 100 workers	0.90	0.91
Training** - Coverage (percentage of employees who participated in at least one training session from the total population)	98%	94%

\* number of accidents per million hours worked.

\*\* In 2019, final figures were calculated from the average workforce number

#### [GRI 103-2: Management Approach] [GRI 401] [GRI 402] [GRI 404]

In the **Brazilian** scenario, TIM Participações has also developed and updated policies, programs and initiatives seeking to maintain the efficiency of the workforce and promoting a healthy, safe, productive and inclusive working environment for its employees. In a highly dynamic labour market and a very competitive business environment, the main focus of HR management practices has been:

- Training and skills development, with particular attention to operations especially in the commercial area
- Rewards and benefits, with greater accessibility by employees and customized policies
- Health and safety campaigns and policies

The Company has also sought greater staff involvement, creating a structured context and survey projects on involvement, as well as initiatives to promote an innovative culture and mentality (in line with TIM values), including management objectives.

In 2019, more than 9,000 employees took part to the Corporate Climate Survey, corresponding to 95% of the whole workforce.

The percentage of those who stated to be moderately satisfied was 93% (out of a 90% target), while the percentage of those fully satisfied was 81% (out of a 75% target).

Compared to 2018, there was an increase in General Favourability-general satisfaction of 6 percentage points in Learning and development-learning and development (up 12pp), Clarity and Direction - Transparency and Direction (up 9pp) and Trust in Leadership - trust in leadership (up 8pp).

Furthermore, structured communication plans and cascading activities focused on industrial plan and strategic objectives have been implemented quarterly, to ensure understanding of the strategic challenges and people commitment.

The Company also offered a new environment for people to express themselves, share initiatives and be communicators at TIM. The corporate social network (Yammer) promotes more collaboration, productivity and mobility for employees and brought together 8,000 users, with 188 digital groups created to exchange information about TIM projects, learning initiatives, organizational climate and other topics that bring people together by affinity.

Dealing with efficiency and process effectiveness issues, the organizational framework of the Company continued evolving to support strategy and contribute to company objectives. Therefore, a structured process re-engineering project has been confirmed in order to continue focusing on process effectiveness improvement, also introducing a hybrid set up of traditional “waterfall” process approach and more agile way of working in specific areas.

Furthermore, with its Job Architecture Project, TIM Brasil started developing specific analysis focusing on skills and job evolution on the TLC market, starting from the full understanding of its as is job architecture up to the definition of initiatives in recruiting, people development and rewarding policies that will be necessary to ensure alignment with emerging jobs, skills and profiles.

The Head of HR Department continued reporting directly to the CEO of TIM Participações.

The following table shows a summary of the main final figures for 2019 in the Brazil BU concerning the main HR themes.

#### Brazil BU

	2019 Target	Actual figure 2019
Accidents - Frequency rate*	0.88	1.09
Accidents per 100 workers	0.14	0.18
Training hours	613,581	363,623

## Concise figures<sup>1</sup>

[GRI 102-7] A summary of the numbers relating to the Group people can be seen in the table below:

	12/31/2019	12/31/2018	Changes
Italy	45,261	48,005	(2,744)
Abroad	9,932	9,896	36
<b>Total personnel on payroll</b>	<b>55,193</b>	57,901	(2,708)
Agency contract workers	5	0	5
<b>Total personnel</b>	<b>55,198</b>	57,901	(2,703)

Excluding agency contract workers, the Group's headcount has decreased by 2,708 people compared to December 31, 2018.

The changes per BU are detailed in the following tables.

	Recruited	Departed	Changes
Domestic	1,060	3,769*	(2,709)
Brazil	2,552	2,521	31
Other activities	1	31	(30)
<b>Turnover</b>	<b>3,613</b>	<b>6,321</b>	<b>(2,708)</b>

(\*) exits include 61 units from the Persidera company, ceded in December 2019.

<b>Turnover: detail by BU</b>	Recruited	Departed	Movement within Group +	Movement within Group -	Changes
Domestic	420	3,156	640	613	(2,709)
Brazil	2,551	2,520	1	1	31
Other activities	1	4	0	27	(30)
<b>Total</b>	<b>2,972</b>	<b>5,680</b>	<b>641</b>	<b>641</b>	<b>(2,708)</b>

<b>Terminations: detail by BU *</b>	Early retirement incentives*	Retirements	Dismissals	Voluntary resignations	Other causes
Domestic	2,485	52	55	272	231
Brazil	0	0	1,552	878	90
Other activities	2	0	0	2	0
<b>Total</b>	<b>2,487</b>	<b>52</b>	<b>1,607</b>	<b>1,152</b>	<b>321</b>

(\*) The total figure for people who left the Company does not include the 61 units from the Persidera company.

\* For further details see note "Employee benefits expenses" in the Group's Consolidated Financial Statements.

The high turnover recorded in Brazil is mainly linked to TIM store employees, who have, as for the Brazilian market in general, a high turnover. The company is working to improve this data by improvements to both the recruitment process and total compensation to increase staff retention.

The Group composition can be analysed according to various types of segmentation, as shown elsewhere.

For more information on the characteristics of Group personnel, please refer to the Appendix to this chapter, which, with respect to the requirements of the GRI Standard, gives these KPIs [GRI 102-8], [GRI 401-1], [GRI 401-3], [GRI 403-2], [GRI 405-2], [GRI 404-1].

As detailed later, and stated in the respective KPIs, policies for hiring, training and developing employees are implemented in the communities in which Group companies operate; furthermore, in reading the KPIs, note that:

<sup>1</sup> Unless otherwise stated, the data shown in the tables contained in the TIM People chapter relates to all the Group companies.

- [GRI 102-8] TIM does not use self-employed workers to carry out its business activities, although it is possible that, on an occasional basis, some consultancy type activities may be entrusted to self-employed professionals;
- [GRI 102-8] The Group's activities do not vary seasonally, hence changes in the workforce are correctly shown by the annual trends;
- [GRI 401-3a] All employees are entitled to parental leave.

## Gender balance

[GRI 103-1: Management Approach] [GRI 405] There is still a long way to go before true gender balance can be achieved in the telecommunications sector which, like all sectors where the main activity is strictly linked to research and development of new technologies, still continues to have a mainly male workforce. As women have embraced the world of work and, in a parallel fashion, scientific and technological culture and studies, their presence has gradually grown within companies, seeing them take on more important roles with higher salaries. The recent Italian Law no. 160 of December 27, 2019 (Budget Law 2020, in force since 1 January) modified the provisions of the so-called "pink share" (introduced in Law 120/2011) to protect gender equality in relation to representation on the administrative and auditing bodies of listed companies, increasing the share for the less represented gender, which has gone from at least a third to at least two fifths, and decreeing that it will apply for six consecutive mandates.

This is why at TIM

- TIM's Articles of Association will be amended to reflect the new allocation criteria for both the Board of Directors and the Board of Statutory Auditors, maintaining their applicability on an ongoing basis (and not only for six consecutive terms as provided for by the new regulations); it will not be necessary to change the composition of the corporate bodies that already reflect the new shareholding (6/15 on the Board of Directors and 2/5 on the Board of Statutory Auditors, respectively);
- the current development model pays close attention to ensuring that individual growth paths, starting from the time of employment, do not contain any restrictions relating to gender or age differences, and particular attention is paid to the female component, where skills and performance are equal;
- in 2018, within the skills model, the new "Diversity and inclusion" skill was introduced<sup>1</sup>;
- TIM has been a signatory of the "Manifesto for female employment" since 2017, promoted by "Valore D" and with a Company commitment to 9 types of activities related to the gender gap: recruitment policies, women and STEM disciplines, monitoring female presence in the Company, motherhood support, fatherhood support, agile working for goals and results, welfare policies, presence of women in positions of strategic relevance, updating of top management bodies on issues of gender.
- During 2019, the "Women's Project" was launched, the first phase of which, completed in 2019, was related to an important qualitative-quantitative hearing for all TIM women and also to coordinators of teams with men.
- In Brazil, in July 2019, TIM Participações created a new dedicated organizational unit, within the HR Department which started dealing with People Caring, Diversity and Inclusion Management activities in a more structured and focused way. Gender balance is one of the main focus of the area that has, as its mission, the objective to build and manage policies, programs and structured initiatives of diversity and inclusion, aligned with the strategy and organization culture and the principles of inclusion and appreciation of the contribution of each employee.

<sup>1</sup> For further information, refer to The skills model paragraph in this chapter.

[GRI 405-1] Members of the Board of Directors by age and gender	12/31/2019	12/31/2018	12/31/2017
<b>Total number of members</b>	<b>15</b>	<b>15</b>	<b>15</b>
Men < 30	0	0	0
Men 30-50	0	0	7%
Men > 50	60%	60%	53%
Women < 30	0	0	0%
Women 30-50	0	13%	13%
Women > 50	40%	27%	27%

[GRI 405-1] Members of the Board of Directors of TIM Participações by age and gender	12/31/2019	12/31/2018	12/31/2017
<b>Total number of members</b>	<b>15</b>	<b>16</b>	<b>16</b>
Men < 30	0%	0%	0%
Men 30-50	20%	44%	56%
Men > 50	66%	56%	31%
Women < 30	0%	0%	0%
Women 30-50	7%	0%	13%
Women > 50	7%	0%	0%

[GRI 103-3: Management Approach] [GRI 405] [GRI 405-1] **Members of the Group's professional categories by gender and age<sup>1</sup>**

	2019				2018				2017			
	Senior Managers	Middle Managers	Office Staff	Total*	Senior Managers	Middle Managers	Office Staff	Total	Senior Managers	Middle Managers	Office Staff	Total
<b>Total</b>	555	4,404	50,234	55,193	601	4,453	52,847	57,901	672	4,487	54,270	59,429
Men	82%	71%	62%	63%	83%	72%	63%	64%	84%	73%	63%	64%
Women	18%	29%	38%	37%	17%	28%	37%	36%	16%	27%	37%	36%
Up to 30 years	0%	0%	7%	6%	0%	0%	10%	9%	0%	0%	11%	10%
From 30 to 50	27%	34%	47%	46%	0%	13%	26%	25%	7%	15%	26%	25%
Over 50	73%	66%	46%	48%	90%	86%	64%	66%	93%	85%	63%	65%

\* The "workers" category is not shown as it consists of 1 unit; it is integrated into the "office staff" category.

The generational imbalance is mainly due to the Italian component that, due to adverse market conditions and in order to guarantee work for its employees, has in the past renounced generational renewal through major new hiring campaigns.

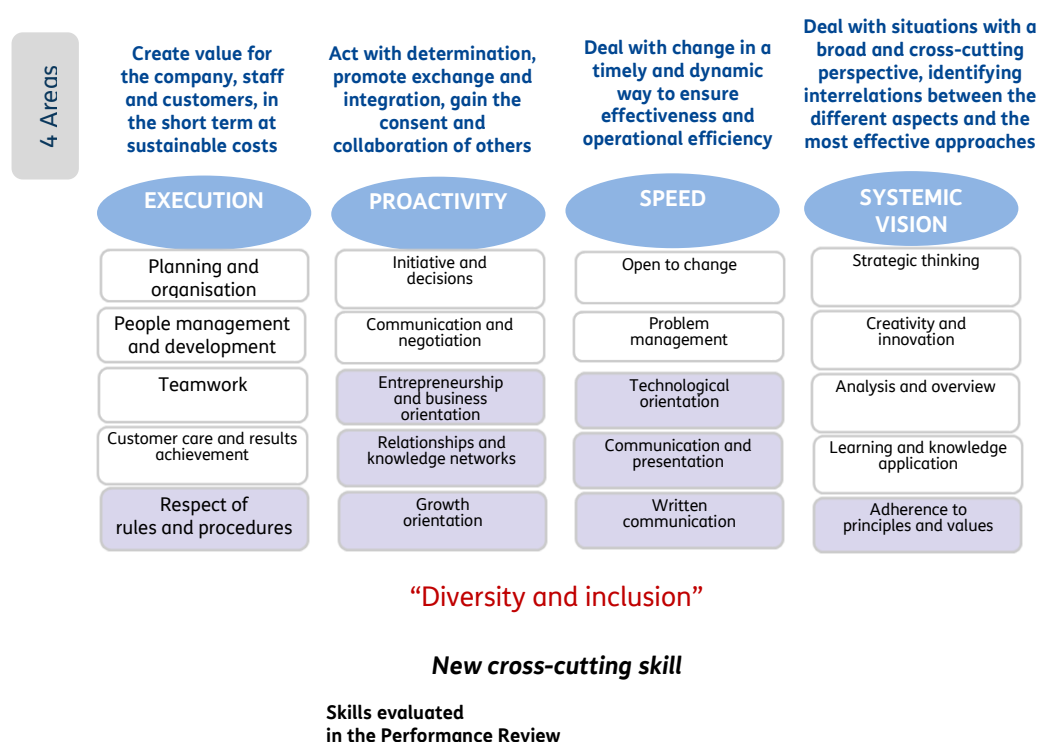
<sup>1</sup>In the years prior to 2019, age groups were reported: Up to 32 years "From 33 to 45"; "over 45". .



## New skills and development

### The skills model

[GRI 103-1: Management Approach] [GRI 103-2: Management Approach] [GRI 404] The Competence Model (see figure below), revised in the previous year, is a reference point for the various development processes.



Below are the main development activities that defined 2019:

- **Onboarding:** for welcoming new recruits to the Company (junior staff, professionals and managers), to speed up their “time to perform” and encourage engagement and “intent to stay”. In 2019 a further refinement based on feedback collected through monitoring tools (individual interviews, surveys) was carried out in order to increase the engagement of all involved.
- **Performance Management:** the process involves the evaluation of the goals and responsibilities of the entire workforce (managers, professionals and office workers) and is divided into five phases (assignment of objectives, evaluation, mid-year review, evaluator’s selection, feedback). In the first four months of this year the entire 2018 Performance Management process was concluded which involved the entire Domestic Business Unit (around 47,000 people): [GRI 404-3] 99.3% of people were evaluated by their direct superior and 82% stated that they received feedback from their superior. Performance Management 2019 was launched in May of that year with a phase of goal assignment, and was completed in June. At the beginning of September, the mid-year review phase started with the aim of giving people the opportunity to integrate the assigned objectives panel with new activities that emerged during the year. The phase ended at the end of October and involved 27% of people.

- **[GRI 404-2] Managerial Development:** with the aim of identifying and enhancing current and future Company managerial assets through a series of ad hoc processes and plans to assess the potential future usability of staff in managerial roles. In addition, to “protect” the staff base with skills which are critical and/or exposed to “market risk”, particularly young graduates hired by the Company in the last seven years, personalised paths with remuneration measures and valuable training initiatives have been defined and put in place. When filling organizational positions, TIM favors internal promotions identified using the succession planning system: each potential internal candidate’s suitability is assessed both for filling specific organizational roles and for their growth towards more complex roles. Recourse to the external market is made for specific positions of particular corporate interest, considered “core” but difficult to cover with internal resources.

**[GRI 404-3] Percentage of employees receiving periodic performance and professional development reviews**

	2019	2018	2017
Domestic BU	97.9%	99.9%	99.7%
Brazil BU	97.8%	98.0%	94.5%

- **[GRI 404-2] Self-engagement Map (SEM):** in 2019, this new assessment tool, that detects the level of engagement of the individual, has been applied to target TIM S.p.A. millennials (approximately 300 people) by registering a redemption level of 100%.
- **Skill Assessment:** is an online assessment tool, which makes it possible to focus – in a very short time and with large numbers – on a picture of the population in terms of skills, knowledge and motivation, useful for the timely detection of training needs in support of organizational changes and changes in business skills. Skill Assessment projects in 2019 involved around 1,500 people in the Chief Technology and Innovation Office and Procurement. Mapping of 5G and Cloud skills in the professional roles impacted by the new technology in both commercial and technical areas (involving about 2,800 people) has also begun.

**Development and skill activities in Brazil**

**[GRI 404-2] [GRI 404-3]** In 2019, in alignment with the Group approach and skills model, TIM Brasil implemented various programs and initiatives to support skills evolution, people development and employee engagement.

- **Onboarding programs:** Also considering the high turnover ratio of the Brazilian labour market, TIM Brasil focus on boarding processes has been highly maintained. In 2019, the “Evolution” training program introduced a new onboarding approach for sales force employees and managers as well.
- **Performance Management:** TIM Brasil implemented its 2019 performance management cycle, involving the whole company, starting introducing a customized and differentiated approach for different areas of the Company, and also introducing a new innovative tool “Mais Feedback” to promote and encourage continuous feedback culture.
- **Managerial Development:** TIM Brasil Succession system has started to be updated in the 4Q 2019 in order to align the high rate of managerial turnover and to evaluate readiness and development gaps. In 2019, TIM Brasil continued favoring internal managerial succession (around 60% of successions have been identified within the internal workforce) in alignment with its Recruiting Policies and before resorting to the external market.
- **Internal & External Recruiting:** TIM Brasil recruiting policy continued enabling internal recruiting opportunities as part of its HR practices, achieving in 2019 the goal of 40% of overall (employees + managers) vacancies coverage with internal workforce rotation.

## Training

[GRI 103-3: Management Approach] [GRI 404] [GRI 404-2] The transformation of the TLC industry towards digital company models, the technological evolution of infrastructure and market challenges linked to the development of new digital and innovative services are all part of an employment market undergoing profound transformation. At the TIM Academy, systems and methods of acquiring, disseminating, sharing and managing knowledge were strengthened and developed in 2019 to encourage organizational learning and improve skills in the changing technological and business context.

In August 2019 an Expansion Contract was signed with the trade unions and the Ministry of Labour, under which all TIM employees will be involved in a training and retraining plan broken down into individual projects, so they can acquire new and wider technical and professional skills.

### Training Program

One of the pillars of the People's Plan is a continuous training program to support the digitization process and update skills.

The main areas of activity are:

- Digital skills development
- Re-skilling and internalisation
- Management education
- Language training
- Institutional and corporate culture
- Training plan for young staff:

In keeping with the identified program definition drivers<sup>1</sup>, the TIM Academy platform, which is always available with multi-device access, presents learning plans that are customized to the person and role, with an open training offer with guided self-learning courses on specialised skills and professions.

### Digital skills development

TIM Academy developed a digital course on target population for all Group employees. The latter began by completing a self assessment of their knowledge and were then offered a training course certified by the EU's DigComp standard.<sup>2</sup> The project ended in March 2019, having trained about 30,000 people and awarded more than 15,000 "open badges".

The project "Technological and Business Scenarios - The Gigabit society" has been launched with an initial online module on the "agile" methodologies and new organizational logistics necessary for the effective management of innovation in the company.

### Re-skilling and internalisation

Wholesale Operations and Caring courses were introduced in order to adapt the role with a focus on strengthening new skills both in terms of technology/market/products/services and aptitudes required by market evolution.

Training projects have been launched to support the internalisation of the following roles: On-field technician in Wholesale Operations and ICT Control Room and customer supervision in Chief Revenue Office and Network & Service Engineering and application testing and management in Chief Technology and Innovation Office.

In addition, the mapping of 5G skills (Skill Assessment) in the professional functions and roles impacted by the new technology in both commercial and technical areas has been carried out.

<sup>1</sup> Which are:

- re-qualification and the enhancement of professional skills;
- development of digital skills of the entire company population;
- evolution of managerial profiles.

<sup>2</sup> The DigComp model is a common European reference framework for the development of digital expertise.

## Management education

- **[GRI 404-2] Coaching/Mentorship:** in-person and online coaching courses were launched to support managerial roles.
- **Online library:** all managers have access to various online libraries so they can make full use of videos, webinars and material from speakers from Italy and abroad on various topics.

## Language training

**[GRI 404-2] English@TIM:** Online language training courses personalised based on existing knowledge, aimed at helping people learn English, with a view to the digital transformation.

## Institutional and corporate culture

**[GRI 404-2]** This training aims to support the transformation of the organisation culture in line with the evolution of the social, environmental and economic context and at disseminating knowledge of the content required by the legal formalities. Institutional and mandatory training for all personnel thus aims to raise awareness and spread knowledge on content from the Compliance (on topics related to the Market Abuse Regulation and ISO 37001 on Anti-corruption), Health, Safety & Environment, Regulatory and Equivalence departments in addition to the Privacy and ITS Compliance (for topics related to the GDPR<sup>1</sup> and MIMIP<sup>2</sup> departments).

All personnel operating in the Security Department of TIM are trained and updated on national and European Community legislation and regulations governing company safety, and carry out their duties in complete compliance with all current company procedures and policies in force. Security personnel do not perform crowd control duties nor escort people or valuables, which is instead a task institutionally assigned to the police force.

## Training plan for young staff

In 2019 the training plan for young people hired (GRAD Program) was launched to improve knowledge of the Company and its processes as well as support the development of skills for certain roles. A similar course dedicated to the approximately 300 people under the age of 40 in the Company (TIME Program), to strengthen specialist skills and develop managerial skills.

## Training in Brazil

In Brazil, as for the domestic market, the purpose and the commitment of TIM Brasil in 2019 has been to support the evolution and the transformation of the Company toward the Digital Telco Model. Specific focus on new capabilities development as well as a strong effort in improving skills alignment in the operations departments has been developed throughout the year.

The approach has been to strengthen and spread digital and social learning approach as well as developing specific blended program for selected target and themes. The main development and training programs and initiatives are listed below:

*For all employees*

- **Key institutional and compliance issues:** all employees attended courses on key institutional and compliance issues, such as ethics, human rights, sustainability and environmental policies, safety, security and anti-corruption policies in alignment with Groups guidelines and international and national laws.
- **Digital Learning Roadmap:** individual and collective digital learning roadmaps have been developed, within a new online learning platform “Talent HUB Aprendizagem”. Starting from the understanding of development gaps analyses within the performance management system, the roadmap focuses on strategy driven themes such as digital mindset, new capabilities, innovation, accountability, customer experience, execution, collaborative networking thinking, change management (with around 100 “change agents” being trained to spread digital transformation throughout TIM).

<sup>1</sup> GDPR: general regulation on data protection.

<sup>2</sup> minimum privacy and security measures.

- **Vertical Contents:** specific physical training based on needs analysis results and on new capability needs. The programs involved different operational areas such as engineering, IT, Network, Marketing and Security. **TIM Talks:** The program is about a week of people development dedicated to all employees, with the involvement of human resources, business managers and external experts who offered employees across the country a unique self-development experience with workshops and lectures, particularly on business, inclusion & diversity, change culture, careers, leadership and human development. The program also offered dedicated content for employees' children, with lectures and workshops on careers, social networking and business. The program is led at a whole country level (15 locations around Brazil) and involved around 3.000 employees and managers for over 24,000 training hours around the country.

*Managerial development and education:*

- **Innovation Forum:** Specific program dedicated to all company managers, based on the big innovation challenges of the industry, and strongly related to the industrial plan drivers. The program involved more than 550 managers physically and around 250 in live streaming, with attendance of the main players of the TLC Market.

*For managerial and employee sales force:*

- **Evolution Program** (Consumer & Business): TIM stores learning journey, designed in an innovative way, with the concept of a great game. Providing greater engagement, new knowledge with a different 'footprint' and greater value for the company. Unique, personalized, and humanized experience. The program involved more than 800 sales agent and 260 store managers. In the last quarter of 2019 the program has been enlarged to the Business area.

*For young people joining the company:*

- **Young apprentice & stageur program:** TIM offered specific on boarding and physical and digital training activities to more than 300 among young apprentice and stageurs.

Furthermore, a major engagement initiative, Multipicando Ideas, has been confirmed and relaunched in 2019, involving employees offering training and development to other employees, acting as “multipliers” for specific themes related to business, procedures, tools and systems. The program involved around 120 “multipliers” and around 60 selected issues.

Finally, at TIM Brasil all employees attended courses on key institutional and compliance issues, such as ethics, human rights, sustainability and environmental policies, safety, security and anti-corruption policies in alignment with Group guidelines and international and national laws.

## Group training figures

[GRI 404-1] The tables below show Group training hours by professional category and gender. The appendix contains a comparative focus for 2018 and 2017 (TIM S.p.A. only), along with a breakdown at TIM Group level of the most important training strands (environment, health and safety, human rights, anti-corruption, privacy, sustainability).

2019	Hours	Per capita hours	Coverage <sup>1</sup>
<b>Total</b>	<b>1,457,274.79</b>	<b>25.69</b>	<b>96.5</b>
Senior Managers	8,193.61	14.51	89.95
of whom men	6,751.91	14.41	89.0
of whom women	1,441.70	15.0	94.7
Middle Managers	77,060.34	17.53	96.13
of whom men	55,457.64	17.56	95.2
of whom women	21,602.70	17.44	98.5
Office Staff	1,372,020.84	26.51	96.64
of whom men	879,099.71	27.18	96.8
of whom women	492,921.13	25.39	96.5

[GRI 404-1] The Group invested 10 million euros in training courses in 2019, equal to a cost of 173.43 euros per capita. The value shown only takes into account the amount spent on training courses and does not include the personal benefit obtained by course participants and the positive impact on TIM's performance. The training courses are therefore worth more than they cost to deliver<sup>2</sup>.

## Remuneration policy

[GRI 102-37] The Group's remuneration policy is aimed at ensuring the company remains competitive in the labour market, and at achieving the Company's strategic objectives by pursuing sustainable long-term results in line with TIM's business risk management policy.

The primary purpose of TIM's remuneration structure is to balance fixed and variable remuneration and enhance the benefit and welfare system, with the aim of increasing recipients' satisfaction at a sustainable cost.

The components of individual remuneration are:

- fixed remuneration
- short-term variable remuneration
- long-term variable remuneration
- benefit and welfare.

The **fixed component** takes into account the breadth and strategic nature of the position held and is dictated by performance in the reference markets.

Periodic comparisons of internal remunerations and external market remuneration practices allow the establishment of the remuneration strategy to be adopted; TIM's comparative remuneration market is Italian companies of comparable size and/or market capitalization, and international telecoms and media companies.

Given the need to be selective when making changes to remuneration, especially the fixed component, this will concern cases of high quality staff where there is strong misalignment with the reference market average.

<sup>1</sup> Coverage refers to the percentage of participants compared to the total, i.e. the % of human resources of the Group who took part in at least one training session compared to the total number of human resources in each individual category. Coverage and per capita are calculated on the average number of staff in 2019.

<sup>2</sup> The figures relating to training investments and costs per capita for TIM S.p.A. only are available in the appendix to this chapter, after the training number tables for TIM S.p.A.

In addition to changes to fixed remuneration, during salary reviews, other variable remuneration instruments (Lump Sum bonus) can be put in place - normally excluding Senior Management with Strategic Responsibilities - to reward outstanding performance or particularly good results during extraordinary initiatives not part of normal activities.

The **short-term variable remuneration** (MBO) on the other hand aims to establish a transparent link between pay and the degree of fulfilment of annual targets. To this end, the targets were fixed according to quantitative indicators that represent and are consistent with the strategic priorities and business plan, measured according to pre-established and objective criteria.

The MBO 2019 system provides for a “gate” objective made up of the company indicator (Group EBITDA), a bonus access condition linked to all the incentive objectives; although it is for all personnel, the objective prize for 2019 has different minimum levels for eligibility, to take into account the different level of challenge required of management.

With regard to the remaining targets set in MBO, for direct reporting to the Chief Executive Officer, the focus is on the economic and financial objectives attributed to the Chief Executive Officer and a strategic objective linked to the Business Plan has been introduced; for the other managers, the most significant economic and financial objectives are considered, to give adequate space to the specific role objectives, which are in any case objectively measurable.

Finally, it should be noted that in 2019 Performance Management was exceeded as an objective within the MBO system; the evaluation of managerial behavior is in any case ensured as part of the corresponding monitoring process, parallel to and independent of the MBO system.

For those who report directly to Executive Directors, the bonus target values are set in continuity with 2018 and are up to 50% of the fixed component. For the remaining incentivised staff, the target values are set - based on the role complexity - at up to 30% of the fixed component.

With regard to the pay-out of the incentive system, it should be noted that in 2019 an innovative element was introduced in the form of a corrective factor to reduce the pay-out, aimed at strengthening the culture of sensitivity among Management to the Company's internal control and risk management issues: the multiplier is in fact related to the failure to implement corrective actions/remediation plans defined in the Control Functions.

The accrued bonus is fully liquidated in cash form, at the time that the results achieved are confirmed<sup>1</sup>. For 2019, the possibility has been introduced on an experimental basis for executives to choose between paying the accrued premium on a pay-as-you-go basis and paying the entire amount - or part of it - to their supplementary pension fund.

**Long-term variable remuneration** is aimed at promoting consistency between the interests of management and those of shareholders, through sharing of the business risk.

On July 24, 2018, the Board of Directors approved the 2018-2020 LTI Plan and Performance Share plan, with a three-year vesting period<sup>2</sup>, and a two-year lock-up. This Plan is reserved to the Chief Executive Officer and owners of managerial positions with a major impact on company results. The Plan is subject to the achievement of the performance condition linked to the increase in both the share value and economic and financial indicators.

For both the MBO system and long-term plans, a contractual claw-back<sup>3</sup> mechanism is in force, which allows for retrieval of the variable remuneration paid out to Executive Directors and managers with strategic responsibilities starting from 2016. As defined in the policy, the claw-back clause can be triggered in the three years following payment of the sums.

<sup>1</sup> To provide accurate information on the relationship between Senior Management remuneration and that of the Company population [GRI 102-38], [GRI 102-39], in accordance with the “Policy for Information Classification and Management in terms of confidentiality”, TIM provides some information, useful for the calculation, in the usual table form, in the Remuneration Report and in the Annual Financial Report.

<sup>2</sup> Vesting period is the period that separates the time of the Plan assignment from that of the Performance Shares accrual, corresponding to the years 2018, 2019 and 2020.

<sup>3</sup> aa contractual clause allowing variable remuneration paid to be recovered in the event that the disbursement was a result of malicious or grossly negligent behavior of the executives involved, or in the event of a data formulation error that led to a balance sheet restatement.



**Benefits and welfare** constitute non-monetary elements of remuneration.

In particular:

- benefits are assets made available to beneficiaries, depending on their role and are aimed at improving their well-being; these services generate an economic value separate from both fixed salary and other forms of variable remuneration;
- welfare is the package of non-monetary services available to the entire corporate population regardless of role, aimed at increasing individual and family well-being of all employees.

The following are the main objective types linked to sustainability in the company MBO system

Reference stakeholders	Targets subject to incentives	% of managers (to whom the target applies)
Customers	Customer satisfaction index	54%
	Quality of the service perceived by consumer and business customer	28%
	Quality of the service perceived by other national fixed and mobile telephony operators	17%
Human Resources	Health and safety of employees	5%
	Training and professional growth programs	12%
	Welfare activities (People Caring) and employees' welfare	15%
Environment	Energy saving and compaction plans	7%
Peace, justice and strong institutions	Creating Value for the Company	41%
	Quality and timeliness of corporate reporting	2%
The Community	Quality of initiatives, events and corporate projects	2%

## Remuneration policy in Brazil

As for the Italian remuneration policy, Brazil is also divided in four major groups: fixed remuneration, short-term variable remuneration, long-term variable remuneration and benefit and welfare. The remuneration policy has some points in common with that of Brazil.

The fixed component takes into account the breadth and strategic nature of the position held and is dictated by performance in the reference markets. Periodically, internal and external comparisons are made to ensure market competitiveness about compensation.

In addition to changes in fixed remuneration, during salary reviews, other variable compensation instruments (bonus / salary increases) can be put in place to reward / recognize outstanding performances.

The short-term variable remuneration (MBO) on the other hand aims to establish a transparent link between pay and the degree of fulfilment of annual targets. To this end, the targets were set according to quantitative indicators that represent and are consistent with the strategic priorities and the business plan, measured according to pre-established criteria and objectives.

As usual, the MBO 2019 system provides for a “gate” objective, composed of the EBITDA indicator as a condition of access to the bonus, applied indiscriminately to all participants in the plan.

There are corporate, departmental, and functional goals in the MBO. For 2019, the functional and departmental weighting were reduced to give greater importance to corporate targets.

As objectives linked directly to business sustainability we can mention two main ones: “Satisfaction Survey”, attributed to 98% of the company's executives and the Digital Transformation, attributed to almost 90% of the participants.

The accrued bonus is fully liquidated, in cash form, when the results achieved are confirmed.

Long-term variable remuneration is aimed at promoting consistency between the interests of management and those of shareholders, through sharing of the business risk.

On April 19, 2019, the Board of Directors approved the 2018-2020 LTI Plan, Performance Share plan, with a three-year vesting period, and a 12-year lock-up. This Plan is reserved to the Chief Executive Officer and owners of managerial positions with a major impact on company results. The Plan is subject to the achievement of the performance condition linked to the increase in both the share value and economic and financial indicators.

The benefits and welfare constitute the non-monetary element of remuneration. The Company also confirmed a substantial investment in terms of dedicated economic resources for 2020, too.

In particular:

- benefits are assets made available to beneficiaries, depending on their role and are aimed at improving their well-being; these services generate an economic value separate from both fixed salary and other forms of variable remuneration;
- welfare is the package of non-monetary services available to the entire corporate population regardless of role, aimed at increasing individual and family well-being of all employees.

Company car, extra day off based on years worked or on birthdays, cell phone plan, gym incentive program, health care plan and retirement plan are examples of benefits and welfare. The company also has a flexible scheme that enable the management level decides their own mix of benefits. These can be balanced, picking from a menu of options that “upgrade” or “downgrade” the default benefits, using a flex fund that represents a percentage of their salary.

The focus of benefits strategy balance innovation, market tendency, employee's needs and smart cost that comes with tax and administrative incentives, partnerships or using the company's own business platforms.

<sup>1</sup> *Vesting period* is the period that separates the time of the Plan assignment from that of the Performance Shares accrual, corresponding to the years 2018, 2019 and 2020.

## Industrial relations

[GRI 103-1: Management Approach] [GRI 402] The 2019 materiality analysis confirmed managing employment relationships as a material topic for the whole Group. [GRI 103-2: Management Approach] [GRI 402] TIM has always entertained open and transparent relationships with trade unions and workers' representatives, in the belief that it is only through continuous, constructive dialog that the best possible balance can be struck with respect to the expectations of all stakeholders. [GRI 102-41] All Group workers, both in Italy and in Brazil, are covered by Collective Labour Agreements reached with trade union organizations and all personnel are guaranteed the possibility of attending union meetings, in terms of paid leave and company space to enable them to be held, as well as of freely participating in consultation procedures for the election of trade union representatives. In no Group operations is the right to union participation at risk or disputed. Amongst other things, union agreements lay down the ways in which these rights can be enforced and establish the bodies in charge of controlling compliance therewith. [GRI 402-1] TIM takes care to listen to and engage with workers' representatives, including through reorganization processes. The search for constant, constructive and dynamic dialog has encouraged, over time, significant agreements between the social partners, aimed at balancing both business needs and those of the people who work in the Company.

[GRI 408-1] [GRI 409-1] Collaboration with workers' representatives, together with internal control systems and procedures, has meant that no violation or risk has been reported with regards to the application of the Group's Social Responsibility policies protecting the essential rights of employment, such as the ban on forced or child labor<sup>1</sup>.

### The Industrial Relations model

TIM has developed its industrial relations model over time to be geared towards ensuring constant dialog and constructive engagement aimed at promoting the appropriate participation of trade union representatives and organizations.

The structure of TIM's current industrial relations model, formalized with the trade unions in the Protocol of January 11, 2019, is aimed at enhancing collaboration on matters required by law and collective bargaining, in the areas of information, consultation and negotiation, both at national and regional level.

At a local level, there is a widespread presence of trade union representatives in all the Italian regions, which fosters active decentralized participation allowing the specific regional needs and opportunities to be better understood and combined by both parties. Today, 396 TIM people hold the office of trade union representative. TIM recognizes specific prerogatives defined by company agreements in force at the time for union representatives in the company, in addition to the protections and rights provided by law and the TLC national labor agreement.

Due to the organizational complexity and multi-regional presence, trade union representatives elected a national representative body - in line with the Consolidated Law on Representation January 10, 2014 - called the National Trade Union Representatives Coordinator, delegated to manage negotiations with the company for matters of a national nature.

The industrial relations system is set up with a focus on preventive phases of information and union discussions, also through specific corporate bodies (in the form of permanent joint commissions) with the task of the technical development of specific subjects such as training and occupational health and safety, welfare and equal opportunities. This system is based on a widespread knowledge of the company's strategies, as well as a particular focus on the protection of collective interests and the professional development of workers, enhancing the dialog that takes place both nationally and locally.

<sup>1</sup> [GRI 103-3: Management Approach] [GRI 408] In terms of child labor, the policies allow for some completely legal exceptions, such as, for example, training contracts for which incentives are provided by the Brazilian government.

## Exit flexibility instruments - the February 2019 agreements

On February 26, 2019, the application agreements for the two-year period 2019-2020, pursuant to Art. 4, paragraphs 1 to 7 of Law No. 92/2012 to incentivise the departure of 4,300 TIM S.p.A. employees meeting the necessary requirements.

In particular, the measure is aimed at employees who qualify for either old-age or early retirement by:

- May 31, 2024 and give their consent to end the employment relationship in 2019;
  - December 31, 2025 and give their consent to end the employment relationship with effect by November 30, 2020.
- Particular attention is paid to the TIM people with serious illnesses: the company will start to assess access to 'isopensione' (early retirement) in 2019.

For joining employees, TIM S.p.A. undertakes to pay INPS a monthly amount corresponding to the pension that would be due to them under current rules, up to the first effective pension date, old-age or early retirement, and to pay the related contribution to the institution until the minimum requirements have been reached, in accordance with the law and administrative provisions of these explanatory notes.

For 2019 the agreement provided for 2,250 instalments, all of which have been implemented.

## The challenge of technological transformation - The Expansion Contract

[GRI 103-3: Management Approach] [GRI 402] The acceleration in technological transformation in the Telecommunications Sector, in which TIM operates, has created the need to address, at company level, integrated organizational review activities, digitization of processes and adaptation of the skills and capabilities of all staff.

In this context, as part of the negotiations for the renewal of the second-level contract, the Social Parties defined a set of agreements seeking to combine the achievement of the objectives set out in the Industrial Plan with the safeguarding of workers' needs, including the Expansion Contract (hereinafter the Contract), introduced by Law 58/2019 to support the technological development processes of companies with more than 1,000 employees.

The Contract (signed in August 2019 by the government) is an innovative tool that combines the needs of efficiency with those of development, allowing companies to adapt the skills of their staff and acquire new ones from the external market.

TIM and the trade unions have recognized the need and urgency to jointly address, within a framework of clear and shared rules, the effects of the ongoing digital revolution, implementing all actions that can both protect jobs and help the evolution of professional skills.

The Contract provides for the entry into the Company, during the two years 2019-2021, of 600 new permanent employees with ICT-related profiles and different levels of professional seniority.

Another important theme contained in the Contract is related to professional retraining and consequent training for TIM people in line with the company's objectives, enhancing existing skills, replacing obsolete ones and developing new ones.

The expected reduction in working hours is 6% or 1.9% depending on the different sectors involved. This is a vertical reduction, that is, on full days.

## Supplementary Contract 2019

In 2019, negotiations continued on the second contractual level of TIM S.p.A. These negotiations sought to identify, in compliance with reciprocal roles and shared rules, instruments and measures to combine the principles of productive and organizational efficiency and professional development, achieving them within an overall sustainable balance. Many in-depth analysis and discussion sessions were held with the trade unions, in the context of which a substantial part of the company's supplementary contract was agreed, on various topics such as:

- Work-life balance: additional days off, paid leave, Agile Work, Remote Work for Caring Agents working in large cities, unpaid leave, leave to be made up for with overtime, flexible hours, paid leave days to make up for the holidays falling on Sundays in 2019.

- Development of people and skills: implementation in the three years 2019-2021 of a total of 1,580 level changes and 400 actions to increase the working hours of the 25% of staff in part-time employment. TIM staff also received a one-off payment and paid leave days in appreciation of their contribution to the implementation of the company's strategy.

### Performance Bonus for the three years 2020-2022

The Company and Trade Unions have reached an agreement that defines the structure of the 2020-2022 Performance Bonus for TIM Group companies.

The agreement provides for the option to convert the bonus amounts into welfare benefits.

The agreement, concluded as part of the second level negotiation process, is based on economic indicators (40% EBITDA and 40% Service Revenues and quality - 20% Customer Satisfaction Index-).

The targets recognize the contribution of workers to the achievement of the expected earnings and quality results.

The average value of the Bonus for TIM S.p.A. was also defined, correlated and commensurate with the achievement of the objectives, with an average payout for the achievement of the target of 1,350 euros for 2020, 1,400 euros for 2021 and 1,450 euros for 2022.

The parties also agreed the Welfare option, whereby people can choose to take advantage of all or part of the bonus in Welfare services, benefiting from total tax relief. The list of services includes, among others, kindergartens, school fees and books, elderly care, health care, pension funds, mortgages, vouchers, sports and leisure, which are only part of the welfare component in which TIM invests.

A specific joint consultancy body has been set up to manage the agreement, which will be notified of the goals each year, derived from the budget process, in accordance with the Industrial Plan; this body is tasked, inter alia, with analyzing the types of services accessible through welfare.

### Work-life balance

- During 2019, the Company and Trade Unions signed specific agreements, intended to extend the emergency measures to improve the working conditions of the 700 TIM employees in Genoa and province following the collapse of the Morandi bridge<sup>1</sup>. One year after the signing of the memorandum of understanding, the extraordinary temporary measures were extended to lessen any inconvenience for employees both in their home-work commutes and in carrying out their professional activities. TIM's intention is thus to respond fully and practically to the state of emergency, at least until the completion of the new bridge.
- For staff in Rome and Bari – cities particularly affected by the project to rationalize the company's offices – the possibility of extending the number of days of agile work from home has been confirmed, until the operational start of the new company agreement, in order to facilitate work-life balance.

### Industrial Relations activities in Brazil

In Brazil, in 2019, TIM held a total of 19 meetings with the union representatives committee. The committee represent the 27 unions in the country.

In the first half of the year, the 2019 Profit Sharing Program was negotiated, which established the 4 goals and targets for the year. The award was also redefined by the result obtained in 2018, the increase of the program's target award to 2.3 salaries and extinguished the performance management link as the program's premium accelerator.

The negotiation was an excellent solution for recomposing the premium payment in view of the expectations of all, being very well evaluated by the unions and well received by the employees, showing TIM's recognition of the efforts made in 2018.

In the second half of 2019, the renewal of the Collective Bargaining Agreement 2019/2020 was negotiated.

<sup>1</sup>On August 14, 2018, the Genoa bridge, known as the Morandi bridge, partially collapsed, causing severe transport problems for the local population.

The renewal of the Collective Bargaining Agreement 2019/2020 dealt only with the economic clauses of the 2018/2020 Agreement, which in addition to dealing with salary floors, salary readjustment, also readjust benefits such as Food Allowance, Day Care Assistance etc.

Adjustments were made above the inflation rate of the country forecast for the period. This rate is used in Brazil as a reference for the adjustment of wages and economic clauses (was 3.28% between August 2018 and September 2019 period).

Another relevant action has been the readjustment applied to store employees, far exceeding the expectation (the inflationary readjustment index) as this readjustment was 8%. This strategy led to increased competitiveness in the hiring market for the store segment.

The Collective Bargaining Agreement was approved at assemblies in all 26 states of the country, with a 98% approval rating of 2,000 voting employees.

TIM Brasil maintained its model of proximity in the constant relationship with unions throughout the year, which facilitates the moment of renewal of the agreement and a relationship of building solutions aimed at its employees.

4.5% of employees are members of unions. Collective bargaining agreements covered 100% of employees.

## Health and safety

[GRI 103-1: Management Approach] [GRI 403] The 2019 materiality analysis confirmed the protection of health and safety as a material topic for the entire Group.

[GRI 103-2: Management Approach] [GRI 403] Within the Italy, the regulatory provisions for occupational health and safety, in addition to defining the necessary criteria for risk identification and assessment, provide that adequate participation and consultation of workers through the Workers' Safety Representatives has been implemented.

The Health and Safety at Work Management System implemented by TIM ensures that the Company complies in full with national legislation and agreements reached with trade unions; it also establishes numerous initiatives aimed at ensuring comparison tables are put in place to maintain high safety standards.

TIM's **Safety Management System Model** involves the full involvement of all players that participate in the safety process: company management, operational coordination figures, appointed doctors, workers and Workers' Safety Representatives (WSR).

[GRI 403-1] In relation to the latter, the legislation requires that they are or appointed by the workers within the framework of the Company Trade Unions. In this sense, the percentage of covered employees is 100%. [GRI 403-4] The number and method of designation or election of workers' safety representatives, together with the salaried working hours and the tools used to fulfil their duties are agreed during the collective bargaining process.

[GRI 403-4] the corporate relationship model in terms of safety, which has always been based on participation logic, includes about 80 Workers' Representatives for Safety throughout the country, who support five Committees made up of a mix of company/trade union members with specific workers' health and safety functions. These Committees present at national and local level, according to the agreements stipulated with the trade union organizations, play a participatory and collaborative role aimed at guaranteeing joint analyses and discussion by the company party and the union party of all matters relating to health and safety at work, on a national and local level.

In this context, the "Health, Safety & Environment" (HSE) department supports Company organization in the management of health, safety and environmental issues by assessing risks and identifying the most appropriate prevention and protection measures and in line with technological development.

The identification and assessment of risks found at the Company, which is the priority activity of the preventive actions, is ensured through constant oversight of company processes and their evolution in close connection with the management lines. These activities are performed by specialized internal staff capable of conducting instrumental analyses and surveys on safety in the workplace (high and low frequency electromagnetic fields, noise, vibrations, natural radioactivity, lighting, micro-climate, manual handling of loads, etc.).

The control measures applied to eliminate or contain the risks include:

- numerous health and safety training programs, differentiated according to the risks and professional profiles found at the Company;
- the latest generation protection and/or collective equipment and devices often designed ad hoc in collaboration with the most important multi-nationals on the market;
- any organizational arrangements necessary, implemented in collaboration with the lines, which can guarantee an acceptable level of risk, where it cannot be eliminated.

The most significant performance indicators to measure the effectiveness of the actions adopted include the outcomes of the accidents analysis, which generates improvement plans defined on the basis of the causes that led to the events and that can lead to the updating of the Company's risk assessment.

[GRI 403-3] Work activities are classified at low and medium risk levels, in line with the ATECO classification criteria of the National Institute of Statistics; there are no high-risk classified activities in TIM S.p.A. or the other Group subsidiaries.

Specialist activities also continued during 2019 for updating the risk identification and assessment process in line with changes in organisation and procedure linked to the management of prevention aspects.

Monitoring campaigns with instrumental surveys focused in particular on physical agents such as: Indoor and outdoor noise, noise from electromagnetic fields, indoor pollution. Following the assessment of work-related stress risk carried out in 2018 (in line with the three-yearly frequency provided for in the INAIL Guidelines), the design of the related improvement actions was started. In relation to training, work continued with technical operational personnel, increasingly focused on the application of new technologies and new operational scenarios. With reference to accidents, careful analysis of events and where necessary potential identification of corrective actions continued and in addition direct involvement of the lines affected and of the HR department was reinforced for greater synergy.

As part of our experimentation with digital applications as new technologies for Safety issues, in collaboration with the technical lines, the Q-Pole App and the X-Pole tool used for assessing of piling conditions before doing work at heights and the Confined Environments App were released and made fully operational, so that technical personnel (both public and company workers) can do the preliminary tests required by regulations on access to underground structures in confined environments. The App B-Safe for managing first aid during solo work is still in its test phase.

In November the SicurinTIM project was launched, designed to promote health and safety in the workplace within the Company. Through initiatives and events promoted over 12 months, it aims to strengthen a culture of prevention that encourages the adoption of virtuous behavior inside and outside the Company. The project is directly supported by the Head of Human Resources & Organisation, as well as by the Safety Steering Committee, set up in April and made up of top management personnel who, in just a few months, have already made important common commitments, including reducing the number of accidents.



## Injuries and occupational diseases

[GRI 403-2] The data and the main accident indices for TIM S.p.A. and Brazil

<b>TIM S.p.A.</b>	<b>12/31/2019</b>	<b>12/31/2018</b>	<b>12/31/2017</b>
Number of accidents (excluding in progress) *	381	424	481
Severity index**	0.20	0.18	0.20
Frequency rate**	6.42	6.72	7.67
Average injury duration in days <sup>1</sup>	30.72	145.07	139.81
Unproductivity index*	1.23	1.13	1.26
Accidents per 100 workers	0.91	0.98	1.08

\* Starting from 2018 the number of injuries is presented net of dressed injuries (which involve only a dressing with work being immediately resumed): 6 cases in 2018 and 9 cases in 2019.

\*\* The severity, frequency and unproductivity indexes are respectively:

- the number of conventional working days lost due to accident per thousand hours worked
- the number of accidents per million hours worked
- the number of hours lost due to accidents per thousand hours worked

<b>Brazil BU</b>	<b>12/31/2019</b>	<b>12/31/2018</b>	<b>12/31/2017</b>
Number of accidents (excluding in progress)	17	13	12
Severity index	0.01	0.01	0.01
Frequency index	1.09	0.88	0.74
Average injury duration in days <sup>1</sup>	13.53	95	84
Unproductivity index	0.12	0.01	0.06
Accidents per 100 workers	0.07	0.14	0.13

<b>TIM Group</b>	<b>12/31/2019</b>	<b>12/31/2018</b>	<b>12/31/2017</b>
Number of accidents (excluding in progress)	432	N.A.	N.A.
Severity index*	0.16	N.A.	N.A.
Frequency index	5.28	N.A.	N.A.
Average injury duration in days <sup>2</sup>	30.67	N.A.	N.A.
Unproductivity index	1.05	N.A.	N.A.
Accidents per 100 workers	0.7	N.A.	N.A.

In TIM S.p.A., to ensure correct management of accident events, a procedure has been put in place describing the rules and requirements of each subject in the "genesis" process, the management and closure of reports of incidents at work and/or while traveling involving workers for which companies are required to pay an INAIL<sup>3</sup> premium.

The positive trend of a reducing number of occupational accidents is confirmed in 2019, with a recorded decrease of 10% compared to 2018. A closer examination of the indicators shows that the decrease in the number of accidents has led to a fall in the "frequency" index (from 6.72 to 6.42) and in the "ratio of accidents to 100 workers" indicator (from 0.98 to 0.92). However, the increase in the average duration of accidents at work compared to the year before led to a slight increase in the values of other accident indicators such as the "seriousness" index (from 0.18 to 0.20) and "unproductiveness" index (from 1.13 to 1.23). There were no fatal accidents at work in 2019. Details on the accidents, occupational diseases and absences required by the GRI [GRI 403-2] standard are given in the Appendix to this chapter.

The main types of accidents identified were, in descending order: personal falls, traffic accidents, sprains/pulled muscles, shocks, injuries resulting from materials/equipment handling, crushing, injury from falling objects and other types of minor accidents. In relation to occupational diseases, complaints submitted to INAIL (National Institute for Insurance against Accidents at Work) in the reference year and subject to recognition procedures were taken into account. During

<sup>1</sup> In previous years the average accident duration was reported in hours.

<sup>2</sup> In previous years the average accident duration was reported in hours.

<sup>3</sup> National institute for insurance covering accidents at work.

2019, occupational diseases reported by workers related to musculoskeletal, respiratory, auditory and mental/psychosomatic illnesses.

[GRI 403-4] *In Brazil* the collective agreements state as a rule that information must be provided on the prevention of accidents in the workplace and occupational diseases, and TIM complies with this practice.

[GRI 103-2: Management Approach] [GRI 403] As regards Health & Safety issues in 2019, the Company made improvements in occupational health examination practices, with more perceived attention given to employees. The company also developed self-care campaigns such as Pink October and Blue November, to increase awareness of breast and prostate cancer prevention. In terms of medical insurance, the Company has worked to digitize activities resulting in faster reimbursements to employees.

The Company carries out the Environmental Risk Prevention Programme (PPRA) every year in line with legal requirements; a study conducted at TIM's Brazil offices through on-site safety inspections, identifying the risks and control measures. The aim of the Medical Occupational Health Control Programme (PCMSO) is to indicate occupational health checks relating to any environmental risk conditions as a prerequisite for monitoring workers' health. Moreover, an Internal Accident Prevention Week (SIPAT) is held each year to raise awareness among employees on Health & Safety related aspects.

The internal committee for the prevention of accidents at work (CIPA) is made up of company representatives and workers based in all the regional offices of TIM, in line with the legal requirements of Order 3214/78 - Regulatory Standard 5. With the support of CIPA, the company sets up influenza vaccination campaigns and blood donation programs and promotes the adoption of healthy habits amongst employees.

In addition, periodic audits and/or inspections are performed to assess the effectiveness of the prevention measures in processes and workplaces set up to continuously improve health and safety conditions. The Health & Safety team is made up of 32 members, strategically distributed in the regional offices of TIM Participações.

## People Caring

The welfare model combines tradition and future with specific strategic and organizational awareness, which places welfare at the heart of the Human Resources strategy, enabling the use of services and initiatives aimed at encouraging company, family and social sustainability.

Strongly focused on developing *work ability* (a person's capacity to perform their work as best they can now and in the future, with respect to the demands of their job, regardless of their age) and *engagement* to support digital transformation at TIM, the model provides for the classification of activities for 3 specific action areas:

- Work-life balance: the set of services and initiatives to improve work/life balance;
- Working time management: projects to enable people to gain a more digital, flexible and simple vision of work;
- Inclusion Management: activities to place everyone in a position to give the best of their potential, identifying personalised solutions and recovering blocked energies and unexpressed areas of productivity.

Inclusion is therefore a key area of TIM's welfare system, but also the most challenging one, and it is no coincidence that it is also considered a profoundly identity-based and strategic lever. In fact, it clearly permeates all founding documents of the new organizational identity: from the Ethics Code to the Human Rights Policy and values.

TIM's welfare system therefore revolves around the wellbeing of the person in his or her "employee journey" and takes into account the family care he or she needs time for between working and non-working life, in the awareness that organizational wellbeing is closely related to people's satisfaction and engagement and therefore performance.

## Work-life balance

Work-life balance is the first pillar of TIM's welfare and is based on the belief that performance and organizational well-being are connected to each other and to the organisation of family and work life. In 2017, confirmed in 2018 and 2019, TIM received the Family Audit certification, a managerial tool that aims to start a cultural shift through innovative life-work balance initiatives, setting off a virtuous cycle of continuous improvement.

This is why TIM established a range of services to help its people reduce their care-loads, continuing to adapt all processes to the new notion of family, moving from the idea of a nuclear family to the registered family which includes all of the employee's family members, irrespective of blood or legal ties.

The main services include: 7 company nurseries and 1 company infants' school; 159 children registered and 355 reimbursements for partial cover of fees for employees' children at nurseries or for babysitting services; 41 "TIM Summer" campuses/camps/colleges for employees' children for a total of 6,100 participants; "Mum and Dad" permits for parents with children up to age 11, allowing them to use permits for a few hours or entire days to offset their absence within the given 3-month period; "Mum and Dad" loans for parents with children aged 0 to 11 who are eligible for loans up to a maximum of €2,500 for each child, around 600 reimbursements for university fees for employees' children, 45 inter-cultural study grants in India, China and Ireland for children with good school results. Moreover, they can enjoy a wide programme of agreements with external organizations (around 200) via two e-commerce portals customized for TIM.

On the occasion of the recent Level II contractual agreement, the transition of flexible work from experimental to structural mode of work performance was defined. There are further integrated flexible work initiatives to facilitate the work-life balance of certain categories:

- pregnant women (1 day more flexible work per week than generally expected);
- new mum (1 day more flexible work per week than is generally expected, until the sixth month after returning to work from maternity leave);
- new dad (1 more day of flexible work per week than is generally expected, until the child is six months old);
- return to duty from an illness for more than 30 consecutive days (1 day more flexible work per week than generally expected for the month following return from illness)

Also within the Level II contractual agreement, staff have been given the possibility of clocking in electronically, to have up to 24 hours per year of recovery leave in order to facilitate the management of family and non-work commitments in general.

The "Special Welfare" programme, as described in the paragraph on remuneration policies in this report, has offered management the chance to convert the bonus into services, which can be purchased through a dedicated platform or by requesting reimbursement of expenses already incurred, to enjoy the tax advantages offered by law.

In 2019, a "Well-Being Project" was launched to raise awareness of healthy lifestyles and illness prevention, through four themes:

- prevention
- nutrition education
- movement and physical activity
- stress reduction

In the field of prevention, the first e-learning training module, available for all on the TIM Academy platform, dealt with sexually transmitted illnesses.

Finally, within the "Movement and Physical Activity" strand, a partnership with Gympass was launched, which allows employees with a single monthly subscription to access over 2,200 sports centers at affordable prices.

## Working time management

[GRI 103-3: Management Approach] [GRI 407] The second pillar of TIM's welfare initiative, which revolved around Flexible Work, which, under a Level II contractual agreement signed on July 18, 2019 with the trade unions, has gone from the experimental phase to a permanent project that allows people to work from home or satellite offices closer to home. Over 23,500 employees' jobs are compatible with the Flexible Work method and they therefore constitute the pool of qualified persons. At 31.12.2019 about 17,000 people had joined the project.

Between the conclusion of the experimental mode and the activation of the structural one, a total of about 300,000 days were used (68% from home) with the availability of 230 satellite sites in 161 municipalities throughout the country, for a total of 30,768 places available every month. Taking into account travel avoided, over 250,000 hours of commuting were saved (with a corresponding quality of life improvement), amounting to over 8 million kilometers and about 1,300 tons of CO2 avoided.

Another important area of action is Mobility Management, whereby TIM helps people travel from home to work and back through its network of 10 mobility managers, company shuttle buses (253 trips per day to 15 company offices in five cities), car sharing and bicycle racks at company offices.

In **Brazil** the company maintained the Flex Office Program, offering employees the opportunity to balance their personal and professional life, by taking advantage of all the mobility the telecommunications technology has to offer. According to this program and based on guidelines set out in a specific policy, employees working at the headquarters are allowed to work remotely, from anywhere with internet access, with the same commitment they would have undertaken when working on company premises, while enjoying extra quality of life and productivity in their projects and activities.

## Inclusion Management

[GRI 103-2: Management Approach] [GRI 405] [GRI 406] [GRI 103-3: Management Approach] [GRI 405] [GRI 406] [GRI 405]

TIM's diversity & inclusion management programme aims to implement a concrete, sustainable and long-term vision for the company, guaranteeing equal opportunities and full respect for diversity for all the TIM Group's more than 50,000 people. At the heart of this programme is the awareness, gained from external and internal analysis, that an inclusive environment in which everyone can express their potential and uniqueness to the full is the cornerstone of people's performance and company growth.

The Engagement Survey carried out in May 2019 showed that inclusion is the second top driver for getting people engaged. Inclusion also plays a key role in knowing how to innovate the products and services offered; anticipating market needs actually means going beyond the limits often generated by work routines and habits to look at the activities, processes and people from a unique point of view.

In 2019, TIM was once again in the Top 100 of the Refinitiv Diversity and Inclusion Index, the most respected world ranking for the criterion, at 6th, making it the highest Italian company and highest telecoms company in the world. TIM's place in the Refinitiv Diversity and Inclusion Index confirms the Group's commitment to equal opportunities, non-discrimination and inclusion as the basis of its company strategy to improve internal expertise, organizational well-being and therefore company performance.

Me 2019 TIM was also in the Top 20 of the Diversity Brand Index which lists the brands seen as the most inclusive.

The 2019 engagement survey gave the average satisfaction value of TIM people, on a scale from 1 to 5, as 3.7<sup>1</sup>.

The main areas of development for TIM's Inclusion Management are:

- **Cultural diffusion and awareness:** TIM Inclusion Week and the annual calendar of inclusion events "TIM Inclusion Time", launched in 2019 to ensure continuous promotion of inclusion issues (in 2019 over 200 events were held to spread the culture of inclusion), courses on human rights, inclusion in general and disability management; launch of the #TIM4inclusion community; the social network campaign #TIM4inclusion (especially the video series "THE sign of..." which presents 5 stories of inclusion got; a specific reference to the issues of inclusion in the key organizational identity documents: code of ethics, human rights policy, charter of values, leadership model.

<sup>1</sup> The percentage of fully satisfied employees (4 + 5) was 56%.

- **Disability management:** at TIM, there are 1,684 employees with disabilities, accounting for around 3% of the workforce. The following have been made available for these employees to have a positive work day:
  - the policy of automatic workstation adaptation;
  - solutions to improve communication between deaf and hearing employees<sup>1</sup>;
  - the activities of the Working Capital accelerators that assist several disability project start-ups;
  - support for employees' children with disabilities during TIM Summer camps.
- **Gender:** TIM is working in partnership with Valore D<sup>2</sup>, both as a supporting member and as a member of the Board of Directors. Because of this, more than 100 employees a year have the opportunity to attend skill-building courses, mentoring and coaching programs, as well as courses and workshops on welfare and work-life balance<sup>3</sup>; In addition, during 2019, the "Women's Project" was launched.
- **Age management:** in Italy, more than half of the Group's people were born between 1960 and 1980. This figure increases in the area of caring services alone. TIM has therefore launched an important age management programme that includes a portfolio of activities: from the cross-generational "masters of the trade" meetings, to mentoring, to the redesign of models of development, training and rewards.
- **Sexual orientation and gender identity:** thanks to the partnership with PARKS, Liberi e Uguali, of which TIM is a founding member and Board member, we have implemented TIM's definition of "family", which extends all benefits granted to its employees (car, healthcare, supplementary insurance) to all cohabiting partners, regardless of sex, and grants the opportunity to access the company's many care services (crèches, summer stays, study stays) to the registered family of the employee regardless of the blood bond, and therefore also to homosexual families and their children); in 2019 TIM was also a sponsor of Roma Pride and Milano Pride, with the participation of a large group of employees and family members.
- **Employee volunteering initiatives:** these are an integral part of TIM's inclusion management programme, since they promote coming together and improving listening and comprehension skills and, indeed, inclusion. The main voluntary activities include:
  - 1,731 Group employees have renewed their commitment to helping CIAI<sup>4</sup>, the Community of Sant'Egidio and Save the Children, giving their support to remote adoption of children, with a total contribution of around 180,000 euros;
  - 51 blood donation days were organized (around 10,000 blood donations a year);
  - over 700 employees signed up to take part in "Race for the Cure" organized by the Susan Komen Foundation for breast cancer research;
  - at 15 company locations, 64 solidarity stalls were hosted by charities.<sup>5</sup>

#### [GRI 103-2: Management Approach] [GRI 405]

TIM Brasil reinforced its commitment in people engagement, people caring, and diversity and inclusion management as fundamental pillars of its HR practices.

In 2019, around 9,042 employees took part to Corporate Climate Survey<sup>6</sup>, corresponding to 96% of the whole workforce.

To encourage general involvement, in October 2019 employees and their families participated in the "TIM Abre as Portas" initiative, during which TIM opened its doors to approximately 3,200 children (the sons and daughters of employees aged between 3 and 12 years). The children who visited the offices, getting to know the environment in which their parents work and participating in recreational and innovative activities.

Considering diversity as a reflection of society and, consequently, of the labour market, TIM Brasil continued implementing a culture of respect and appreciation of differences, trusting the fact that the more diverse a group is, the greater is the exchange of experiences and solutions, which helps build a healthy work environment and a competitive advantage in the market.

<sup>1</sup> TIM offers the LIS interpreting service in the key moments of interaction between manager and employee, subtitles in main communications on the Intranet, specific e-mail inboxes, as well as free video calling services and an integrated communication platform developed internally, which can be used both from smartphones and desktop computers.

<sup>2</sup> [www.valored.it](http://www.valored.it)

<sup>3</sup> TIM has also joined the Women's Employment Manifesto, a document whereby it is committed to 9 areas of activity.

<sup>4</sup> Italian Center for Childhood Aid.

<sup>5</sup> Charity events promoted by employees for non-profit organizations.

<sup>6</sup> For more details, see The Commitment to our people section of this chapter.

Therefore, in July 2019, the People Caring and Inclusion Management unit – within Human Resources and Organization area has been created with mission to build and manage policies, programs and structured initiatives of diversity and inclusion, aligned with the strategy and organization culture and the principles of inclusion and appreciation of the contribution of each employee.

A new plan has then been structured and focused on 5 categories of diversity & inclusion and related commitments:

- **Gender:** acting on gender parity, ensuring equity of opportunity in the employee's journey at TIM (hiring, on boarding, training and career development);
- **Sexual orientation and gender identity:** Promote an inclusive work environment, combating all forms of discrimination and prejudice;
- **Ethnicity:** Acting on ethnicity and race equity, ensuring equity of opportunity in the employee's journey at TIM (hiring, on boarding, training and career development).
- **Generation:** Valuing generational diversity by bringing people of all ages together in a context of mutual exchange and learning.
- **People with disabilities (PWD):** Increase actions to bring in, develop and retain people with disabilities in the company, breaking cultural and physical barriers to ensure equal opportunities for them.

TIM continued rolling out the already existing PWD program, based on enabling PWD people to join the Company also through special career opportunities. TIM Brasil also implemented several actions to make its facilities and furniture accessible to these employees, ensuring quick adaptation to the internal environment, in addition to conducting awareness activities with managers and teams.

By doing these actions, TIM Brasil was able to increase the number of people with disabilities hired. As a consequence, the company improved its percentage of compliance with the hiring quota established by the Conduct Adjustment Agreement (TAC, acronym in Portuguese), signed with the Brazilian Public Prosecutor's Office (Law No. 8213/91), going from 28% in 2016 to 40% in October 2019.

Throughout 2019, the Company also reinforced the commitment and positioning of diversity and inclusion in TIM Brasil through some actions such as Mother's, Father's Day and International Women's Day campaign with approach focused on diversity & inclusion, free of gender stereotype.

The TIM Talks, a week of development dedicated to all employees, offered workshops and lectures across the country, especially on diversity & inclusion. Eight events were focused on diversity & inclusion themes, with participation of speaker of the LGBT Community, over 60s and people with disabilities. The program also offered dedicated content for employees' children, with lectures and workshops on careers, social networking and business.

## Other initiatives for employees

[GRI 201-3] To promote employee personal and family well-being through enhanced investments, TIM has put in place a company loan scheme for predefined reasons for all Group personnel.

To support preventative staff health care, TIM provides all those who are 45 years of age or older, the chance to join a flexible and personalised health prevention programme every two years.

ASSILT (supplementary healthcare association for the employees of TIM Group companies), funded by the Group companies, by employee members and retired members, is a non-profit-making organisation providing services to its members and beneficiaries that are supplementary to those provided by the Italian national health service, including - together with public healthcare establishments - collective and individual research, knowledge-gathering initiatives and health prevention activities, and the promotion of health education initiatives to protect the health and physical well-being of its members. In 2019, the Association issued refunds totaling approximately 52 million euros. As of December 31, 2019, the Association had 168,000 members, including about 89,000 employees and family members and 79,000 pensioners.

ASSIDA provides senior management staff with refunds for the cost of supplementary health services to those provided by the Italian national health service. At December 31, 2019, the Association had 1,581 beneficiaries and 527 registered managers and had disbursed approximately 1,500,000 euro.

TELEMACO is the national complementary pension fund for employees in the telecommunications industry, established in 1998 as a non-profit association and operative since October 2000; its objective is to ensure that those subscribing are able to maintain their standard of living when retiring, thanks to the creation of supplementary social security, over and above the public provisions. It is intended for workers, office staff and middle managers of companies that apply the national telecommunications contract, for employees on permanent, apprenticeship or placement contracts and for people who are physically supported by the workers subscribing to the Fund. As of January 1, 2020, there were 33,376 employees subscribed to Telemaco, from 9 associated companies with active members.

[GRI 401-2] All Group workers, whether full or part-time, on permanent or fixed-term contracts, enjoy the same benefits, whilst, in Italy, the supplementary welfare institute is extended to workers on apprenticeship or placement contracts, as well as to employees on permanent contracts.

CRALT is the recreational club for employees of the TIM Group which organises sight-seeing, sports, cultural and recreational activities for its members, employees, pensioners and their families. By entering into specific agreements, CRALT also allows members and their families to purchase goods and services at particularly good prices, which can also be settled in instalments. One of the most significant of these is the agreement and the resulting contribution provided for the purchase of school and university books for the children of members, as a valuable contribution to household purchasing power.

At December 31, 2019, there were about 40,000 members, of which about 35,000 employees and about 5,000 retirees.



## APPENDIX

Below is the analytical data for the company workforce, broken down according to the GRI Standards.

[GRI 102-8f] Group data includes, as well as Domestic Business Unit and Brazil, other very few units deriving from two entities (Telecom Italia Capital S.A., Telecom Italia Finance S.A.).

### [GRI 102-8a] [GRI 102-8c] Employees by type of contract, employment and gender.

	2019		2018		2017	
	Man	Woman	Man	Woman	Man	Woman
<b>Total permanent</b>	<b>34,644</b>	<b>20,456</b>	<b>36,787</b>	<b>20,963</b>	<b>38,107</b>	<b>21,184</b>
of which Full Time	33,247	13,347	35,289	13,615	36,559	13,907
of which Part Time	1,397	7,109	1,498	7,348	1,548	7,277
<b>Total fixed-term</b>	<b>48</b>	<b>45</b>	<b>77</b>	<b>74</b>	<b>68</b>	<b>70</b>
of which Full Time	7	7	6	5	4	2
of which Part Time	41	38	71	69	64	68

### [GRI 102-8a] [GRI 102-8d] Employees on the payroll and agency contract workers, by gender.

	2019		2018		2017	
	Man	Woman	Man	Woman	Man	Woman
Employees on payroll	34,692	20,501	36,864	21,037	38,175	21,254
Agency contract workers	5	0	0	0	0	0

### [GRI 102-8b] Employees by geographic area and gender

	2019			2018			2017		
	Italy	Abroad	Total	Italy	Abroad	Total	Italy	Abroad	Total
Men	29,599	5,094	34,693	31,788	5,076	36,864	33,208	4,967	38,175
Women	15,662	4,838	20,500	16,217	4,820	21,037	16,481	4,773	21,254
<b>Total</b>	<b>45,261</b>	<b>9,932</b>	<b>55,193</b>	<b>48,005</b>	<b>9,896</b>	<b>57,901</b>	<b>49,689</b>	<b>9,740</b>	<b>59,429</b>

[GRI 102-8] Employees of suppliers working at the Group offices and whose activities are part of the core business of TIM<sup>1</sup>

	2019	2018	2017
External FTE on site	528	569	631

[GRI 401-1a]<sup>2</sup> Total number and rate of new hires by age group

	2019		2018		2017	
	No.	%	No.	%	No.	%
<30	1,512	2.67%	1,506	2.60%	1,355	2.20%
>=30; <=50	1,373	2.42%	1,398	2.40%	1,022	1.70%
>50	87	0.15%	59	0.10%	64	0.10%

[GRI 401-1a] Total number and rate of new hires by gender

	2019		2018		2017	
	No.	%	No.	%	No.	%
Man	1,621	2.86%	1,548	2.60%	1,310	2.20%
Woman	1,351	2.38%	1,415	2.40%	1,131	1.90%

[GRI 401-1a] Distribution of hires by geographical area

	2019		2018		2017		Changes (2019/2018)
	No.	%	No.	%	No.	%	
Italy	407	0.86%	374	0.80%	336	0.70%	33
Abroad	2,565	26.33%	2,589	26.30%	2,105	21.50%	(24)
<b>Total</b>	<b>2,972</b>	<b>5.24%</b>	<b>2,963</b>	<b>5.00%</b>	<b>2,441</b>	<b>4.00%</b>	<b>9</b>

[GRI 102-8] Distribution of Group employees by geographical area

	2019		2018		2017		Changes (2019/2018)
	No.	%	No.	%	No.	%	
Italy	45,261	82%	49,167	83%	50,652	84%	(3,906)
Abroad	9,932	18%	9,827	17%	9,780	16%	105
<b>Total</b>	<b>55,193</b>		<b>58,994</b>		<b>60,432</b>		<b>(3,801)</b>

<sup>1</sup> The only core business operations that require a significant working contribution from the employees of suppliers at the company offices relate to the development of IT platforms. The data in the table refers exclusively to these cases.

<sup>2</sup> The KPI tables [GRI 401] show each percentage calculated on the basis of the average number of employees for the indicated area.

## [GRI 401-1b] Total number of terminations and turnover rate by gender

	2019		2018		2017	
	No.	%	No.	%	No.	%
Man	3,789	6.7%	2,858	4.8%	2,539	4.2%
Woman	1,891	3.3%	1,633	2.8%	1,698	2.8%

## [GRI 401-1b] Total number of terminations and turnover rate by age

	2019		2018		2017	
	No.	%	No.	%	No.	%
<30	1,185	2.1%	1,251	2.1%	1,428	2.4%
>=30; <=50	1,713	3.0%	1,518	2.6%	1,434	2.4%
>50	2,782	4.8%	1,722	2.9%	1,375	2.3%

## [GRI 401-1b] Total number of terminations and turnover rate of ex-employees by geographical area

	2019		2018		2017	
	No.	%	No.	%	No.	%
Domestic	3,156	6.7%	2,046	4.24%	1,790	3.6%
Brazil	2,520	26.5%	2,412	25.0%	2,427	18.8%

## [GRI 401-3] Parental leave.

	2019		2018		2017	
	Man	Woman	Man	Woman	Man	Woman
[GRI 401-3b] Employees who benefited from parental leave, by gender <sup>1</sup>	168	559	191	1,129	163	1,166
[GRI 401-3c] Employees who returned after having benefited from parental leave, by gender <sup>2</sup>	*	*	162	445	156	1,158
[GRI 401-3d] Employees at work after a year from the end of parental leave	*	*	135	532	143	1,019
[GRI 401-3e] (return to work rate) Percentage of employees who returned to work after parental leave out of total employees benefiting from leave	*	*	99.4%	79.6%	95.7%	99.3%
[GRI 401-3e] (retention rate) Percentage of employees at work after 12 months from the end of parental leave out of total employees benefiting from leave	*	*	82.4%	84.7%	87.7%	87.4%

<sup>1</sup> Please note that in the table, the year of return of employee x has not been calculated according to the year in which x effectively returned, but according to the year in which x took leave. Therefore, if x took leave in 2018 and returned in 2019, his return is in any case reported in the 2018 column. This is why the data for the 2019 column is still partial and not yet able to be published.

<sup>2</sup> Please note that in the table, the year of continued work of employee x has not been calculated according to the year in which x was at work after 12 months of leave, but according to the year in which x took leave. Therefore, if x took leave in 2017 and after 12 months was still at work in 2019, his continuation at work is in any case reported in the 2018 column. As we do not yet know which of the employees who went on leave in 2019 will still be at work after 12 months, we are unable to calculate the figure for 2018.

\* The data will be available from the end of 2020.

#### [GRI 403-2a] Injuries and occupational diseases <sup>1</sup>

	2019		2018		2017	
	Man	Woman	Man	Woman	Man	Woman
Injury rate out of total workforce* (number of injuries over hours worked)	6.1	3.7	6,1	4,3	6,9	4,3
Days lost over workforce* (days of injury over working hours)	0.2	0.1	0,2	0,1	0,2	
Absenteeism rate out of total workforce** (total hours of absenteeism over working hours)	6.8	11.8	5,5	10,8	5,6	9,4
Occupational disease rate out of total workforce* (number of cases over workforce)	0.1	0.0	0,1	0,0	0,1	0,0

\* Temporary workers are not considered in this type of record. In any case, there were 5 temporary workers in 2019.

\*\* The absenteeism rate is calculated taking into consideration the additional items with respect to those of the GRI 403-2 indicator.

In 2019, a total of 432 accidents, of which 331 involving men and 101 women, occurred in the Group.

[GRI 404-1] 2019 focus charts by type of training related to TIM Group are presented below.

In 2018 and 2017 the survey only concerned TIM S.p.A., shown below for comparison reasons.

#### Environment 2019 - TIM Group

Total hours	9,713
% of total training hours	0.7%

#### Environment – TIM S.p.A.

	Total Hours	Coverage <sup>1</sup>
Year 2018	9,508	9.2%
Year 2017	9,017	7.0%

#### Health and safety 2019 - TIM Group

Total hours	131,989
% of total training hours	9.1%

#### Health and Safety – TIM S.p.A.

	Total Hours	Coverage
Year 2018	135,850	35.7%

<sup>1</sup> The figure includes an accident occurred in 2018 and still ongoing in 2019, uninterrupted.

Year 2017	164,924	42.7%
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## Anti-corruption 2019 - TIM Group

Total hours	10,456
% of total training hours	0.7%

## Anti-corruption – TIM S.p.A.

	Total Hours	Coverage
Year 2018	149	0.5%
Year 2017	16,624	73.6%

## Human Rights 2019 - TIM Group

Total hours	1,791
% of total training hours	0.1%

## Human Rights – TIM S.p.A.

	Total Hours	Coverage
Year 2018	3,284	1.8%
Year 2017	3,883	7.9%

## Privacy 2019 - TIM Group

Total hours	26,489
% of total training hours	1.8%

## Privacy – TIM S.p.A.<sup>1</sup>

	Total Hours	Coverage
Year 2018	13,371	24.4%

## Total Training - TIM S.p.A.

	Total Hours	Coverage <sup>2</sup>
Year 2018	1,249,089	100.4%

<sup>1</sup> The survey concerning only Privacy training started in 2018 in TIM S.p.A.; 2017 data, therefore, does not exist.

<sup>2</sup> Coverage refers to the percentage of participants compared to the total as of 12.31, i.e. the % of human resources who took part in at least one training session.

Year 2017	1,317,426	97.9%
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[GRI 405-2] Ratio of women/men according to basic salary and ratio of women/men according to remuneration, broken down according to each professional category<sup>1</sup>

TIM Group		2019	2018	2017
Senior Managers	GAS	0.93	N.A.	N.A.
	TAR	0.93	N.A.	N.A.
Middle Managers	GAS	0.95	N.A.	N.A.
	TAR	0.93	N.A.	N.A.
Office Staff	GAS	0.84	N.A.	N.A.
	TAR	0.84	N.A.	N.A.

Domestic		2019	2018	2016
Senior Managers	GAS	0.93	N.A.	N.A.
	TAR	0.94	N.A.	N.A.
Middle Managers	GAS	0.95	N.A.	N.A.
	TAR	0.93	N.A.	N.A.
Office Staff	GAS	0.92	N.A.	N.A.
	TAR	0.92	N.A.	N.A.

Brazil		2019	2018	2017
Senior Managers	GAS	0.87	0.80	0.77
	TAR	0.83	0.80	0.85
Middle Managers	GAS	0.95	0.96	0.95
	TAR	0.96	0.96	0.95
Office Staff	GAS	0.69	0.70	0.67
	TAR	0.69	0.70	0.67

GAS = Gross Annual Salary, comprising recurring fixed remuneration.

TAR = Total Annual Remuneration, comprising the Gross Annual Remuneration + bonuses awarded during the reference year (the bonuses may refer to individual or group incentive systems or take the form of special awards or meritocratic policy awards).

Female-Male Pay Ratio at Country Level (RGA)		2019	2018	2017
ITALY		0.81	N.A.	N.A.

<sup>1</sup>For the years 2017 and 2018, in addition to Brazil, data on TIM SpA were provided, available for reference on the Group's website [www.telecomitalia.com](http://www.telecomitalia.com), sustainability section.

BRAZIL

0.62

N.A.

N.A.

## 2019 results and 2020 objectives

### Tim S.P.A.

Area of reference	Indicator	Unit of measurement	Target 2019	Actual figure 2019	Target status 2019*	Target 2020
HUMAN TRAINING RESOURCES	Training on health, safety and the environment	Training hours	90,000	113,135	●	N.A.
HUMAN TRAINING RESOURCES	Training hours per capita	Training hours	30	24.13	●	28
HUMAN TRAINING RESOURCES	Coverage (percentage of employees who participated in at least one training session from the total population)	%	98	94,10	●	95
HUMAN INJURIES RESOURCES	Accidents per 100 workers	Number	0.90	0.90	●	0.85
HUMAN RESOURCES ENGAGEMENT SURVEY	Engagement index percentage increase compared to 2019 survey results	%	N.A.	N.A.	N.A.	

### TIM Brasil

Area of reference	Indicator	Unit of measurement	Target 2019	Actual figure 2019	Target status 2019*	Target 2020
HUMAN RESOURCES	Total training hours	Number	613,581	363,623	●	856,079
HUMAN RESOURCES	Percentage of new hires who were trained in sustainability out of the total of new hires	%	90	93	●	90



## Customers

### Customer satisfaction

[GRI 103-1: Management Approach] [GRI 102-43] [GRI 102-44] The 2019 materiality analysis highlighted the Group's relationship with its customers as a material topic.

[GRI 103-2: Management Approach] [GRI 102-43] The nature of the telecommunications market is increasingly marked by great competitiveness and digitalization which, together with simplification and compliance with customer expectations in terms of content and services, are key elements of the competitive arena.

All this drives companies to change their business models and *customer experience* has become the lever used to compete and the main activity of players who lead in the market with strategic positioning. An excellent *customer experience* is the guiding factor for increasing loyalty and the perceived value of the brand, and in attracting new customers.

In this area, TIM has begun a transformation process focused on improving *customer experience* and strengthening the relationship with the brand. The "TIM around the Customer" project includes various initiatives based on transparency, simplicity and respect for the customer. In this field, improvement plans have been launched with targeted actions and various initiatives that, with the aim of transforming the culture, involve all employees in innovative ways: "make the difference", "idea sharing" and a story about *customer experience* (where employees are the actors).

To drive this transformation TIM has developed an extensive listening system, which picks up on *customer experience* in the different "moments of truth" of the *customer journey*<sup>1</sup>, for example: web browsing, purchasing a service, calling *customer care*, reporting a malfunction, *posting on social media*.

[GRI 103-3: Management Approach] [GRI 102-43] Of the surveys conducted, the monitoring of the *Customer Satisfaction Index* (CSI), based on the ACSI standard (*American Customer Satisfaction Index*), is particularly significant. The aim is to collect information on the quality perceived by TIM customers and customers of the main competitors. Monitoring the CSI has earned certification of conformity with the UNI 11098:2003 standard and has been included in the managerial (*management by objectives*) and collective incentive system.

The 2019 results of the CSI are improving compared to the high levels recorded in 2018 (71.40, +0.3% compared to 2018)<sup>2</sup>. In particular, on fixed broadband consumer (broadband), the increase in the CSI compared to 2018 was 3.1%, thanks to improvement actions with a positive impact on the customer experience. With regards to the mobile market, TIM remains the leader among the "traditional" operators. The ties customers demonstrated with respect to the Group are also seen in the high propensity to loyalty, in an increasingly competitive context where the consumer's experience is enriched through comparison with different markets.

TIM's ever-greater focus on "continuous improvement" of processes and the *customer experience* can also be seen through the *Net Promoter Score* (NPS) of customers who speak with the telephone assistance service, which have been confirmed to be extremely positive (NPS above 10)<sup>3</sup>.

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] In *Brazil*, in 2019 TIM Participações confirmed the significant investments in the development of the digital environment, to improve both the quality of services offered to its customers and customer experience in general. It further enhanced the "My TIM App" channel which, in December 2019, had 9.9 million unique users per quarter and 51 million accesses per month.

The My TIM App evolution process has continued, focused on improving performance and enriching the service portfolio, as shown by the following initiatives:

- SQUAD: agile work began in August 2019 for the development and monitoring of new features and improvements in digital channels;

<sup>1</sup> The *customer journey* is the set of experiences that a customer has when interacting with a company for a specific need, from the first contact with the company, through a specific channel, until, going through one or more touch points provided by the company itself or by other consumers, the expected result is achieved or not.

<sup>2</sup> For mobile+fixed broadband consumer customers, the CSI was 71.80 in 2017 and 71.20 in 2018.

<sup>3</sup> The *Net Promoter Score* (NPS) is an indicator based on international standards and used in various industrial sectors. The NPS is based on the potential recommendation of the operator in relation to the experience accrued. On a scale of 0 to 10, "promoters" are customers expressing votes of 9 or 10, "detractors" are those providing a score of 0 to 6, whereas the rest of the customers are considered as "passive" and are not countered towards calculating the NPS. The NPS is calculated as the difference between the percentages of the "promoters" and "detractors".

- My TIM App: structured planning of actions, both in order to promote the app to new customers and to launch a new in-app communication channel involving already existing users ("Fique por Dentro" - similar to Instagram stories);
- My TIM Website: conclusion of the migration of the main functions to a new version that allows reactive behavior (process started with prepaid customers in 2017);
- Captive Meu Plano (Capture My Plan): relaunch of the web channel platform focused on the prepaid segment, restructuring with usability improvements and launch of new functions;
- Naked portal: improvements in its use as a digital channel for the self-provisioning (self-supply) of customers.

[GRI 103-3: Management Approach] [GRI 102-43] TIM Participações also relates to its customers via twitter, facebook and instagram (the latter was launched in March 2019 and had gained more than 245,000 followers and over 27,000 comments at the end of December 2019). In December 2019, "@TIMBrasil" (<http://twitter.com/TIMBrasil>) counted over 755,000 followers and its facebook page ([www.facebook.com/timbrasil](http://www.facebook.com/timbrasil)) over 2.8 million likers.

In 2012, TIM Participações also activated a further channel "@TIM\_AJUDA" ([https://twitter.com/TIM\\_AJUDA](https://twitter.com/TIM_AJUDA)), which allows to communicate with customers via Twitter. In December 2019, this account had more than 276,000 followers and over 248,000 tweets.

[GRI 103-3: Management Approach] [GRI 102-43] TIM Participações carries out three types of nationwide customer satisfaction surveys, by means of interviews:

- the survey relating to both own consumer customers and competitors' consumer customers - conducted "hot" every month since June 2017 (online panel), with data consolidation every quarter - which measures the general satisfaction of customers with the Company and its contact points (e.g. sales structures, call centers, digital channels, coverage and quality of the technical network and, with regard to internet connections, tariff plans and offers, billing)<sup>1</sup>;
- the Call Center Satisfaction Survey, carried out once a month "cold" through telephone interviews, involving Company mobile customers who have contacted the call center in the last fifteen days. Since June 18, 2018, the sample size of this survey and of the target audience has been reduced, limiting it to the post-paid segment and to call centers dedicated to companies. Since January 19, 2019, the survey has focused only on call centers dedicated to companies;
- The Transactional Survey Call Center is now the main channel for call center surveys as it covers all customer contact activities (front end). This is a transactional survey because TIM's mobile customers (who use the services provided through prepaid, post-paid and "control<sup>2</sup>" channels, as well as companies) evaluate the call center immediately after "contact", via IVR (Interactive Voice Response).

TIM Participações survey type	2019	2018	2017
Consumer customer <sup>(*)</sup>	7.34	7.08	6.95
Consumer mobile telephone call center <sup>(**)</sup>	N/A <sup>3</sup>	7.05	7.81
Business mobile telephone call center <sup>(***)</sup>	6.42	6.95	7.03
Consumer mobile telephone transactional call center <sup>(****)</sup>	7.45	6.15	5.84
Business mobile telephone transactional call center <sup>(**)</sup>	7.72	6.17	5.56

(\*) Average index, on a scale of 0 to 10.

(\*\*) Average mobile consumer customer satisfaction index on a scale of 0 to 10.

(\*\*\*) Average mobile business customer satisfaction index on a scale of 0 to 10.

(\*\*\*\*) Average mobile consumer customer satisfaction index on a scale of 0 to 10.

(\*\*\*\*\*) Average mobile business customer satisfaction index on a scale of 0 to 10.

<sup>1</sup> It involved a group of selected participants who agreed to provide information at set intervals for a long period of time.

<sup>2</sup> A service package offered by TIM, which has the main characteristics of a fixed monthly amount.

<sup>3</sup> The Company decided to suspend this survey in December 2018 and maintain the transactional survey (consumer mobile customer call centers) it was closer to reality, as it was carried out immediately after telephone contact with the customer (the suspended survey, on the other hand, could take place up to fifteen days after contact).

#### [GRI 102-43] [GRI 102-44] Use of social networking in customer care

In recent years, TIM *Customer Relationship Management* has been increasingly focused on the monitoring of new digital contexts, identifying the future of assistance, care and loyalty of its customers in the monitoring and management of *care* contacts obtained from the *social networks* (Twitter and Facebook).

In 2010, TIM launched the *Caring on Social Media* project and, over the years, has built up a new relationship with digital mobile and landline telephone customers, building trust by re-engineering and reviewing processes, developing management systems, extending monitoring times and investing in the training of *social caring* agents.

With the projects already launched in 2017, aimed at both improving the service provided and monitoring quality in 2018, TIM has strengthened its operational model through the use of a new *social tool* platform, for the integrated management of all *touch points*, leading to further development in the operator's functions and in controlling the main performance indicators.

TIM continues with its strategy strongly oriented towards digitization and innovation, also offering new *digital caring* channels to the customers' advantage, who receive personalized and quick answers that improve *customer experience*, loyalty and *engagement*.

At December 31, 2019, TIM's *social caring* team managed 557K *caring* conversations on the Facebook page and 68K on Twitter; in particular, the customer *care* demand on facebook amounted to 156K on the public page and 401K via private message. The main reasons for contact with *digital* customers were requests for clarifications of a commercial, administrative or technical assistance nature.

This has allowed TIM, also in the first months of 2019, to consolidate its leading role on *social networks* and also its digital leadership in the Socialbaker rankings; TIM has positioned itself in first place as a brand in Italy in terms of social channel response time and rate (AMIQ<sup>1</sup> indicator, a parameter calculated taking into account the relationship between the number of managed public posts and the response time of the brand within 24 hours).

The contribution of *social networks* is also important for TIM to enhance and promote the many social, cultural and innovative initiatives, such as the Mausoleum of Augustus project, the dissemination of the TIMHitech 5G project initial results, numerous social issues (especially those overseen by the TIM Foundation) and support for publishing *Corporate Social Responsibility* projects (e.g. the TIM Digital School and TIMSostiene).

All this has allowed TIM to consolidate its position at the top of the various *communities*, created on various *social networks* (Facebook, Twitter, Instagram, YouTube) for its main brands: TIM, TIM Business, TIMvision, TIMmusic, Working Capital, with over 3.9 million *likers and followers*.

From July 2018, through the *Instant Messaging* channel in the new version of the MyTIM app, fixed and mobile consumer customers have the opportunity to interact with customer service in a *smart way*; from 1 January to December 31, 2019, the digital customer care team managed 2.4 million conversations via Instant Messaging.

From November 2018 TIM has also offered the new customer service channel on whatsapp (the first telephone operator in Italy to offer this service). Initially, this assistance service was reserved for TIM Pay customers, the payment tool that integrates telephone service with the innovative "mobile banking" solution (TIM Pay customers can receive dedicated assistance with all TIM fixed and mobile services). It has now been extended to customers with concessions (customers who are blind and deaf)<sup>2</sup>. In future, whatsapp assistance will be progressively rolled out to other customers and/or services, for example sending invoices, notification of payment deadlines and many courtesy activities. From 1 January to December 31, 2019, the digital customer care team managed 25K conversations via the whatsapp channel.

<sup>1</sup> Answered Minus Ignored Questions.

<sup>2</sup> Resolution AGCom No. 46/17/CONS.

#### [GRI 102-43] [GRI 102-44] **Involvement of call center operators**

In 2019, the activities involving call center operators have progressed along the path structured in previous years related to focusing on improving basic knowledge and the process of providing information/training through the TUO portal (acronym for Trova, Usa and Organizza – Find, Use and Organise).

Specifically, the most relevant actions focused on:

- the organisation of ad hoc courses for interested employees using virtual classrooms;
- the implementation of surveys to verify learning, on a monthly basis or based on particular needs, with possible training recovery interventions focused on the most critical issues;
- the dissemination of information with the most relevant news through fixed and mobile consumer *newsletters*;
- the publication of fact sheets and dynamic tables on the most important topics;
- the increase of information sent by email to customers, in support of contact with them.

Moreover, as an absolute novelty in 2019, a weekly gamification on the consolidated knowledge base structure has been implemented for agents, with the aim of making information refreshers more effective through playful dynamics, while avoiding boring and repetitive actions and the consequent cognitive overload.<sup>1</sup>

#### **Self-service area**

In the course of 2018, TIM has introduced actions to raise awareness and encourage the wider use of the MyTIM private area of the tim.it website, which through registration allows some types of requests to be forwarded in a simple and direct way (subject of further development).

This allows customers to avoid having to make written requests, leading to economic and time savings, and to monitor the progress of the issue. Some types of requests, such as direct debits, can be immediately carried out through automatic processing.

#### **PEDIUS - Managing calls for the hearing impaired**

Also in 2019, in addition to the new whatsapp channel, customers who are deaf could use the PEDIUS service, which allows access to TIM's *call centers*, in addition to the usual channels. The trial phase was launched in September 2014:

- is available to all customers on app stores (both Apple and Android);
- aims to ensure that inbound contact is accessible to hearing-impaired customers through an app that allows normal calls to be made using voice synthesis and recognition technology.

#### [GRI 103-2: Management Approach] [GRI 102-44] **Customer Satisfaction in incentive systems**

TIM's managerial (*Management by Objectives*) and collective (performance bonus) incentive systems include objectives associated with customer satisfaction indicators in keeping with the business plan for the current period. The targets are made up of several aspects corresponding to different market segments. Further details are available in the "TIM People" paragraph of this report.

<sup>1</sup> It consists of applying typical elements of gaming (e.g. scoring, competition with others, game rules) to other areas of activity, generally as an online marketing technique to encourage involvement with a product or service.

## Conciliation procedures

[GRI 103-1: Management Approach] [GRI 102-43] [GRI 102-44] The 2019 materiality analysis highlighted the Group's relationship with its customers as a material topic.

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] The conciliation procedure between TIM and the consumer protection associations who signed the framework agreement for the out-of-court settlement of telephone disputes, was the first example of joint conciliation in Italy (operational in 1993 throughout the national territory). In 2011, the European Parliament recognized "Italian joint conciliation" as an example of best practice based on the protocol signed by the Company and Consumer Associations, where the Company undertakes to use an alternative procedure to resolve disputes that may arise between company and consumer, known as "*Alternative Disputes Resolution*" (ADR). In December 2019, 22 consumer associations signed up to the conciliation agreement, 19 of which registered with the CNCU (National Council of Consumers and Users), an organisation representing consumer associations - chaired by the Italian Ministry of Economic Development - with the task of contributing to improving and strengthening consumer satisfaction levels. In 2016, on entry into force of Legislative Decree No.130/2015, implementing European Directive No. 2013/11/EU, the Italian legislator made an important choice by counting "joint conciliations" in ADR procedures, completely reforming the original Art. 141 of the Consumer Code. By virtue of this new European and national regulatory framework, the TIM-Consumer Association Joint Conciliation Procedure was:

- recognized as an "ADR Body" possessing the requisites of stability, efficiency and impartiality required by the regulatory framework;
- registered on the list of recognized ADR Bodies, established by the AGCom (Italian Communications Authority) on June 30, 2017.

The basis for the dissemination and success of the conciliation procedure is:

- it is a free model;
- speed of the process;
- the mandatory requirement to seek recourse to conciliation as a prerequisite for judicial requests to proceed.

Undoubtedly, conciliation is successful also thanks to the good relationships built up and maintained over the years with consumer associations which, as stakeholders of the Company, have always provided a wealth of useful information on critical consumer issues to the company through their contributions.

Following the establishment of the ADR Body, there was a revision of the Joint Conciliation Regulation and the application methods of the unitary conciliation protocol established between TIM and the Consumer Associations registered at the CNCU. The protocol is considered unitary because it serves as a common basis for other telecom operators (Vodafone, WindTre, Fastweb). It includes procedures and guidelines to be applied in order to guarantee a comprehensive harmonization for end consumers. The ADR Body, established in compliance with the provisions of Art. 141 ter of the Consumer Code, is established at the TIM headquarters.

A new collaboration agreement (already partly presented in December 2019) with some of the main Associations – those who are most collaborative, involved and engaged in debates on electronic communication – will be launched by 2020, with the aim of more effectively combining the interests of the company with the needs of consumers. In this respect, thanks to this agreement great emphasis will be placed on strengthening the dialog concerning the most sensitive issues for the consumer, such as the new 5G technology. In addition, and again with the aim of best consolidating the agreement between the Associations and the Operator, the introduction of a new channel for handling consumers' complaints addressed to TIM and submitted to the Consumer Associations has been guaranteed.

Since 2009, in compliance with the voluntary undertakings given and approved by the AGCom in 2008, TIM has also been managing conciliation requests at Co.Re.Com (Regional Communication Committees) and Chamber of Commerce offices (until June 2018), replicating the organizational model successfully applied for joint conciliations. In this way, customers can choose to use the consumer associations or take advantage of alternative paths through Co.Re.Com to settle any disputes with the Company out of court.

In light of Resolution 203/18/CONS "Approval of the regulation on dispute resolution procedures between users and operators of electronic communications", from July 2018 AGCom has introduced the new conciliation management

system "ConciliaWeb", developed by the Authority which had also established procedures for the on-line presentation and management of the conciliation event for customers.

Beyond the choice of procedure by the customer, the underlying aspect of the conciliation is always the customer's needs, making it possible to build up a good relationship between the customer and the Company.

[GRI 103-3: Management Approach] [GRI 102-43] [GRI 102-44] To date, the conciliation model has achieved high qualitative and quantitative results; specifically, in 2019 the use of the Co.Re.Com channel continued to see significant figures, accounting for 72.5% of the conciliations discussed, while the Joint channel accounted for 27.5% of the requests discussed (the Chamber of Commerce channel was closed in July 2018).

The positive trend seen in the conciliation system in previous years continued in 2019 (albeit with a significant increase in the number of cases discussed, equal to 68,465, an increase of 16.4% compared to 2018); in fact:

- 97% of the applications for joint conciliation (18,249 conciliated out of 18,820 discussed), a stable percentage year on year despite an increase in the applications discussed again this year (+11.6% compared to 2018);
- 83.3% of the requests discussed at the Co.Re.Com (41,372 reconciled out of 49,645 discussed). This percentage remained high in 2019, also considering the 19.5% increase in the cases discussed compared to the previous year (41,554 in 2018).

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] TIM supported the conciliation activity through:

- the seminars and joint training initiatives involving dedicated personnel from TIM, AGCom, Co.Re.Com. and Consumer Associations;
- the debates, conferences, interviews and the other promotional activities involving senior management in order to disseminate the correct cultural approach to the subject.

Conciliation is becoming increasingly widespread among customers, particularly in view of the:

- better knowledge of the procedure (both joint and conciliaweb) which is considered to be a quick and economical way of resolving disputes;
- economic crisis that leads to conciliation even for marginal amounts;
- the widespread territorial presence of Co.Re.Com and the various Consumer Associations, able to bring the conciliation tool increasingly closer to the local needs of consumers.

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] In **Brazil** TIM Participações has close relations with the Agencies that are part of the consumer protection system, such as ministries, public defenders and legitimate civil protection entities, which promote the culture of good relationships between companies and their customers, including SENACON<sup>1</sup> and PROCONS<sup>2</sup>; TIM Participações also participates in the Conciliation Forum, which promotes dialog between companies and consumer protection agencies, with the aim of resolving disputes, managing workshops with consumer protection authorities for company employees and taking part in external events to improve the quality of service offered to its customers.

TIM Participações is the Brazilian operator with the penultimate number of complaints in PROCONS, part of the SINDEC, the national consumer protection Information System (source: SINDEC of SENACON official report).

[GRI 103-3: Management Approach] [GRI 102-43] [GRI 102-44] In 2014 SENACON launched the Consumidor.Gov.br platform service for the mediation of conflicts, which facilitates the resolution of customer complaints and makes PROCONS' work easier. TIM Participações was one of the first companies to join the aforementioned platform, through which customers can also report whether the complaint has been resolved or not and the quality of the response provided by the company. In 2019, the average customer satisfaction score of TIM Participações, who used the aforementioned platform service, was 4 on a scale of 1 to 5.

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] Also in 2014, following an ANATEL resolution, TIM Participações has established its own Users' Council, which aims to offer solutions to improve the quality of the services provided. In 2017, the Users' Council, together with the Public Defence Department, created a new conciliation channel - Canal 0800 Defensoria Pública - which aims to reduce complaints in court, through a direct channel of communication between the Public Defenders and TIM Participações. In 2018, this channel was made available to Public Defense

<sup>1</sup> National Secretariat for Consumer Protection.

<sup>2</sup> Consumer Protection Programme.



departments of 23 Brazilian state capitals; in 2019, the objective was to extend it to the main cities in the country's interior with a consumer protection office within the Public Defence department.

In 2018, the Users' Council begun dissemination activities through which retail sellers - after introducing the TIM Participações service channels - started teaching customers how to download the Consumidor.Gov.br application on their smartphones. this activity has already been implemented in six states and in 2020 the objective is to roll it out in six other states; In addition, training courses for PROCONS employees and Public Defenders, about TIM Participações services (invoicing, credit top-up, plans) were held to reduce the number of complaints. In particular, in the north-eastern region, PROCONS employees have begun to promote TIM Participações' *Meu TIM* application.

In 2018 the National Forum of Users' Councils was held, too, during which the ANATEL "Letter of Brazil" was established: 42 proposals were put forward by the Presidents and Vice-Presidents of the Users' Councils of telecommunications companies which they undertook to observe. After replying to the proposals, TIM Participações received positive feedback about them from ANATEL, which commented that:

- TIM Participações' participation in the majority of the proposals was expected, highlighting that "TIM's Users' Council is differentiated and fully functional";
- TIM Participações was the company that registered the highest percentage of participation in the proposals (90.48%).

With regard to accessibility, in 2019 TIM continued to disseminate the Consumer Protection Code in Braille and Libras (Brazilian sign language) through the Users' Council website and Council meetings. The Users' Council also launched the information guide for users of digital and Braille telecommunications services and promoted the installation of the Giulia application, which provides accessibility for people who are deaf and is considered a social action by both consumer protection agencies and other public agencies related to the sector.

[GRI 103-3: Management Approach] [GRI 102 -43] [GRI 102-44] In 2019, too, TIM achieved excellent results in settling claims submitted by PROCON offices: CIPs (Preliminary Investigation Letters) 79%; 76% were justified complaints (source: SENACON official report).

## Certifications

[GRI 102-12] For the areas of the Company which have a significant impact on the various stakeholders because of the products and services they offer, the Group has obtained and/or confirmed certifications that ensure that procedures and conduct are in line with the stakeholders' expectations.

The certifications achieved and/or confirmed at December 31, 2019 related to some of the Group's activities and/or companies:

- quality of products and services offered: UNI EN ISO 9001 standard;
- environmental protection: UNI EN ISO 14001 standard;
- general requirements for the competence of testing and calibration laboratories: ISO/IEC 17025 standard;
- health and safety at work: BS OHSAS 18001 standard;
- Information Technology services: ISO/IEC 20000-1 standard;
- information security: ISO/IEC 27001 standard;
- information security risk management<sup>1</sup>: ISO/IEC 27005;
- management system for the prevention of active and passive bribery (ISO 37001);
- efficient energy management: standard ISO 50001;
- the ability of a data center to guarantee continuity of the services provided: ANSI/TIA regulation <sup>2</sup>-942;
- security for credit and debit card transactions and cardholders protection from improper use of personal information: PCI/DSS standard<sup>3</sup>;

<sup>1</sup> Supporting the information security management system requirements (ISMS) according to ISO/IEC 27001.

<sup>2</sup> American National Standards Institute/ Telecommunications Industry Association.

<sup>3</sup> Payment Card Industry Data Security Standard.



- fulfilment of the AGID (Digital Italy Agency) requirements to perform the role of:
  - ✓ Accredited Operator for Certified Email;
  - ✓ Accredited Custodian for storing electronic documents pursuant Italian Legislative Decree 82/2005;
  - ✓ Accredited digital identity manager for SPID services (public service manager) pursuant EU Regulation 910/2014;
  - ✓ Qualified trust service providers for the issuance of eIDAS qualified electronic time stamps (EU Regulation 910/2014).

In **Brazil**, as required by ANATEL (National Telecommunications Agency, the Brazilian telecommunications authority), *KPI Survey Method Quality Certificates* were also achieved for the whole Country regarding:

- personal mobile services (TIM S.A.);
- switched fixed telephone services (TIM S.A.);
- multimedia communications services (TIM S.A.).

Detailed information about the certifications achieved by the various functions/companies of the Group can be found in the sustainability section of the [telecomitalia.com](http://telecomitalia.com) website.

## Child protection

[GRI 103-1: Management Approach] [GRI 102-2b] The 2019 materiality analysis highlighted - for the TIM Group - the online protection of children (cyberbullying, child pornography, gambling<sup>1</sup>), as a material topic.

[GRI 103-2: Management Approach] [GRI 102-2b] Group Companies have undertaken numerous initiatives to protect children from content that may harm their psychological and physical development (for example, content that is violent, racist, offensive to religious sentiment, etc.).

Adult services come under value added services, also called premium or content-based services, and can be supplied by TIM or external companies that own the content via SMS, MMS or mobile internet services (WAP - wireless application protocol), which can be activated, received and/or used on mobile phones, tablets and PCs. From its activation, the TIM card is already enabled to use value added services with adult content, with the exception of TIM cards registered to minors, whose adult-content services are disabled.

The Group – in accordance with current regulations – provides the customer with a series of tools to protect minors from accessing the sensitive content provided; TIM constantly updates and communicates these tools to the customer, through its own information channels (including the 119 customer service and the website [tim.it](http://tim.it)). The tools to protect minors currently available to customers are:

- permanent restriction (*black listing*) of mobile users from accessing adult content;
- adult content provided on the TIM mobile portal (“TIM WAP”) can only be accessed by entering a code (adult content PIN) on the user’s mobile device, which is different from all other codes used on the device itself in order to prevent minors from accessing said content. The customer is provided with the adult content PIN confidentially, and is responsible for its proper use and safeguarding;
- customers can ask for their mobile number to be *black listed* only for sensitive content other than adult content at any time via TIM’s usual information channels.

Further information regarding the activation and deactivation of the above protection tools is available at [tim.it](http://tim.it), from Customer Services on 119 and from authorized TIM retail outlets.

The TIM-Protect solution is the exclusive TIM option for total protection against web threats:

- *parental control*: protects young people while surfing the Net, filters web searches, gives warnings in the case of behavior that is judged to be dangerous, allows you to block access to sites or apps or limit their use (maximum usage time setting);

<sup>1</sup>Gambling.

- theft protection: protects the device from loss and/or theft, ensuring remote control by sending a simple instruction (block device, find device, delete data, SIM change notification);
- *protection and privacy*: protects all access to e-commerce, home banking and social media websites. Ensures privacy by filtering unwanted calls and messages;
- antivirus: manages the device securely without affecting its operation, protecting it during use against viruses, malware<sup>1</sup> and other threats.

The Company is particularly focusing attention on parental control, with the launch of offers dedicated to the younger generation (under 12s) with the TIM Protect service included, at no additional cost. The Company is also implementing co-marketing<sup>2</sup> initiatives with certain operating partners in the “kids” segment, which is particularly sensitive to matters of child protection. [GRI 103-3: Management Approach] [GRI 102-2b] At the end of December 2019, 142,764 TIM Protect had been activated.

TIM is constantly looking for ways to develop its offer portfolio to meet customer needs; among other things, an annual offer with a TIM Protect license has been available to customers since May 2018.

TIM also wants to help customers to make the best use of the TIM Protect service and, from October 2018, it made a freephone number 800 500 500 available; through this, an operator can give the customer step by step assistance and maximum support in the installation and use of the TIM Protect service.

Since September 2, 2019 TIM has launched a new, clearer and simpler *landing page* for the TIM Protect service, to provide customers with a better user experience.

[GRI 103-2: Management Approach] [GRI 102-2b] In terms of tackling online child pornography and computer crime, from an organizational perspective, TIM has established – within the Security Department and, specifically, as part of the Security Operations Center (SOC) – the role of “Key Contact for the Postal Police”.

This person manages relations, and the flow of information, with the Postal Police<sup>3</sup> and the competent authorities, and has the task of coordinating, within the TIM Group, the process of abuse management, in accordance with the relevant legislative framework. Furthermore, TIM has adopted an organizational and management model pursuant to Legislative Decree 231/2001, aimed at preventing offenses that may result in liability for the Company.

TIM has deployed resources, technologies, processes and tools to prevent and tackle “abuse”, i.e. any activity committed in violation of the rules of conduct and the legislation that governs the use of network services, digital systems or means of communication in general. The SOC oversees the following initiatives and activities:

- form available on TIM’s corporate and commercial portals, which can be used by TIM’s customers, or by outside users, to report any crimes involving child pornography encountered while browsing the internet. There is a guide to completion, and reports can also be submitted anonymously. This activity is managed in collaboration with the Assurance Competence Center, under Open Access/Wholesale, which receives reports and forwards them to be managed by the SOC;
- management of the abuse desks, operational groups that handle abuse differentiated by type of service (set up in accordance with national and EU regulations on child protection), the prevention of cybercrime and the fight against sexual exploitation (child pornography). The abuse desks receive reports from external users/customers on alleged cybercrimes or the presence of child pornography on the Group’s networks, then direct them to the relevant department, where necessary involving the relevant authorities (through the Key Contact for the Postal Police);
- filtering: in accordance with the implementing Decree of Law 38/2006 (Gentiloni Decree) which defines the technical prerequisites of filtering tools that providers of Internet network connections must use in order to prevent access to sites identified by the Postal Police through the CNCPO, TIM has also introduced a filtering system for foreign websites with child pornography content;

<sup>1</sup> Software created to compromise the security of a computer or IT systems and devices. The term is a combination of the words malicious and software.

<sup>2</sup> Commercial agreement between companies that have the same objective, are not in direct competition and decide to coordinate their marketing activities.

<sup>3</sup> CNCPO -National Center for the Fight against Online Child Pornography, CNAIPIC – National Center against Digital Crime for the Protection of Critical Infrastructure.

- gambling: in accordance with Article 1, subsection 50, of Law 296/2006 – on tackling tax evasion and tax avoidance in the gambling sector – and at the request of the Italian Autonomous Administration of State Monopolies (AAMS), TIM blocks the resources as and when they are reported, making them inaccessible to customers;
- tobacco (liquid products containing nicotine intended for inhalation without combustion) in compliance with Article 1, subsection 50-bis and 50-ter of Law 296/2006, and with Executive Decree No. 124538 of 15.11.2017, which integrates the provisions of Directorial Decrees of 01/02/2007, 5/29/2007 and 6/10/2008, at the request of the Customs and State Monopolies Agency (AAMS), TIM blocks the resources as and when they are reported, making them inaccessible to its customers.

Moreover, TIM participates in the following initiatives:

- “GSMA - Mobile Alliance against Child Sexual Abuse Content” in the context of the GSM Association, for technological, policy and communications initiatives aimed at protecting children in the mobile phone sector;
- *Alliance to better protect minors online*, platform launched by the European Commission as part of the *Better Internet for Kids* (“BIK”) strategy for defining and implementing the principles and technologies required to make the internet a safer place for children;
- *Safer Internet Center (SIC) – Connected Generations* (national center for promoting safe and positive use of the internet and digital technologies, co-financed by the European Commission as part of the *Connecting Europe Facility* and coordinated by the Italian Ministry of Education, Universities and Research), where it is a member of the *Advisory Board*. In 2019 TIM continued its digital educational activities through the *ScuolaDigitale* TIM project;
- “Convention for implementing a device to generate Missing Child Alert” launched with the Italian Ministry of the Interior, Department of Public Security.

Moreover, the Group has activated appropriate filtering and abuse prevention systems, including for services provided in **Brazil**: images, backgrounds, video streaming, audio content (podcasts) together with brief erotic information via SMS and images via MMS (in partnership with a content provider). Customers can buy adult content services (wallpapers, videos, podcast) through the WAP portal main page and, to access, they must click on “ADULT” (available on the main page of the portal), declare that they are of age and insert a password. TIM Participações restricts the portfolio of adult content to level 3.2 of the international classification.

## Product responsibility

[GRI 103-1: Management Approach] [GRI 416] [GRI 417] [GRI 419] The 2019 materiality analysis confirmed customer relations quality as a material topic which, for the TIM Group, also incorporates responsibility for the products and services offered.

[GRI 103-2: Management Approach] [GRI 416] [GRI 417] [GRI 419] TIM is primarily an operator of telecommunications services, which do not endanger the physical health of users<sup>1</sup>, and it does not produce the telecommunications equipment it sells.

In order to verify that the products placed on the market comply with health and safety legislation, the Company has:

- appropriate internal structures that check the incoming quality of the products it markets (fixed and cordless telephones<sup>2</sup>, access gateways<sup>3</sup>, etc.), both in Italy and in the production centers of manufacturers overseas;
- laboratories that test the products marketed by the Group, particularly as regards the electromagnetic emissions of the mobile devices<sup>4</sup>.

In this way, any non-conformities of products are detected prior to their market release, ensuring that products that do not conform with the essential requirements of the European Directives do not reach the end customer.

Services provided to customers are subject to the requirements set out in the Service Charters and in the Terms & Conditions of Subscription, available at [telecomitalia.com](http://telecomitalia.com).

[GRI 103-3: Management Approach] [GRI 416] [GRI 417] [GRI 419] This paragraph describes the management approach assessments for each of the above mentioned Standards, with the relative methods used and results.

[GRI 416-1] In its laboratories, TIM validates the satisfaction of the essential requirements envisaged by the current Directives for the release of CE marking; conformity with these requirements is certified at source by the manufacturer. For products sold in Italy, the reference framework is the set of standards that support RED Directive 2014/53/EU, EMC Directive<sup>5</sup> 2014/30/EU, and Low Voltage Directive 2014/35/EU, divided by product macro-family<sup>6</sup>.

In relation to electrical safety in the use of equipment by customers, as required by the Low Voltage Directive 2014/35/EU, TIM carries out checks on the technical provisions introduced to reduce the risk of electrocution, overheating, fire and mechanical hazards, by applying standards EN 60950-1, EN 60065 and EN62368-1.

Furthermore, TIM checks:

- energy efficiency aspects, required by Directive 2009/125/EC ErP (Energy-related Products), as equipment placed on the market, are checked against the stand-by/off-mode power consumption and performance limits set by European Regulations 1275/2008/EC, 801/2013/EC and 278/2009/EC, for equipment and their external power supplies (available as accessories);
- device functionality under various environmental conditions of terminal installation and use including potential accessory components for connection to the fixed network is checked. Checks are carried out in compliance with temperature and humidity ranges established by ETSI (European Telecommunications Standards Institute) standards for the specific “service condition”, on which different “severity” levels are based. The checks are carried out based on the provisions of the ETSI EN 300019 standards, with the tests set out under IEC-EN series 60068-2-1 (cold), 2 (dry heat), 14 (temperature changes), 30 (moisture changes), 78 (continuous humidity);
- electromagnetic compatibility, regulated by Directive 2014/30/EU, since unintentional electromagnetic signal emissions are checked – to avoid interference that can harm radio communication – and to fulfil certain electromagnetic interference immunity requirements. In TIM, constant checks are carried out on terminals and

<sup>1</sup> Threats of a psychological, security and privacy nature are dealt with in the paragraphs Protection of Minors, E-security, Privacy.

<sup>2</sup> Wireless.

<sup>3</sup> Concentrator for voice, data and video traffic of residential customers on telecommunications networks for private use.

<sup>4</sup> In 2019, ten mobile network devices were checked in TIM laboratories.

<sup>5</sup> *Electro Magnetic Compatibility*.

<sup>6</sup> For “Corded terminals” (connected with a cord), the following standards may be applied: EN 55022 and EN 55024, EN 55032, EN 55035, EN 60950 and EN62368-1; for “Cordless terminals” (wireless), standards EN 301489-1, EN 301406, EN 50371, EN 60950-1, EN 62311 and ITU-T P360; for “mobile terminals (smartphones, data cards etc.)”, standards EN 300328, EN 300440, EN 301489, EN 301511, EN301893, EN 301908, EN 302291, EN 60950-1 and EN 62209.

network equipment to determine whether they comply with the requirements of international ETSI, CENELEC<sup>1</sup> standards regarding electromagnetic compatibility. In particular, checks are carried out on the compliance of equipment with the limits set by standards to limit the emission of electromagnetic disturbances which, in addition to polluting the surrounding environment, can interfere with radio communications.

To promote sustainable development in its areas of influence - in addition to the mandatory requirements for electrical safety law, energy consumption and EMC on marketed equipment, TIM also carries out checks on electrical (in compliance with the series K ITU-T<sup>2</sup> Recommendations) and mechanical robustness (in compliance with the installation classes required by the European standard ETSI EN 300019) requirements, so as to reduce waste disposal of electrical and electronic waste (WEEE) from the very beginning. Ensuring equipment placed on the market of has an adequate level of electrical and mechanical robustness, in line with the expected stress in the field, reduces the rate of equipment failure and, therefore, the quantity of waste to be sent to the appropriate disposal facilities. The addition of these robustness requirements, also within TIM apparatus specifications, requires the manufacturer to use adequate protection devices on the electrical interfaces of devices, such as overvoltage and overcurrent limiters, with the consequent reduction in the number of destructive failures; with such technical expedients, it follows that equipment functionality can be easily recovered by replacing a few components in repair centers.

[GRI 103-2: Management Approach] [GRI 416] [GRI 417] By law, telecommunications equipment sold in **Brazil** must be approved by the regulatory authority ANATEL, which verifies, in its laboratories, conformity with Brazilian legislation on electrical and electromagnetic safety. There is specific *ad hoc* legislation to be complied with for each kind of equipment; TIM Participações asks its suppliers to ensure that devices have the ANATEL certificate of approval.

[GRI 416-2] Over the past three years, no non-conformities with European customer health and safety legislation have been found in any product that has reached the final marketing stage, neither in Italy nor in Brazil.

[GRI 417-1] When contracts are drafted, for all fixed telephony products, TIM requires packaging to include an environmental statement, a statement about the origin of the tantalum if it has been used in the components, a user manual containing safety information, details of any hazardous materials in the product and disposal information. With regard to labelling of mobile devices, as they are consumer products that TIM merely resells and do not require any customization, the Company simply requires national legislation to be complied with.

[GRI 417-1] In **Brazil**, in addition to compliance with national legislation, TIM Participações requires information on the correct use of equipment; TIM Participações does not have the procedures on the information and labels on products and services. However, contracts with suppliers of mobile devices include a 'product packaging' clause, which requires that each box contain instructions for the correct use of both the product, the accessory kit and of the connection jacks associated with the product.

For a particular product range, TIM eco-friendly, discussed in detail in the Environment chapter (*TIM ecofriendly*), all the relevant environmental parameters are also shown (e.g. energy consumption).

[GRI 417-2] Over the past three years, no non-conformities regarding product information and labelling have been found in any product that has reached the final marketing stage (100% tested for fixed and mobile terminals).

There have however been a few cases in which non-conformities with regulations concerning information and "labelling" of services have been found. In particular, TIM Participações has only received financial penalties; that is, in 2019 four incidents occurred for which ANATEL issued total penalties of 247,132 reais, in 2018 three incidents occurred for total penalties of 397,009 reais and in 2017 13 incidents occurred for total penalties of 896,730 reais (in respect of the guarantees and rights to protect users)

The regulatory Authority's sanctioning procedures for non-conformities with regulations regarding information on services are part of the system of "penalties for the violation of regulatory legislation regarding consumer protection in

<sup>1</sup> European Committee for Electrotechnical Standardization.

<sup>2</sup> International Telecommunication Union - Telecommunication Standardization Sector.

the supply and use of TLC products and services”; this means that, for Italy, non-conformities regarding information on services have been merged with non-conformities regarding the supply and use of services (table below).

[GRI 419-1] Number and value total cash in fines – by the Italian Antitrust Authority (AGCM) – for non-compliance with laws and regulations concerning the supply and the use of products and services in Italy.

Description	2019 <sup>1</sup>	2018 <sup>2</sup>	2017 <sup>3</sup>
Number of fines for non-conformities regarding the supply and use of products and services	1	3	3
Total monetary value of these fines (in euros)	200,000	6,600,000	2,350,000

[GRI 419-1] Number and total value of fines - by AGCom (National Telecoms Regulator) - for non compliance with laws and regulations concerning the supply and the use of products and services in Italy.

Description	2019 <sup>4</sup>	2018 <sup>5</sup>	2016 <sup>6</sup>
Number of fines for non-conformities regarding the supply and use of products and services	2	10	3
Total monetary value of these fines (in euros)	1,664,000	4,027,000	1,422,000

<sup>1</sup>The fine relates to a proceeding initiated and concluded in 2019 whose sentence was to pay 200 thousand euros for misleading advertising for the Fibra offer. Three proceedings were opened in 2019; one, for winback actions and pre-activated services, ended in January 2020 with a sentence to pay €4,800,000, the other 2 proceedings are still pending (expected end date: May 2020).

<sup>2</sup> In 2018 AGCM closed three proceedings, two initiated in 2017 and one in 2018. Of the proceedings initiated in 2017, one ended with a fine of 4.8 million euros (misleading advertising messages for the TIM Smart Fibra offer) and one was archived. The third proceeding, started in 2018, ended with a fine of 1.8 million euros (unfair commercial practices in recovery actions<sup>1</sup>).

<sup>3</sup> In 2017 AGCM opened five proceedings against TIM, one of which closed with undertakings (accepted by AGCM on a proposal from TIM), two with fine (one of 300,000 euros for non-compliance with Judgement 10,246 and the other of 50,000 euros for non-compliance on oppressive clauses) and two to close in 2018 (one for misleading advertising of the TIM Smart Fibra offer and the other for breach of domicile provision for dispatching invoice by e-mail). In July 2017 the procedure on the right to rethink, initiated in 2016, ended with fine of 2,000,000 Euros.

<sup>4</sup> The two fines relate to a proceeding started in 2018 that ended with an order to pay 1.2 million Euros for failure to issue a 37/18/CONS warning, and a proceeding started in 2019 that ended with an order to pay 464 thousand Euros for the TIM Safe WEB services offered to Business customers. Two other cases were opened in 2019 and remain pending at the beginning of 2020.

<sup>5</sup> In 2018 AGCom completed ten proceedings, of which five had started in 2017 and five in 2018. Of the ten cases, one was closed with a settlement offer and the other nine with fines, i.e. 170,000 Euros for failure to carry out portability and migration procedures; 1,160,000 Euros for unclear and incomplete information on the available basic rate plans; 58,000 Euros for violating compliance of minimum US (Universal Service) quality objectives; 116,000 Euros for violating transparency and spending control; 696,000 Euros for billing cycles violation; 87,000 Euros and 232,000 Euros transparency violation; 464,000 Euros and 1,044,000 Euros for violating the *ius variandi* law (presumption of harassment).

<sup>6</sup> In 2017, AGCom started eight proceedings against TIM of which:

- one ended with archiving;
- two concluded with fine (one of 30,000 euros for breach of the regulations on access, the other 1,160,000 euros for breach of the regulations on billing cycles);
- five to close in 2018 (non-execution of migration/portability procedures, lack of information on basic plans and passage free of charge toward the mobile price plans, violation of quality obligations laid down by AGCom Resolution, breach of art.1 subsection 31 Law 249/97, violation of transparency legislation).

In 2017, the proceedings started in 2016 for breach of the quality obligations laid down by AGCom Resolution were completed, with fine of 232,000 euros.

[GRI 419-1] The number and total monetary value of the fines for non-conformities with laws and regulations regarding the supply and use of products and services in **Brazil**, imposed by ANATEL.

Description	2019 <sup>1</sup>	2018	2017
Number of fines for non-conformities regarding the supply and use of products and services	0	9	4
Total monetary value of these fines (in reais)	0	180,123	2,467,722

[GRI 417-3] Overall number of nonconformities with legislation and voluntary codes regarding marketing communications in Italy.

Type of non-conformity	2019	2018	2017
Number of non-conformities with legislation resulting in a fine or penalty	0	0	0
Number of non-conformities with legislation resulting in a warning	0	1	0
Number of non-conformities with voluntary codes <sup>2</sup>	0	2	1

[GRI 417-3] In Brazil the only notifications relating to advertising and marketing communications are issued by CONAR<sup>3</sup>, a non-governmental self-regulation organisation for advertising which assesses non-conformities with the Brazilian Advertising Code of Conduct (“CBAP”) and can recommend that the company change/correct or suspend the advertising (it does not impose financial penalties); CONAR seeks to ensure that each advertisement is true, honest, and compliant with the laws of the country and the principle of fair competition. The infringement proceedings may be closed if the parties reach a settlement, if the perpetrators cease the infringement or if the violation of the Code of Ethics has not been demonstrated.

In 2019 TIM Participações received eight notifications from CONAR (three promoted by competitors Claro and Nextel and five by CONAR), to which it expressed its opposition. CONAR has ordered the closure for three cases and a marketing modification for three other cases; in one case the parties reached agreement, while in the last case the parties reached a partial agreement for which they are awaiting a decision.

ANATEL can impose fines or warnings in the event of non-compliant “general marketing communications”. In 2019, ANATEL did not impose such sanctions on TIM Participações, while it had imposed a sanction of 280,984 reais in 2018 and one of 70,471 reais in 2017 (the latter two related to unclear Company business information).

<sup>1</sup>Taking only significant fines into consideration, i.e. those exceeding 500,000 reais, TIM Participações did not receive any during 2019. TIM paid two fines in 2019; the first of 11,484,107 reais, ordered by an agency that protects consumer rights, for non-compliance with customer service standards (call center). The other was of 244,551 reais, imposed by another agency as a result of various customer complaints (contracts, invoicing, etc.).

<sup>2</sup> The cases are regulated by the Institute of Advertising Self-Regulation, which operates in compliance with the code of commercial communication and is competent in defining all disputes relating to advertising involving the associated subjects, directly or indirectly. Jury's decisions do not involve financial penalties but, if required, a withdrawal order of the contested marketing message.

<sup>3</sup> Conselho Nacional de Autoregulamentação Publicitária.



## Safeguarding privacy and personal data protection

[GRI 103-1: Management Approach] [GRI 418] The 2019 materiality analysis identified the safeguarding of privacy and personal data protection as a material topic for the Group.

[GRI 103-2: Management Approach] [GRI 418] Respecting privacy regulations is a priority for TIM, which since 2003 has had a structured organizational model in place which is capable of overseeing the correct application of this legislation at Group level. Company departments are committed to ensuring the correct processing of personal data of data subjects, including customers and employees, in carrying out business activities.

In May 2018, the Data Protection Officer function was established at TIM Group level, dealing with control, consultation, training and information regarding the application of privacy legislation, in compliance with the specific provisions of Regulation (EU) no. 2016/679 on the protection of individuals with regard to the processing of personal data (so-called "General Data Protection Regulation," or GDPR), applicable in Italy and in the other countries of the European Union from May 25, 2018.

The GDPR is the primary source of the applicable regulatory framework on data protection in Italy and the Personal Data Protection Code (Legislative Decree 196/2003, as extensively amended by Legislative Decree 101/2018) now contains the national provisions completing those of the GDPR.

The adoption of legal measures and the instructions of the Italian Data Protection Authority for personal data protection is assured by constantly updating the Group regulations and policies. Of these, the "System of rules for the application of the regulations relating to the protection of personal data in the TIM Group" (System of Rules) is particularly important; it defines the provisions and operating instructions to comply with these provisions.

Already in the course of 2018, the System of Rules was thoroughly revised in the light of the application of the GDPR; in 2019, the System of Rules was further updated with reference to regulatory developments, in particular in relation to Legislative Decree 101/2018, which adapted the Privacy Code to the GDPR, and to the additional provisions of the law and the Italian Data Protection Authority's Decisions that followed during the year.

In 2019, the work continued to adapt policies and procedures, including those setting out *data breach*<sup>1</sup> obligations (extended to all types of personal data) and those regulating the management of the requests of data subjects concerning the exercise of their rights regarding personal data protection.

With regard to training, the online training module on GDPR, already prepared in 2018 for the start of GDPR application, was updated and its mandatory use was extended to all TIM Group employees; this form must also be used by newly recruited staff.

In addition, specific measures have been planned for certain company sectors. An ad hoc training course has been set up for TIM's customer care resources (consumer and business), as well as for outsourcer staff, who have a coordinating and supervisory role. The course focused on topics of interest such as:

- i) processing of customer/prospect requests concerning the exercise of privacy rights;
- ii) data breach and management. In all, 11 training sessions were held with the participation of about 400 people. An online training module on the above topics was prepared for Customer Care employees.

TIM's management staff tasked with managing relations with other electronic communication operators, as well as with the activation and technical assistance activities for equipment and connections, was the target of a training course on the topic of *data breaches*, which saw the participation of 37 TIM employees.

Finally, as part of training on *Big Data Transformation*, a module on the GDPR and Big Data, delivered in several editions and attended by 50 employees of the TIM departments involved, was organized.

[GRI 103-3: Management Approach] [GRI 418-1] The effective application of the internal policies is monitored through an extensive control system based on regular self-assessment procedures, sample checks carried out by the relevant central and regional departments, based on established procedures and methods, as well as for planned and identified second level controls, also due to the inherent risk level of processing.

In the light of these activities, the Personal Data Processing Activity Register was revised and updated, with the support of a special IT tool, both to further improve its compliance with GDPR provisions and with a view to its use as a corporate compliance catalogue, to address the compliance requirements of Information Technology systems, identify possible areas for improvement and manage the related action plans.

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<sup>1</sup> Data breach.

Finally, also during the course of 2019, TIM continued to take the steps required to ensure the implementation of provisions in its internal processes to deal with any violation of personal data security (so-called “data breaches”), as well as to respond to the numerous customer requests (for example, to know what personal data is being processed by TIM or exercise other rights) and the information requests submitted to TIM by the Italian Data Protection Authority.

The table below shows:

- (i) the information requests made to TIM, in Italy, by the Italian Data Protection Authority, including those made following reports/complaints by customers;
- (ii) the answers provided to requests for the exercise of privacy rights made by TIM customers to Customer Care or directly to the Data Protection Officer.

	2019	2018	2017
Requests received (number of cases/complaints reported)	116	71	124
Replies to requests for the exercise of customers' privacy rights addressed to TIM Customer Care	864,417	583,285	-
-of which answers to requests for the exercise of privacy rights made by customers directly to the Data Protection Officer	2,680	867*	-

\* Data referring to the period 05/25/18 (effective date of the GDPR) as of 12/31/18.

[GRI 103-1: Management Approach] [GRI 418] *In Brazil*, TIM Participações believes that the confidentiality of customer information is a primary commitment for telecommunications companies and monitors its systems uninterruptedly in order to prevent and detect any unauthorized access attempts.

[GRI 103-2: Management Approach] [GRI 418] As pursuant to article 5 of the Federal Constitution, and article 3 of the General Law on Telecommunications No. 9,472 of 1997, the right of customers to the confidentiality of their personal data is established (with the exception of cases provided for by the law). The *Personal Mobile Service* regulation, in articles 89, 90 and 91 of Resolution No. 477 of the national telecommunications agency (ANATEL), requires companies to take responsibility in this respect and establishes that any waiver of confidentiality must take place only if requested by the relevant authority in the cases provided for by law. The 2014 Federal Law (Marco Civil) No. 12,965 (*Brazilian Civil Rights Framework for the Internet*), under articles 10 and 11, ensures the privacy and protection of personal data for Internet users.

On August 14, 2018 the President of the Republic approved the General Data Protection Act No. 13,709/2018, which will come into force in August 2020. This law applies to any data processing by a legal person or entity under the control of public or private companies, regardless of the area and country in which the headquarters are located or in which the data is located, on condition that:

- the processing is carried out in the national territory;
- the purpose of data processing is the provision of goods or services or the processing of data of persons located in the national territory;
- the personal data subject to processing has been collected in the national territory.

To guarantee the confidentiality of the its customers' information, in accordance with national legislation (including Articles 10 and 11 of the “Marco Civil”), TIM Participações has issued relevant internal policies and procedures to ensure the confidentiality of information relating to its customers, based on the “need to know” principle (personal data processing is restricted to the minimum required to carry out the work) and the separation of duties. These policies and procedures set out the methods for the classification and management of information to guarantee suitable protection levels.

In 2019, TIM Participações updated its policy on the confidentiality of customer data to ensure that access to the recording and communication of customer data is only allowed to employees who use this information in their work. TIM carries out its activities in accordance with ISO 27001, the international standard that describes the best practice for information security management, although it has not yet obtained the relevant certification.

In the event that a customer submits a complaint for violation of privacy, Tim Participações assesses the situation and provides clarification to resolve any problems (even potential ones). Customers have access to privacy information when they sign TIM plans according to the terms and conditions of the contract (the update of which is currently in progress to comply with the General Regulation on Data Protection, which will take effect in August 2020).

TIM Participações continuously monitors its systems to prevent and detect any attempt at unauthorized access. Employees and service providers are aware of the need to adopt data security measures and all providers offering value added services (VAS) must sign a non-disclosure agreement with TIM Participações.

TIM has a number of specific technological resources to support management of this issue, such as data loss prevention (DLP), identity management, content filtering, the Cyber Security Operations Center (CSOC), etc.

The BSO/Cyber & ICT Security department is responsible for updating policies and procedures, ensuring compliance and governance of information security, through the involvement of all relevant departments, as well as disclosure and compliance with the guidelines within TIM Participações.

Moreover, the company is committed to complying with the Sarbanes-Oxley Act, in accordance with its guidelines, relating to internal controls for privacy, control and protection of personal data.

In addition, the company's anti-corruption program includes an organizational business model, available online on the Intranet, which guarantees personal data processing in compliance with the rights and dignity of the persons involved and within the limits of what is necessary for processing. The model is compliant with Italian Legislative Decree No. 231/01, Brazilian anti-corruption law No. 12,846/2013 and international standards, such as the US Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act.

In accordance with Organizational Design<sup>1</sup> no. 1347/18 - which comprises the appointment of the Data Protection Officer (Data Protection Officer), the action model for the application of the regulations, the adequacy of the activities and the assessment of the related impacts in accordance with Brazilian law no. 13,709/2018, concerning data protection (LGPD in Portuguese) - it is hereby stated that the Privacy Committee is coordinated by the Chief Executive Officer (CEO).

Within the Committee, the Compliance department continues to be tasked with carrying out the actions necessary to comply with the LGPD, in concertation with the departments involved in the issue.

The Committee breaks down as follows:

- Legal,
- Regulatory, Institutional and Press Relations,
- Business Support Officer,
- Chief Technology Information Officer,
- Chief Revenue Officer,
- Human Resources & Organization.

In 2019 - based on the Compliance Program drawn up to achieve compliance of TIM Participações with the Brazilian law on general data protection - the Company held seminars to spread the culture of privacy for the heads of all company departments.

Below follow the requests for information by the Authority pursuant to a suspension of the privacy law:

- wiretappings: 381,113 (the total number includes what has been done on its own system, which may also include possible duplications for different Authorities);
- recording data: 513.468\*;
- telephone or connection excerpts 595.728\*.

\* The number includes the requests that have been answered manually and the requests forwarded directly by the competent authorities through the web service provided for this purpose.

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<sup>1</sup> Organizational project.

[GRI 103-3: Management Approach] [GRI 418] [GRI 418-1] TIM Participações:

- at December 31, 2019 there were 892 pending complaints from customers, of which 801 were opened in 2019, 84 in 2018 and 7 in 2017;
- in 2019, 372 complaints were closed. The Judicial Authority decided in favor of TIM Participações in 112 cases, against the Company in 130 cases and the remaining 130 were closed through a settlement between the parties.  
In 2019, complaints on this issue increased significantly for all telecommunications companies, not only for TIM Participações.

Anatel has not yet released any analysis on complaints received about customer privacy violations.

It should be noted that the difference between the legislation of Italy and Brazil does not allow for any comparisons to be drawn between homogeneous data.

#### [GRI 103-2: Management Approach] [GRI 418] **Research and innovation in e-security**

TIM is involved both in research and in innovation regarding cyber security and more generally the security of information and networks. Activities carried out in 2019 included the following:

- the development and application of machine learning<sup>1</sup> algorithms and artificial intelligence for the evaluation and prediction of the risk level of potentially dangerous e-mail messages and the automatic classification of malware samples;
- implementation of the responsible disclosure program<sup>2</sup> to collect and manage vulnerability reports on TIM services, products or equipment spontaneously provided by customers, researchers or security experts. The persons filing reports are confident that the vulnerabilities are managed within a guaranteed timeframe and undertake to keep what they discover confidential until the countermeasures can be applied;
- the creation of a forensic analysis laboratory to support the investigation and analysis activities carried out in case of hacking;
- ongoing work on the development of a proprietary threat intelligence platform<sup>3</sup> to support the collection, analysis and consumption of intelligence on new security threats; The relevant issues addressed during the year included: the development of criteria for estimating the level of confidence, reliability and relevance of the information acquired, the upgrading of breach indicators, and the integration of multiple sources;
- participation in the work of the four-year project CONCORDIA<sup>4</sup> (Cyber security cOMpeteNce fOR Research and INNOvAtion<sup>5</sup>), as part of the European research programme Horizon 2020, and in particular the initiative "Establishing and operating a pilot for a Cybersecurity Competence Network to develop and implement a common Cybersecurity Research & Innovation Roadmap<sup>6</sup>" with a focus on Intelligence platforms, tools and processes;
- overseeing and steering the activities of the <sup>7</sup>GSMA (GSM Association) Fraud and Security Group, as Deputy Chair;
- the collaboration, within the scope and 3GPP<sup>8</sup> SA<sup>9</sup> SECAM<sup>10</sup>, for the definition of the security requirements and test methods on devices for 3GPP standard (SECAM) networks and those for the security of 5G infrastructure;

<sup>1</sup> Machine learning programs.

<sup>2</sup> Procedure to report the vulnerabilities of IT systems, leaving the recipient the necessary time to identify and apply the appropriate countermeasures, before disclosing them publicly.

<sup>3</sup> Threat intelligence platform.

<sup>4</sup> <https://www.concordia-h2020.eu/>

<sup>5</sup> Expertise in cyber security for research and innovation.

<sup>6</sup> Establishing and managing a pilot project for a cyber security skills network in order to develop and implement a common roadmap for research and innovation in cyber security.

<sup>7</sup> Fraud and security.

<sup>8</sup> The 3rd Generation Partnership Project.

<sup>9</sup> Security Assurance.

<sup>10</sup> SECurity Assurance Methodology.

- participation, within the ETSI<sup>1</sup>, in the work of TC CYBER focused on cyber security and the ETNO<sup>2</sup> field, NSecFC WG (Network and Services Security, Fraud and Cybercrime<sup>3</sup>), and more specifically the CERT TF (Computer Emergency Response Team Task Force<sup>4</sup>);
- the implementation of various scouting activities to identify and assess emerging and/or innovative security solutions including cyber range technologies (environments/platforms for training and education of personnel on cyber security issues and challenges) and cyber deception technologies (technology that tries to deceive hackers by realistically replicating the characteristics and components of company networks and making them believe that they are hacking the company perimeter and have come into possession of sensitive data relating to devices/systems present in the network);
- the implementation of multiple security campaigns testing<sup>5</sup> to assess the level and adequacy of new equipment, instruments, and devices in terms of security.

## Smart Services

[GRI 203-1] [GRI 203-2] In the context of public sector services and businesses, in accordance with the Italian Digital Agenda (ADI) and European Directives, in 2019 TIM consolidated and streamlined its Smart Services offer (security, energy efficiency, environmental and digital services in urban areas, analytics to support sustainable choices from the point of view of local and central government) with the aim of promoting the Smart City model to improve the quality of life through the development of innovative digital services that move municipalities to a Smart Community model (as indicated by the Digital Agenda), to enable new forms of collaboration between citizens, businesses and public administrators.

<b>SMART LIGHTING / SMART PARKING</b>	<p>Integrated management of the local infrastructural networks and construction of the Smart City environments.</p> <p>Revenues: over 100,000 euro.</p> <p>Enabled services:</p> <ul style="list-style-type: none"> <li>• planning of electricity consumption and maintenance. Energy saving is estimated within a range between 15% (light produced by high-efficiency lamps, e.g. LEDs) and over 30% in the case of light produced by old style lamps (e.g. sodium vapor or incandescence). Added to these values is the option of varying lighting by switching on and/or reducing the intensity of individual lamp posts;</li> <li>• Smart sensor-based parking spaces to optimize the distribution of parking spaces in the local area.</li> </ul>
<b>TIM FLEET TRACKING E TIM YOUR WAY</b>	<p>Location and fleet management combined with vehicle telemetry identification and detection systems.</p> <p>Revenues: 5,800,000 euros.</p> <p>Enabled services:</p> <ul style="list-style-type: none"> <li>• planning of services and routes;</li> <li>• reduction of pollutant emissions;</li> <li>• driver identification solutions, telemetry control;</li> <li>• solutions for the transport of materials and goods at controlled temperature;</li> <li>• driver and vehicle safety services.</li> </ul>
<b>TIM ENERGREEN AND SMART BUILDING</b>	<p>Remote management of energy consumption, implemented on TIM assets and services, for the purpose of saving energy.</p> <p>Revenues: 1,552 K euros.</p> <p>Enabled services:</p> <ul style="list-style-type: none"> <li>• on-site energy audit: on-site analysis for energy efficiency;</li> <li>• Metering &amp; Reporting;</li> </ul>

<sup>1</sup> European Telecommunications Standards Institute.

<sup>2</sup> European Telecommunications Network Operators' Association.

<sup>3</sup> Network and services security, fraud and cybercrime.

<sup>4</sup> Computer Emergency Response Team Task Force.

<sup>5</sup> Safety tests

<sup>6</sup> The revenues from this are not high as it is offered together with other products.

	<ul style="list-style-type: none"> <li>• <i>Efficiency strategy</i> (advanced reporting and <i>Energy Management</i> consulting services);</li> <li>• <i>Energy Cost Management Services</i>;</li> <li>• <i>Special Project</i>: <i>ad hoc</i> efficiency improvement work.</li> </ul>
<b>TIM WASTE MANAGEMENT</b>	<p>Management of environmental services and waste delivered for collection by road or door-to-door. Revenues: 270,000 euros</p> <p>Enabled services:</p> <ul style="list-style-type: none"> <li>• management and control of the means of collection;</li> <li>• automatic recording of the collections using bag reading tags and mechanical bin pick-up by the vehicle;</li> <li>• service certification report;</li> </ul> <p>service planning by defining collection routes and managing the areas concerned</p>
<b>TIM CITY FORECAST</b>	<p>Statistical data to help local authorities to monitor the number of people present in the area, their social and demographic characteristics and movements over time, to optimize the services offered to citizens and enhance the area. The service is based on advanced TIM mobile network data processing in full respect of privacy.</p> <p>Revenues: 326 thousand euro contracted in 2019.</p> <p>TIM City Forecast allows in particular to:</p> <ul style="list-style-type: none"> <li>• quantitatively assess public mobility patterns continuously and reliably;</li> <li>• evaluate the vehicular flow of a city or area for planning the vehicular traffic patterns;</li> <li>• understand the characteristics of tourist flows to optimize and monitor the development of the tourist and cultural offer over time;</li> <li>• know in near real-time the density of the areas in question;</li> </ul>
<b>TIM WATCH OVER AND OTHER VIDEO SERVICES</b>	<p>Software application designed for the management of video surveillance systems in public areas, indoor and outdoor. It allows you to monitor the area in terms of security and prevention. The images are also securely stored in the TIM cloud and made available for possible checks by law enforcement agencies. Video surveillance revenue: 280 K euros.</p> <p>Enabled services:</p> <ul style="list-style-type: none"> <li>• customization of the areas to be monitored;</li> <li>• sending event alarms;</li> <li>• integrating existing IP cameras, safeguarding investments already made.</li> </ul>
<b>DIGITAL SCHOOL KIT</b>	<p>Integrated digital management of teaching and school administration<sup>1</sup>. The offer can be configured according to the requirements (by order and degree) of the different schools and includes a range of integrated modular services with assisted and integrated management.</p> <p>Enabled services:</p> <ul style="list-style-type: none"> <li>• enabling infrastructure (fixed internet, Wi-Fi &amp; security connectivity);</li> <li>• digital teaching services (teaching platform, application integrated with school e-book stores, with which schools can organize activities, training courses, and individual and collaborative study);</li> <li>• catalogue of turnkey products and services (creation and/or expansion of relationships, MDM<sup>2</sup>, high definition monitors, furnishings, accessories and much more).</li> </ul>

<sup>1</sup> TIM acts as a representative of technology to support schools on the path of digital renewal, making available its expertise in the field of IT and data networks.

<sup>2</sup> *Mobile Device Management*, the definition of *best practice* guidelines and those for providers of solutions for centralized management and security of smartphones and mobile devices.

In the three years 2020-2022, the smart city and digital territory segment will be one of the reference verticals. They will strongly contribute to the development of revenues in the IoT (Internet of Things) segment, whose growth is estimated with a 2X factor in the period 2019-2022.

The Olivetti *Smart Lighting*<sup>1</sup> system combines the replacement of traditional lighting with low energy consumption LED lights with the optimization of lighting system management through wireless technology remote control, allowing for savings of up to 65%. Assuming an average consumption per capita for public lighting in Italy of about 99.8 kWh<sup>2</sup> and considering a 50% consumption reduction for a municipality of 100,000 inhabitants using this lighting system, it would be possible to achieve overall annual energy savings of 4,990,000 kWh, equal to a 1,926t reduction of CO<sub>2</sub> emissions (Scope 2)<sup>3</sup>.

TIM's Waste Management service is the offer for managing ecological and waste services provided for door-to-door collection or stored in street collection containers. Through more integrated solutions of collection vehicles and hands-free operators, it is possible to fully manage the waste collection cycle and ecological services in general such as, for example, rubbish and decoration of urban areas.

TIM's Fleet Tracking service and the other TIM Your Way solutions services address the management and monitoring of the car park and commercial vehicles. Integrated solutions ranging from integrated platform services to devices permanently installed in vehicles, help us to control and reduce fuel consumption, substantially cut the emission of pollutants, ensure the safety of staff who drive vehicles and implement a car-sharing system for the use of vehicles in shared mode.

<sup>1</sup> Olivetti.com/it/iot-big-data/soluzioni-iot/smart-lighting .

<sup>2</sup> Calculation based on data from Terna (the Italian electricity transmission system operator) and ISTAT (the Italian National Institute of Statistics), relating to December 2017.

<sup>3</sup> Using the same emission factor used by TIM in this Report for Scope 2 emissions reporting, i.e. 0.386 kg CO<sub>2</sub>/kWh.



## Results and Objectives

### 2018 and 2019 Results

[GRI 103-3: Management Approach] [GRI 102-43] [GRI 102-44] The results achieved are shown below, compared to the objectives published in the previous Sustainability Report for the year 2019 and in relation to only stakeholder Customers for the year 2018<sup>(1)</sup>.

TIM S.p.A. – Customers<sup>(2)</sup>

Area of reference	Indicator (1)	Unit of measurement	Target 2018	Final figures 2018	Target status 2018*	Target 2019
CUSTOMERS – MOBILE	Activation time for voice service (pre-paid service) – Percentage of valid orders completed within the maximum period laid down by contract.	%	97	100	●	97
CUSTOMERS – MOBILE	Activation time for voice service (post-paid service) – Percentage of valid orders completed within the maximum period laid down in the contract	%	97	100	●	97
CUSTOMERS – MOBILE	Disputed charges – Ratio between the number of disputed charges in invoices received within the survey period and the number of invoices issued in the same period (post-paid service)	%	1.2	0.68	●	1.2
CUSTOMERS – MOBILE	Disputed charges – Ratio between the number of disputed charges on pre-paid cards within the survey period and the average number of active SIM/USIM in the same period (pre-paid service)	%	1.2	0.48	●	1.2
CUSTOMERS – INTERNET	Activation time for broadband Internet access services – Percentage of valid orders completed within the date agreed with the customer (active telephone lines)	%	95	98.5	●	95
CUSTOMERS – INTERNET	Activation time for broadband internet access services – Average time of supply (active telephone lines)	Days	9	4	●	9
CUSTOMERS – INTERNET	Activation time for broadband Internet access services – Percentage of valid orders completed within the date agreed with the customer (new active telephone lines and transferred telephone lines)	%	95	99.2	●	95
CUSTOMERS – INTERNET	Activation time for broadband internet access services – Average time of supply (new active telephone lines and transferred telephone lines)	Days	15	9	●	15
CUSTOMERS – INTERNET	Broadband Internet access service faults – Ratio between the effective number of malfunction reports and the average number of broadband access lines	%	12	7.1	●	12
CUSTOMERS – INTERNET	Broadband Internet access service faults – Average repair time	Hours	26	20	●	26
CUSTOMERS – INTERNET	Broadband Internet access service faults – Percentage of fault repairs completed within the maximum time contractually established	%	92	95	●	92

CUSTOMERS – INTERNET	FIXED	Disputed charges - Ratio between the number of disputed charges in bills regarding all internet access services (received during the survey period) and the total number of bills issued in the same period (broadband access services)	%	1.4	0.4	●	1.4
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(\*) Target Status:

- reached;
- not reached.

The actual figures of the above mentioned objectives for 2019 will be available in July 2020 on the [www.tim.it](http://www.tim.it) and [www.timbusiness.it](http://www.timbusiness.it) websites.  
(2) The full list of quality indicators, and the respective objectives for them, is available on the [www.tim.it](http://www.tim.it) and [www.timbusiness.it](http://www.timbusiness.it) websites. The above objectives are established by AGCom, with resolution no. 154/12/CONS for “mobile” services and resolutions No. 131/06/CSP, 244/08/CSP, 400/10/CONS and 151/12/CONS for fixed internet access services.

## 2020 and multi-annual targets

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] The objectives for 2020 are shown below.

### TIM S.p.A. – Customers<sup>(1)</sup>

Area of reference	Indicator	Unit of measurement	Target 2020
Customers - Mobile	Activation time for voice service (pre-paid service) – Percentage of valid orders completed within the maximum period laid down in the contract	%	97
Customers - Mobile	Activation time for voice service (post-paid service) – Percentage of valid orders completed within the maximum period laid down in the contract	%	97
Customers - Mobile	Disputed charges – Ratio between the number of disputed charges in invoices received within the survey period and the number of invoices issued in the same period (post-paid service)	%	1.2
Customers - mobile	Disputed charges – Ratio between the number of disputed charges on pre-paid cards within the survey period and the average number of active SIM/USIM in the same period (pre-paid service)	%	1.2
Customers - Fixed internet	Activation time for broadband Internet access services – Percentage of valid orders completed within the date agreed with the customer (active telephone lines)	%	95
Customers - Fixed internet	Activation time for broadband internet access services – Average time of supply (active telephone lines)	Days	9
Customers - Fixed internet	Activation time for broadband Internet access services – Percentage of valid orders completed within the date agreed with the customer (new active telephone lines and transferred telephone lines)	%	95
Customers - Fixed internet	Activation time for broadband internet access services – Average time of supply (new active telephone lines and transferred telephone lines)	Days	15
Customers - Fixed internet	Broadband Internet access service faults – Ratio between the effective number of malfunction reports and the average number of broadband access lines	%	12
Customers - Fixed internet	Broadband Internet access service faults – Average repair time	Hours	26
Customers - Fixed internet	Broadband Internet access service faults - Percentage of fault repairs completed within the maximum time established in the contract	%	92
Customers - Fixed internet	Disputed charges - Ratio between the number of disputed charges in bills regarding all internet access services (received during the survey period) and the total number of bills issued in the same period (broadband access services)	%	1.4

(1) The full list of quality indicators, and their respective objectives for 2020, is available on the [www.tim.it](http://www.tim.it) and [www.timbusiness.it](http://www.timbusiness.it) websites. The above objectives are established by AGCom, with resolution no. 154/12/CONS for “mobile” services and resolutions No. 131/06/CSP, 244/08/CSP, 400/10/CONS and 151/12/CONS for fixed internet access services.

[GRI 103-3: Management Approach] [GRI 102-43] [GRI 102-44]

### Domestic BU - Multi-year objectives -Digital Inclusion

Indicator	Units of measure	Target 2019	Actual figure 2019	Target 2020	Target 2021
LTE Coverage <sup>(*)</sup>	%			>99	
Next Generation Plan coverage (fixed telephony) FTTX <sup>(**)</sup>	%			~95	

(\*) The percentage refers to the residential population. Coverage values are subject to change based on ISTAT and urbanization updates.

(\*\*) The percentage is determined by the ratio between the number of properties connected with “cabinets” reached by access optical fibers (or which can be served directly from an exchange if within acceptable distances) and the total number of properties that have or have had active telephone lines in the past.

## The supply chain

[GRI 103-1: Management Approach] [GRI 308] [GRI 414] The 2019 materiality analysis confirmed the evaluation and consolidation of social and environmental aspects of the supply chain as a material topic for the Group.

Digital represents the new collective progress factor which, in different ways, offers new opportunities that greatly impact the economy and society.

Suppliers have a direct influence on the communities and areas within which they carry out their activities, to which must be added the involvement of organizations that oversee the environmental and social aspects related to these activities.

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] The procurement process adopted by the TIM Group is based on the competitive comparison of the technical and economic characteristics of the offers presented by the selected suppliers, based on corporate procedures that comply with business ethics.

Products and services are acquired at the best market conditions and must meet particular requirements of functionality, quality, safety and respect for the environment, in complete compliance with current laws and legislation.

[GRI 102-9] The purchasing departments focus on specific sectors, so as to provide accurate responses to the requirements of internal customers and stakeholders.

TIM's purchases mainly take place in the two geographical areas where the Group's major activities take place, Italy and Brazil, and are mainly aimed at the following categories of products and services:

- telecommunications networks,
- telecommunications products,
- information technology,
- technical and professional services,
- power systems.
- other.

[GRI 102-9] In total, 4,530 suppliers received purchase orders from the Group in 2019 (-5% compared with 2018 and -11% compared with 2017), of which 3,682 for the Domestic BU1 (-2% compared with 2018 and -7% compared with the 2017 total), 871 for Brazil (-12% compared with 2018 and -21% compared with 2017)<sup>2</sup>.

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] The selection of the TIM Group's suppliers involves a pre-contractual qualification stage, in which the economic/financial and technical/organizational characteristics are assessed. If the result of this assessment -which also includes consideration of the business ethics and respect for Human Rights, workers' rights and the environment -is positive, the suppliers are registered on the Group Supplier Database.

[GRI 412-3] In all the contracts signed, there is a specific clause which makes it mandatory for the supplier to accept the principles expressed in the Group's Code of Ethics and Conduct<sup>3</sup>.

[GRI 412-3] As regards the domestic operations, the Italian suppliers on the database with considerable value (the threshold is 3,000 euros cumulative per year) receive<sup>4</sup> initial screening in relation to respect for the principles of the Code of Ethics and Conduct and are subject to regular assessment. The actions taken by TIM to check suppliers varies

<sup>1</sup> The perimeter of the Domestic BU's suppliers also includes those of the companies Olivetti and Persidera.

<sup>2</sup> The sum of the two addenda differs from the total because some suppliers received purchase orders both from the Domestic BU and the Brazil BU.

<sup>3</sup> The Group Code of Ethics and Conduct (CE) reads: "Compliance with the Code must also be guaranteed by external collaborators and, where envisaged in the company procedural system, by third parties that do business with the Group". In particular, the internal procedures require suppliers to accept the principles laid down by the CE, and contracts for temporary consortia or corporate investments to contain clauses for safeguarding the Organizational Model 231 (which is based on the CE). The UN Global Compact is, on the matter of Human Rights, the point of reference of the Group's CE, which reads: "TIM has signed up to the United Nations' Global Compact on Human Rights, work standards, environmental protection and the fight against corruption, and ensures that this institutional commitment is fully implemented by undertaking regular initiatives on environmental and social issues". The CE also contains specific clauses on the prohibition of discrimination, intimidation, corruption and the protection of health and safety. Moreover, the Group policy on respect for Human Rights specifies that "Fundamental Human Rights (e.g. working hours, fair remuneration, minimum age for starting work, workplace conditions, accessibility to the disabled, protection of maternity, prohibition of harassment, prohibition of forced/compulsory/restricted labour)" and "rights regarding health and safety (we consider the high standards of health and safety as a milestone of our success and our aim is to minimize injuries and occupational illnesses)" must be guaranteed for both the people of the Group and the human resources of suppliers.

<sup>4</sup> Excluding government agencies.

depending on the riskiness of the supplier and the value of the purchase: ranging from simple to complex questionnaires and document checks to specific audits on sustainability matters.

[GRI 414-1] Specifically, in 2019, 100% of new suppliers enrolled in the Register signed a specific questionnaire in which they commit themselves and any authorized sub-contractors, collaborators and employees to observe the principles of behavior contained in the Group's Code of Ethics and Conduct.<sup>1</sup>

While the supply is taking place, registered companies which have received purchase orders in markets that are strategic for the Group normally undergo incoming quality control checks (a requirement for the acceptance and use of the purchased goods) and monitoring of the vendor rating. Environmental and social audits are also carried out on some of these.<sup>2</sup>

For some sectors, the Group also measures and monitors subcontracting suppliers, in particular, for network jobs; there were 850 subcontracting businesses (-4% compared with 2018 and -9% compared with 2017). In this sector, therefore, the estimated total number of suppliers involved in the supply chain was 870<sup>3</sup>.

In the last three years, no significant changes have occurred in the structure of the Group's supply chain.

In the BU Brazil, the products come, as far as possible, from local suppliers. TIM Participações checks that its suppliers comply with labour laws also by scrutiny of a particular list (that includes suppliers non-compliant with the laws in question), available on the website managed by the "Business Pact for Integrity and Against Corruption and the Brazilian National Pact to Eradicate Slave Labor"<sup>4</sup>. A potential supplier included in the abovementioned list - for violating laws regarding child, forced or other labor - cannot sell services and products to the Company. In 2019, no supplier who had responded to the TIM Participações' social and environmental questionnaire identified risks concerning child and forced labor.

## Sustainability initiatives

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] In 2019, the process that defines activities aimed at improving the sustainability of the supply chain continued to be applied. These activities involve the qualification, incoming quality and vendor rating stages.

In particular, the suppliers were classified according to the potential risks associated with their sustainability performance, carried out using a specific method that considers the social-environmental and business continuity aspects associated with the procurement markets in which they operate. For this reason, the procurement markets (i.e. procurement categories homogeneous among themselves) have been classified in accordance with parameters such as:

- the geographical areas of reference and the risks connected with them,
- the potential impact on the environment and on the society of the suppliers' activities and of the products and services supplied throughout their entire life cycle, including risks relating to violations of Human Rights, employment and environmental,
- the impact on the reputation of TIM as a customer.

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] A matrix has been created which, by relating the spending associated with the specific purchase market to the risk index calculated on the basis of the parameters listed, has allowed purchase markets to be divided into four classes, identifying those that are critical from the point of view of sustainability and economic impact. Suppliers belonging to the classes at greatest risk are the subject of sustainability audits carried out by third party companies specializing in the sector. These audits are repeated periodically to monitor the implementation of any corrective actions and, if the results are positive, to verify that the standard of performance found is being maintained over time. The tools developed and used for the Domestic BU have been explained and transferred to the Brazil BU.

<sup>1</sup> In Brazil the percentage was 96%.

<sup>2</sup> [GRI 103-2: Management Approach] [GRI 308] [GRI 414] In particular, checks are envisaged on health and safety and the environment, the result of which goes towards forming the supplier rating, to which the system of penalties/incentives is connected. Checks are also envisaged in relation to respect for employment legislation.

<sup>3</sup> In the Brazilian BU, at present there is no systematic monitoring of level two suppliers.

<sup>4</sup> Companies Integrity Pact, against corruption, and the Brazilian National Pact for the Elimination of Forced Labor.

[GRI 308-1] [GRI 407-1<sup>1</sup>] [GRI 408-1] [GRI 409-1] [GRI 414-2] All suppliers of the Domestic BU have been assessed to consider the social/environmental risk; in 2019, there were 42 at higher risk (no change from 2018 and down 18% from 2017). 17 purchase and suppliers<sup>2</sup> operating in the following geographical areas are considered to be at greatest social risk: Asia, Central and South America, North Africa and Eastern Europe.

[GRI 410-1] For the employees of organizations which supply security guard services in Italy, the Consolidated Law on Public Security must be complied with, in particular Art. 138, subsection 2, which specifies the professional and training requirements of sworn guards. In **Brazil**, law 7102/83 establishes the rules relating to private security. Among other things, it ensures that all those intending to be hired as security guards for a security business must have attended a training course, delivered by schools accredited by the Federal Police. After hiring, once every two years the guards must take an update course.

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] Since 2014, all suppliers interested in a qualification process (new, extension, renewal), relating to areas of procurement that present the greatest risk in terms of sustainability answer a specific self-assessment questionnaire to determine the socio-environmental sustainability risk. Periodically updated based on the results and evolution of the qualification process, the questionnaire was developed according to the main requirements of the relevant responsible corporate management standards relating to respect for ethical values and to safeguarding the environment (including SA 8000, UN Global Compact and ISO 14001) and to the best industry practices. [GRI 308-1] [GRI 414-1] The self-assessment sustainability questionnaire is integrated into the application that handles the supplier qualification process, which automatically extended it to all new suppliers operating in markets where sustainability is considered to be at risk. Refresher campaigns were mounted for suppliers previously qualified in TIM's Register of suppliers. The results of the questionnaire will make it possible to refine the risk matrix described above.

[GRI 308-1] The application of the green procurement policy, which contains guidelines for establishing the environmental requirements of products/services purchased, continues to be an integral part of the procurement process. The policy covers all stages of the product life: design, production, use and end of life. Published on the "vendors hub" supplier portal of TIM and in the sustainability section of the [telecomitalia.com](http://telecomitalia.com) website, the document helps to orient purchasing policies towards low environmental impact products and services.

[GRI 414-1] [GRI 414-2] In 2019 in **Brazil** a self-assessment questionnaire on sustainability issues was sent to suppliers whose orders exceeded one million reais, equal to 71% of the total number of suppliers. All 831 suppliers involved responded by the end of 2019. The results are used as an indication for future selection processes.

## Sustainability checks

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] Activities intended to verify the sustainability performance level of common suppliers and sub-suppliers continued in 2019 in the framework of the Joint Audit Cooperation<sup>3</sup> (JAC) initiative, in accordance with the memorandum of understanding signed at the end of 2009 by TIM, Orange and Deutsche Telekom. Proximus, KPN, Swisscom, Vodafone Group subsequently joined the initiative in 2011; Telenor and Telia Company in 2012; Verizon in 2013; AT&T, Telefónica and Rogers in 2016; MTS, Telstra and Veon in 2018 and Elisa OYJ in 2019.

The purposes of the Joint Audit Cooperation are:

<sup>1</sup> [GRI 103-2: Management Approach] [GRI 407] The Group policy aimed at preventing the risk of violation of trade union rights is that relating to "Relations with Suppliers in the TIM procurement process", which reads: "...the Group demands of its suppliers and promotes, through them, and including with regards to sub-suppliers, respect for the following principles and provisions of law in force in the countries where these stakeholders operate... all employees have the legal right to constitute and/or belong to trade union organizations aimed at safeguarding the individual and collective interest. The role of the workers' trade union representatives must be acknowledged, and they must not be subject to any form of discrimination; in order to go about their union activities, they must be guaranteed remunerated permits and the means necessary to communicate with the workers on the workplace". The same concepts are also stressed in the Group's policy on respect for Human Rights.

<sup>2</sup> NGAN (Next Generation Access Network, i.e. the next generation network), antennae, cables, data - GBE (Gigabit Ethernet, i.e. the evolution to 1,000 Mbit/s of the Fast Ethernet -IEEE 802.3u standard -protocol operating at 100 Mbit/s), DWDM (Dense Wavelength Division Multiplexing, i.e. the technology used to increase the amount of bandwidth available on a fibre optic channel) equipment, 3G access, LTE mobile access (Long Term Evolution), assurance, creation; delivery, civil works, industrial works, industrial maintenance, call center, telesales, access gateway, and handset.

<sup>3</sup> Further information is available on the [jac-initiative.com](http://jac-initiative.com) website.



- to verify the sustainability of the most important suppliers/sub-suppliers that are common to the members of the JAC, with production plants located in geographical areas with a significant degree of socio-environmental risk. The checks are made through audits carried out by Third parties using a specific method developed by the JAC members themselves, who share the results of the verifications;
- to contribute to the increased sustainability of suppliers/sub-suppliers involved by devising and implementing corrective actions and ongoing improvement programs, establishing long-lasting and mutually beneficial cooperation with them in terms of efficiency, productivity and risk reduction in the supply chain;
- to perform *capacity building* activities (capacity development), through specific supplier training programs, particularly in order to disseminate a culture of sustainability throughout the supply chain (sub-suppliers and sub-sub-suppliers);
- share tools to address common and relevant international issues, such as climate change or circular economy.

[GRI 308-2] [GRI 407-1] [GRI 408-1] [GRI 409-1] [GRI 414-2] Between 2010 and -2019, thanks to the gradual increase in the number of members of JAC, 639 audits<sup>1</sup> were carried out – 124 in 2019 alone – in the production plants (suppliers and sub-suppliers) located in Asia, Central and South America, North Africa and Europe. The checks were carried out through international specialized companies selected by competitive tender and related to a total of more than 1,326,000 workers. The suppliers included in the audit campaigns belonged to the user devices and appliances, network appliances and IT equipment production sectors.

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] The table below shows the non-conformities recorded during audits on Group suppliers, including those relating to Human Rights.

	2019	2018	2017
Environment	49 (19)	30 (22)	38 (32)
Discriminations	7 (2)	2 (2)	11 (10)
Business ethics <sup>2</sup>	27 (4)	28 (24)	53 (48)
Forced labour	8 (0)	3 (2)	7 (3)
Child labour	7 (1)	3 (3)	4 (4)
Freedom of association	5 (1)	2 (2)	3 (2)
Working hours	46 (18)	38 (27)	60 (46)
Salaries	16 (3)	7 (6)	21 (22)
Disciplinary proceedings	0 (1)	1 (0)	3 (1)
Health and safety	103 (51)	105 (77)	182 (142)

(Data relating to suppliers also operating for the Brazil BU is given in brackets)

[GRI 308-2] [GRI 414-2] For all the non-conformities encountered, specific corrective action plans were drawn up that established resolution procedures and timetables amongst others. The implementation of these plans is monitored on a constant basis by the JAC members<sup>3</sup>.

Moreover, in the 2017-2019 three-year period, 82% of the non-compliances detected were remedied within one year from the start of the corrective action plan, for a total of over 600 actions.

<sup>1</sup> 348 of whom were TIM suppliers (40 in 2019 alone). The total number of audits may be affected by the presence of some audits conducted over two years.

<sup>2</sup> This item includes, inter alia, *conflict minerals*, ISO 27000 standards, privacy, responsible advertising, anti-competitive practices, intellectual property, corrupt practices.

<sup>3</sup> [GRI 103-2: Management Approach] [GRI 308] [GRI 414] As the aim of the initiative is to help suppliers in the countries which are at greater risk – in terms of the application and respect for sustainability principles – improve their performance, non-conformities always result in corrective actions and not in the termination of the purchase contract.

The first three areas affected by these actions were health and safety, environment and working hours.

On 16 and January 17, 2019, the eighth annual suppliers Forum in the JAC programme was held in Shenzhen (China) on the theme of: "*Circular economy and responsible use of resources.*" The event was attended by more than 260 sustainability and procurement professionals from leading telecommunications operators, Information and Communication Technology (ICT) providers, Corporate Social Responsibility (CSR), Non Governmental Organizations (NGOs) and researchers.

During the forum, awards were given to suppliers who have adopted best practices in health and safety and who have distinguished themselves for the spirit of collaboration shown during the CSR audit campaign.

## Supplier involvement initiatives

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] Use of the suppliers' portal (*vendors hub*), launched at the end of 2011 to improve communication and optimize operational processes by applying *social networking* systems to the business context, is now well established; the Portal has around 4,149 *vendors* enabled to use the application platform. The portal allows suppliers to access a private area to view important data and events connected to their relationship with TIM and manage all their own details, thus acquiring significant advantages in smooth operation and transparency. The *vendors hub* also includes a public area containing information for potential suppliers.

Documentation is exchanged electronically (e.g. offers, purchase orders, contracts, qualification documentation, surveys), therefore reducing the environmental impact resulting from the use of paper, transporting and storing documents.

## Supply chain commitments

[GRI 103-2: Management Approach] [GRI 103-3: Management Approach] [GRI 308] [GRI 414]

2019 results and 2020 objectives: Italy

INDICATORS	DETAILS	2019 OBJECTIVES	FINAL FIGURES 2019	2020 OBJECTIVES
% suppliers audited	Total amount of high risk suppliers who have undergone an in-depth sustainability audit since 2010 <sup>1</sup>	85% of high risk suppliers	86%	85%
% of suppliers assessed	Suppliers assessed with a basic ethics questionnaire. Moreover, suppliers belonging to risk sectors are assessed with a more complex questionnaire <sup>2</sup>	100% of qualified suppliers, as defined in the introduction to the section	100%	100%
% procurement staff who received training on environmental, social and governance (ESG) risks relating to purchasing decisions	% staff directly involved in procurement, who participated in at least one training session on ESG matters	90%	93%	90%
% contracts containing clauses connected with ESG risks		100%	100%	100%
% suppliers with ISO 14001 certificates or equivalent		90% of network businesses	90%	90%
Integration of the ESG risk profile in the general supplier risk profile	All the suppliers qualified and registered in the register of suppliers are assessed based on an overall "Key Risk Indicator" (KRI) which also includes sustainability indicators	100% of qualified suppliers, as defined in the introduction to the section	100%	100%

2019 results and 2020 objectives: Brazil

INDICATOR	DETAILS	2019 TARGET	FINAL FIGURE 2019	2020 OBJECTIVE
Suppliers management	Percentage of suppliers evaluated according to sustainability criteria, based on ethics and conflicts of interest <sup>3</sup> .	85%	93%	85%

<sup>1</sup> The number of high risk suppliers varies year on year, as it depends on the orders made every year and the procurement market in which the suppliers operate. The same applies in general to the total number of suppliers belonging to the various procurement markets.

<sup>2</sup> The KPI refers to new suppliers and existing suppliers in case of renewal or extension of their qualification.

<sup>3</sup> Since the beginning of 2019, supplier assessments based on a questionnaire with social and environmental principles have been replaced by a due diligence questionnaire that includes elements of ethics and conflict of interest. The previous socio-environmental survey was nonetheless applied to all suppliers of goods and services (not just to those of an amount higher than a million reais). In 2019 87% of suppliers completed the socio-environmental survey.

**Human rights**

[GRI 103-1: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] The materiality analysis, conducted by TIM in 2019, confirmed the promotion and protection of Human Rights as a material topic for stakeholders and for the Group, along the entire “value chain”. This result, which may seem surprising for a telecommunications operator that works in countries considered to be at low/medium risk of Human Rights violations, is based on two sets of reasons:

- the broad meaning TIM assigns to the concept of “Human Right”. This sphere includes not only basic Human Rights common to all economic sectors, such as the right to fair remuneration, non-discrimination, the right to not resort to forced/compulsory/bonded work, etc., but also Human Rights specific to a telecommunications company, such as the right to access information, freedom of expression (in particular online), protection of privacy and safety online, and protection of children (from cyberbullying, for example);
- the public outcry caused by Human Rights violation incidents, which can seriously affect business reputation.

## TIM's Commitments

[GRI 103-2: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] TIM signed up to the Global Compact in 2002; between 2008 and 2011, TIM was a member of the UN Global Compact Human Rights Working Group set up by the Global Compact Board in 2006 with the aim of providing Global Compact with a strategic Human Rights input.

From 2012 to 2019, TIM has been one of the members of “The Human Rights Peer Learning Group” (PLG), established in the context of the Global Compact Network Germany with the “technical” support of Twentyfifty Ltd.<sup>1</sup> In recent years, in order to strengthen its commitment to the protection of Human Rights, TIM has implemented, inter alia:

- Human Rights due diligence;
- the “Respecting Human Rights in the TIM Group” policy;
- information and training on Human Rights.

[GRI 103-3: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] TIM monitors and analyses reports of possible breaches of Human Rights received through the *whistleblowing*<sup>2</sup> portal made available to all stakeholders.

### Complaints received and handled regarding Human Rights

	2019	of which substantiated	2018	of which substantiated	2017	of which substantiated
Italy	2	0	2	0	10	2
Brazil	49	15	52	15	31	10

## Due Diligence

[GRI 103-2: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] Among the objectives of due diligence are:

- the identification and mapping of Human Rights risks resulting from the company's operations;
- confirmation that each topic is assigned to a responsible body (governance), is governed by a specific internal regulatory framework (e.g. policy, procedure), has a management system that regularly monitors and traces the performances (if possible through appropriate indicators, such as those concerning health and safety);

<sup>1</sup> PLG is a learning platform and active leadership for European companies, where the meetings take place in respect of the *Chatham House Rule*.  
<sup>2</sup> Instrument in compliance with Law No. 179/2017 (Provisions on the protection of parties reporting offenses or irregularities they become aware of in the context of a public or private employment relationship”), which includes some of the requirements of the “Guiding Principles on Business and Human Rights”, issued by the UN in 2011.

- the definition of a gradual improvement path which, starting with simple respect for the local laws, guides the policies and processes of Human Rights towards sharing with the appropriate stakeholders through appropriate involvement initiatives;
- the highlighting of any gaps or inconsistencies between the company's various departments and/or between the different companies of the Group;
- the possibility to discuss Human Rights with the other companies.

[GRI 412-1] TIM carried out the first due diligence on Human Rights (concluded in 2014) using the tool OCAI<sup>1</sup>, and the involvement of the Group's two biggest entities in terms of workforce and investments, in other words the Domestic BU<sup>2</sup> (the percentage covered was 98% as it excluded Olivetti and TIM Sparkle) and the Brazil BU. The Sustainability Reporting, Monitoring and Relationship Department examined the questionnaires that had been filled in and conducted the related feedback with the Italian departments in order to further examine the contributions provided and define the action plans for the level two and three self-assessments (respectively 3.1% and 8.6% of all the responses)<sup>3</sup>. In Italy, at the end of the feedback, the following emerged:

- on a scale of one to six, the average score of all the answers was 4.4;
- the need to prepare the TIM Group's Human Rights policy (around 2/3 of the insufficient self-assessments regarded this aspect);
- the usefulness of organising internal Human Rights training courses.

[GRI 414-1] [GRI 414-2] The results of the audit on Human Rights carried out on the suppliers of the Group are set out in this document and in the Sustainability section of the Group's website.

## Human Rights Policy

[GRI 103-2: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] The Policy applies to every individual within the Group and also concerns Third Parties who have business dealings with TIM.

The Policy, issued in 2015<sup>4</sup>, aims to make respect for Human Rights an essential requirement in the performance of TIM's operational activities. Both in Italy and in foreign companies, the Group has set up processes through which it undertakes to respect Human Rights and has identified those that may be negatively influenced by the Company's activities, such as:

- [GRI 403-3] [GRI 406-1] [GRI 408-1] [GRI 409-1] Human rights common to all industry sectors (e.g. rights concerning health and safety at work, diversity, equality and non-discrimination, working hours, fair pay, minimum age for starting work, accessibility for disabled people, maternity protection, forced/compulsory/restricted labor, the zero tolerance approach to any form of corruption, the rights of our customers to responsible advertising, rights related to the use of armed security, according to the highest international standards and practices);
- [GRI 407-1] rights agreed with the unions and included in National Labour Agreements (in line with the principles of the International Labour Organization).

The Group's internal processes also focus on a series of individual rights affected by the *core business*, including the rights:

- associated with access to telecommunications services and innovation;

<sup>1</sup> Organizational Capacity Assessment Instrument, created by Twentyfifty Ltd. with funding from the Global Compact Network Germany Foundation. OCAI, which does not operate as an expert in compliance:

- fully reflects the "UN Guiding Principles on Business and Human Rights";
- takes into account the interpretations provided by the UN Office of the High Commissioner for Human Rights;
- In completing the OCAI, for each question, the company/department must assess its own position, current and potential, on a spectrum of six levels that range from "non-responsive" to "Human Rights promoter".

<sup>2</sup> Including Industrial Relations, Health & Safety, Equal Opportunities, Privacy, Procurement, Compliance, Protection of VAS (Value Added Services) customers, Protection of customers of the universal telephony service.

<sup>3</sup> No level one response was supplied during the first round.

<sup>4</sup> Available in Italian at the link <https://www.telecomitalia.com/content/dam/telecomitalia/documents/Sostenibilita/it/Politiche/policy-diritti-umani.pdf> and in Brazilian at the link [ri.tim.com.br/ShowCanal/Sustentabilidade?=-4K/0QqB9zIbMs3+gpxdxTA](https://ri.tim.com.br/ShowCanal/Sustentabilidade?=-4K/0QqB9zIbMs3+gpxdxTA) (the policy is also available in English on the websites of TIM S.p.A and TIM Participações).

- [GRI 418] associated with the privacy of the Group's employees, customers and suppliers, and the protection of their personal data;
- associated with freedom of expression, in particular online, supported by access to telecommunications technologies;
- potentially violated by added value services (for example, services with content reserved for adults and gambling);
- of children and young people to be protected from (cyber)bullying or harassment;
- associated with environmental protection (in particular electromagnetic fields);
- of the communities in which TIM carries out business, with particular attention to vulnerable groups of people (e.g. disabled people, minors, the elderly, women).

The Policy sets out the unfiltered and anonymous reporting mechanisms in line with the requirements of the company procedures (specifically, that relating to "whistleblowing"), available on the Group's website.

The efficiency and monitoring of the Human Rights Policy, approved by the Chairman of TIM, is ensured by the Human Resources, Organization & Real Estate Department, responsible for its observance as regards the involvement of TIM's people; the *Procurement* Department, responsible for seeing it is complied with by suppliers; the *Compliance* Department, which monitors the risk of non-compliance with the reference legislation; and the *Sustainability Reporting, Monitoring and Relationship* Department, responsible for updating the Policy.

## (In)Formation and training on human rights

[GRI 103-2: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] Following the publication of the Policy, in 2015 a classroom training course was organized and attended by representatives of the various company departments. The course was held by an external company expert in sustainability issues and was attended by the General Manager of *Amnesty International* Italy.

Moreover, an online course was created for everyone in the company, available from the end of 2015. The course, updated in autumn 2018, is available on the *TIM Academy e-learning* platform for Group employees and - from July 2019 - for all stakeholders (in Italian only) at the URL<sup>2</sup> <https://dirittiumani.gruppotim.it><sup>3</sup>.

Both the workshop and the online course highlighted, among other things:

- what Human Rights are and the main international Institutions that govern them;
- businesses and Human Rights, focusing on any impact their business activities may have on Human Rights;
- the importance of businesses that operate in the telecommunications industry in the defence of Human Rights;
- TIM and Human Rights: what can be done - in the case of doubt - by individuals of the Group for the protection of Human Rights;
- how and when to use the reporting mechanism.

In 2018 in **Brazil** TIM Participações made a version of the course respecting the local context available to all its employees on the "Conexão TIM" platform. Among its aims were to broaden knowledge of the subject among employees, in particular to highlight how Human Rights feature in day to day work.

TIM also continued to promote diversity through its internal communication channels; during the TIM Talks week, promoted by the Human Resources department for employee development, diversity was one of the topics discussed.

<sup>1</sup> Avanzi Srl, more information is available at the website [avanzi.org](http://avanzi.org).

<sup>2</sup> *Uniform Resource Locator*, that is a sequence of characters that uniquely identifies the address of a video, picture, document, etc. on a computer network, made accessible to a client (hardware or software).

<sup>3</sup> The course runs on personal computers (Internet Explorer, Chrome Firefox) while it is not accessible from smartphones.



[GRI 412-2] The training activities mainly concerned the dissemination of the Group's Policy for the Respect of Human Rights and observance of occupational Health and Safety standards.

#### Number of training hours on Human Rights in the Group

Business Unit	2019	2018	2017
Domestic	129,173.74	177,323	197,057
Brazil	4,710.1	22,581	19,269

## Complaints and incidents

[GRI 103-3: Management Approach] The Group's Code of Ethics and Conduct requires employees, collaborators and consultants, as well as third parties who have business relations with the Group - in respect of activities and services of interest to the Group - to promptly inform the Head of the TIM Audit Department, either directly or via their line manager, of any violations or collusion to violate:

- legal or regulatory requirements,
  - provisions of the Code of Ethics and Conduct,
  - internal policies and procedures,
- any irregularities and/or negligence.

The handling of reports above, also specifically those for which the Head of the Audit Department is responsible (known as "whistleblowing"), is a requirement of the Sarbanes-Oxley Act and - for some requirements - of the "UN Guiding Principles on Business and Human Rights"; in Italy this particular case is regulated by Law No. 179/2017 (Provisions on the protection of parties reporting offenses or irregularities they become aware of in the context of a public or private employment relationship").

The "Whistleblowing" procedure requires the Head of the Audit Department, who answers directly to the Board of Directors, independently of the senior executives:

- to ensure that incoming complaints are received, logged and undergo preliminary analysis;
- based on the results of the preliminary analysis, to launch a structured audit activity (if required);
- to communicate the results of the analyses to the relevant departments so that they may take the appropriate corrective actions (if required). The non-compliance is only closed once the Audit Department has verified the effectiveness of the corrective actions implemented by the relevant departments;
- to ensure the traceability and retention of the documentation regarding the complaints received and their analysis;
- to update the reporting procedure and disseminate it internally together with the Human Resources, Organization & Real Estate Department.

Employees were made aware of this in a letter from the CEO and a news item published on the company Intranet.

In 2019, a total of 165 complaints were received in Italy and 927 in **Brazil**. In the case of Italy, of the 165 complaints, 65 were anonymous and 100 non-anonymous - classified as follows:

- 75 in the context of the "Whistleblowing" procedure<sup>1</sup>;
- 86 not covered by the procedure and sent to the relevant departments for the respective checks, informing the Audit Department of the result; including:

<sup>1</sup> For example: network coverage, relations with suppliers, health and safety of workers, presumed harassment and or discriminatory conduct; those relating to Human Rights are detailed in this chapter's tables.

- 63 customer complaints (poor service);
- 23 other;
- 4 “irrelevant” ones in terms of the purpose of the procedure.

In the case of **Brazil**, of the 927 complaints, 560 were anonymous and 367 non-anonymous, classified as follows:

- 657 in the context of the “Whistleblowing” procedure<sup>1</sup>;
- 159 customer complaints (poor service);
- 111 “not inherent” to the objective of the procedure.

Below are the Human Rights-related complaints received through the main tool which TIM provides for all stakeholders to report any kind of regulatory irregularity or breach of the Code of Ethics and Conduct, and of the Human Rights Policy, i.e. the “Whistleblowing” procedure, available both on the company intranet and on the Tim website at the following link: [telecomitalia.com/content/dam/telecomitalia/documents/Governance/en/codes\\_principles\\_procedure/Procedure-Whistleblowing.pdf](https://telecomitalia.com/content/dam/telecomitalia/documents/Governance/en/codes_principles_procedure/Procedure-Whistleblowing.pdf).

#### Complaints received and handled regarding Human Rights in general

Italy	2019	of which substantiated	2018	of which substantiated	2017	of which substantiated
Total number of complaints regarding Human Rights received through the main reporting mechanisms	1 <sup>2</sup>	0	0	0	3 <sup>3</sup>	0
Handled during the reporting period	1	0	0	0	3	0
Resolved during the reporting period	0	0	0	0	2	0
Total number of complaints received prior to the survey period and resolved during the reference period	0	0	1	0	0	0

#### Brazil

Total number of complaints regarding Human Rights received through the main reporting mechanisms	11 <sup>4</sup>	3	8 <sup>5</sup>	0	5 <sup>6</sup>	0
Handled during the reporting period	11	3	8	0	5	0
Resolved during the reporting period	9	3	7	0	4	0
Total number of complaints received prior to the survey period and resolved during the reference period	1	0	1	0	0	0

<sup>1</sup> Of which 440 were of the “company” type (processes that can be improved, etc.) and 217 of TIM Participações (employees in crisis situations).

<sup>2</sup> The complaint concerned the category “privacy rights of employees and customers”.

<sup>3</sup> Two complaints concerned the rights related to access to telecommunications services and one the human resources of TIM suppliers.

<sup>4</sup> Of the eleven reports, six relate to threat or coercion (of which one was substantiated), four to the right to privacy (of which one was substantiated and one partially substantiated) and one to child labor.

<sup>5</sup> All eight complaints concerned alleged breaches of the privacy laws of customers and/or employees.

<sup>6</sup> Of the five complaints, four concerned suppliers’ failure to apply workplace health and safety rules and one the sexual exploitation of children/adolescents.

[GRI 406-1] [GRI 411-1] Complaints received and handled regarding discrimination issues

Italy	2019	of which substantiated	2018	of which substantiated	2017	of which substantiated
Total number of complaints regarding discrimination received through the main reporting mechanisms	1 <sup>1</sup>	0	0	0	3 <sup>2</sup>	1
Handled during the reporting period	1	0	0	0	3	1
Resolved during the reporting period	1	0	0	0	2	1
Total number of complaints received prior to the survey period and resolved during the reference period	0	0	1	0	0	0
Total number of complaints regarding discrimination received through the main reporting mechanisms	8 <sup>3</sup>	3	5 <sup>4</sup>	1	3 <sup>5</sup>	0
Handled during the reporting period	8	3	5	1	3	0
Resolved during the reporting period	8	3	5	1	3	0
Total number of complaints received prior to the survey period and resolved during the reference period	0	0	0	0	0	0

[GRI 411-1] No incidents of discrimination or violations of the rights of indigenous people have been reported in the Group in the last 3 years<sup>6</sup>.

<sup>1</sup>The complaint concerned the category "sex discrimination or harassment (gender)".

<sup>2</sup> The three cases of discrimination or harassment concerned, in one case religious faith, substantiated and resolved and in another, physical or mental disability, and in the last, unsubstantiated political persuasion.

<sup>3</sup>Of the eight reports, three concerned discrimination on grounds of sexual orientation (one of which was substantiated), two concerned racial discrimination, one concerned disabled people (substantiated), one concerned employee classification (substantiated) and one concerned discrimination on grounds of gender identity.

<sup>4</sup> Of the five complaints, two concerned discrimination or harassment based on ethnicity or race, two other cases (one substantiated and resolved) discrimination or harassment based on sexual orientation and in the final case discrimination based on economic-social conditions.

<sup>5</sup> Of the three complaints two concerned discrimination or harassment based on sexual orientation and one concerned discrimination or harassment based on physical appearance.

<sup>6</sup> The only geographical area with an indigenous population where TIM operates is *Brazil*; however, telecommunications activities do not have a negative impact on these populations.

## Complaints received and handled relating to labour issues

Italy	2019	of which: substantiated	2018	of which substantiated	2017	of which substantiated
Total number of complaints regarding work matters received through the formal mechanisms in the reference period	0	0	2 <sup>1</sup>	0	4 <sup>2</sup>	1
Handled during the reporting period	0	0	2	0	4	1
Resolved during the reporting period	0	0	1	0	4	1
Total number of complaints regarding work matters received previously, which were resolved in the reference period	1	0	0	0	1	0

### Brazil

Total number of complaints regarding work matters received through the formal mechanisms in the reference period	30 <sup>3</sup>	9	39 <sup>4</sup>	14	23 <sup>5</sup>	10
Handled during the reporting period	30	9	39	14	23	10
Resolved during the reporting period	25	9	38	14	21	10
Total number of complaints regarding work matters received previously, which were resolved in the reference period	1	1	0	0	0	0

TIM Participações offers its own Whistleblowing channel for clarification requests or forwarding complaints of alleged Human Rights violations by internal and external stakeholders, ensuring maximum confidentiality. A unique identification code, associated with each reported complaint, allows the complainant to check the status of the work in complete anonymity. Full information about this is available by clicking on this link: [tim.com.br/sp/canal-de-denuncias](https://tim.com.br/sp/canal-de-denuncias).

<sup>1</sup> The two complaints concerned a case of sexual harassment at work and a case involving the right of the worker to perform their work while being treated with dignity and respect (this latter was unsubstantiated and closed in 2019).

<sup>2</sup> Of the four complaints, three concerned the execution of duties in relation to the worker's dignity (one of which is substantiated and resolved) and one of harassment.

<sup>3</sup> Twenty-three complaints related to labor law violations (nine of which were substantiated), two for moral harassment (unsubstantiated) and five for sexual harassment (unsubstantiated).

<sup>4</sup> Seventeen complaints related to harassment (of which ten were substantiated and resolved), fifteen breaches of the union contract (one substantiated and settled) and seven complaints concerned sexual harassment at work (three of which substantiated and resolved).

<sup>5</sup> Eighteen complaints concerned harassment (of which nine substantiated and resolved) and five sexual harassment at work (one of which was substantiated and settled).

## Appendix

## TIM Group - Consolidated economic-financial highlights

[GRI 102-7]

(millions of euros)	Revenues *			EBITDA*			Capital expenditures			Headcount at period end (number)		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Domestic	14,078	15,031	15,031	5,708	5,955	6,171	2,912	5,518	4,551	45,496	48,200	49,851
Brazil	3,937	3,943	3,943	2,451	1,467	1,635	872	890	1,150	9,689	9,658	9,508
Other activities	-	-	-	(9)	(19)	(16)	-	-	-	13	43	70
Adjustments and eliminations	(41)	(34)	(35)	1	-	-	-	-	-	-	-	-
Consolidated total	17,974	18,940	18,940	8,151	7,403	7,790	3,784	6,408	5,701	55,198	57,901	59,429

\*For details on how accounting standards are adopted and possible reassessment of values please refer to the Note "Accounting Policies" to the Consolidated Financial Statement as of December 31, 2019 of the TIM Group.

[GRI 201-4] The total contributions, collected as part of research and innovation projects financed by national and international public bodies, amounted to 5.56 million euros in 2019 (5.3 million euros in 2018 and 5.2 million euros in 2017). It should also be noted that the total contributions received in 2019 from the Domestic BU amounted to approximately 28.3 million euros.

### Other consolidated economic-financial data

(millions of euros)	12/31/2019	12/31/2018	12/31/2017
Total Equity	22,626	21,747	23,783
- attributable to Owners of the Parent	20,280	19,528	21,557
- attributable to non-controlling interests	2,346	2,219	2,226
Profit (loss) for the year attributable to Owners of the Parent	916	(1,411)	1,121
Profit (loss) for the year attributable to Non-controlling interests	326	259	166
Net financial debt carrying amount	28,246	25,995	26,091

[GRI 201-1] **Economic value produced and distributed**

(millions of euros)	2019	2018	2017
a) Total operating revenues and other income	18,907	19,281	20,351
b) Interest income and dividends received	78	54	129
c) Gains (losses) on disposals of non-current assets	(49)	(1)	11
<b>d) Directly produced economic value (a+b+c)</b>	<b>18,936</b>	<b>19,334</b>	<b>20,491</b>
e) Operating expenses	7,555	8,649	8,824
f) Employee benefits expenses	3,077	3,105	3,626
g) Lenders	1,729	1,585	1,705
h) Duties and taxes	365	696	750
<b>i) Distributed economic value (e+f+g+h)</b>	<b>12,726</b>	<b>14,035</b>	<b>14,905</b>
<b>Non-distributed economic value (d-i)</b>	<b>6,210</b>	<b>5,299</b>	<b>5,586</b>

**Detailed expenses**

(millions of euros)	2019	2018	2017
• <b>Employee benefits expenses</b>	<b>3,077</b>	<b>3,105</b>	<b>3,626</b>
• Salary and wages	1,950	1,994	2,056
• Social security expenses	716	738	745
Sundry expenses	411	373	825
• <b>Operating expenses</b>	<b>7,555</b>	<b>8,649</b>	<b>8,824</b>
• Acquisition of goods and services	6,463	8,186	8,388
• Other operating expenses	1,501	1,135	1,097
• Change in inventories	128	(102)	(35)
Internally generated assets	(537)	(570)	(626)
• <b>Lenders</b>	<b>1,729</b>	<b>1,585</b>	<b>1,705</b>
• Distributed dividends	296	281	223
Interest expenses	1,433	1,304	1,482
• <b>Duties and taxes</b>	<b>365</b>	<b>696</b>	<b>750</b>
- Direct duties	241	571	639
- Indirect duties and taxes	124	125	111
- relating to Domestic BU	282	598	679
- relating to Brazil BU	45	74	64
- relating to foreign operations	38	24	7



For each jurisdiction where the Group permanently operates with its own company subsidiaries, the income tax expenses paid locally are shown (millions of euros)

Tax jurisdiction	2019	2018	2017
Argentina	-	0.03	0.45
Austria	- 0.02	0.02	- 0.00
Belgium	0.02	0.02	0.02
Bolivia	-	-	-
Brazil	29.94	42.78	33.64
Bulgaria	-	-	-
Chile	-	0.02	0.01
Colombia	0.08	-	0.05
Czech Republic	0.00	-	-
France	0.76	0.23	0.28
Germany	0.28	0.34	- 0.04
Greece	0.11	-	0.01
Ireland	-	-	2.30
Israel	0.44	- 0.06	0.16
Italy	85.62	684.06	1,055.23
Luxembourg	0.07	10.53	4.77
Netherlands	0.06	0.06	0.05
Panama	- 0.03	-	0.02
Paraguay	-	-	-
Peru	-	0.05	0.06
Puerto Rico	-	0.04	0.08
Romania	0.01	0.01	-
Russian Federation	0.01	-	0.01
San Marino	0.29	0.19	0.14
Singapore	-	-	-
Slovakia	0.00	0.00	-
Spain	-	- 0.04	-
Switzerland	0.03	0.02	0.04
Turkey	-	-	- 0.27
UK	-	-	0.00
USA	- 0.04	1.08	2.30
Venezuela	0.01	0.01	0.20
Virgin Islands (U.S.)	-	-	-
<b>Totals</b>	<b>117.64</b>	<b>739.38</b>	<b>1,099.51</b>

## Initiatives with stakeholders – summary tables

[GRI 102-43] [GRI 102-44]

















Dialogue Partnership

Information

Consultation






Institutions and regulatory bodies		
Stakeholders	<ul style="list-style-type: none"> <li>Themes and</li> <li>Actions/commitments</li> </ul>	Engagement methods
National institutions	<ul style="list-style-type: none"> <li>stimulate the spread of digital technologies and skills.</li> <li>protection of vulnerable groups (cyberbullying, child pornography, gambling) <ul style="list-style-type: none"> <li>Identification of the "Key Contact for the Postal Police" within Security Operations Center (SOC) function to tackle online child pornography and cybercrimes,</li> <li>Exclusive solution TIM-Protect for the total protection from web threats</li> </ul> </li> </ul>	Attend the Safer Internet Center (SIC) – Connected Generations, which Advisory Board TIM is member of (The value chain - Protection of underage children)
National institutions	<ul style="list-style-type: none"> <li>stimulate the spread of digital technologies and skills.</li> <li>fostering the development of an inclusive digital society <ul style="list-style-type: none"> <li>ScuolaDigitaleTIM (The Group - Digital culture Projects)</li> <li>Operation Digital Risorgimento (The value chain - Social Digital Inclusion)</li> </ul> </li> </ul>	Memorandum signed with the Ministry of Education, University and Research
Local institutions	<ul style="list-style-type: none"> <li>development of 5G, UBB infrastructures</li> <li>impacts of electromagnetic emissions</li> <li>stimulate the spread of digital technologies and skills</li> </ul>	Meetings, multistakeholder joint control committees (The Group - Relations with the local communities)
Local institutions	<ul style="list-style-type: none"> <li>promote the development of smart cities and 5G services</li> <li>stimulate the spread of digital technologies and skills <ul style="list-style-type: none"> <li>Operation Digital Risorgimento (The value chain - Social Digital Inclusion)</li> <li>collaboration with several municipalities to implement long-term eco-sustainability projects. REPLICATE (Florence Smart City) and the MONICA project (Turin Smart City), SMILE project (Turin Smart City). (The Environment - TIM initiatives for the environment)</li> </ul> </li> </ul>	Agreements and protocols (The Group - Relations with the local communities), in particular: Memorandum of agreement with the Municipality of Turin to strengthen the long-term collaboration to modernize the main city of Piedmont as a "digital city" (The chain of value - Research and development)
National institutions	<ul style="list-style-type: none"> <li>Security and management of emergencies</li> <li>Supporting the territory for sustainable development</li> <li>Protection of vulnerable categories</li> </ul>	Protocols, Agreements and contracts with DPC and other Institutions for managing emergencies, devices to raise the alarm in the event of the disappearance of underage children, for the localization supporting Mountain Rescue associations (The Group - Community);

		 Collaboration with DPC and MISE to design and test an IT-Alert system in the event of natural disasters (The Group - Community)
International institutions	<ul style="list-style-type: none"> <li>• Protection of vulnerable categories</li> </ul>	 Attend the working group “Alliance to better protect minors online” started by the European Commission (The chain of value - Safeguard of underage children)
Local institutions	<ul style="list-style-type: none"> <li>• development of 5G, UGG infrastructures and Research and Development</li> <li>• stimulate the spread of digital technologies and skills</li> <li>• development of innovative services for territorial control</li> </ul>	 Agreement signed with the Liguria Region, the Municipality of Genoa, Liguria Digitale, Ericsson and TIM for the Digital Lab 5G. (The chain of value - Research and development)
Local institutions, Business partners, Universities	<ul style="list-style-type: none"> <li>• development and spread of Smart City services via 5G: public safety and driverless cars, environmental monitoring and Industry 4.0.</li> </ul>	<ul style="list-style-type: none"> <li>• Memorandum of understanding with the Municipality of Turin for the joint development of activities and solutions for innovation applications related to the smart city. (The chain of value - Research and development)</li> </ul>
Universities and other partners	<ul style="list-style-type: none"> <li>• stimulate the spread of digital technologies and skills</li> </ul>	 Contributes as a partner to the efforts undertaken by the Industry Manufacturing 4.0 (CIM 4.0) to develop the spread of 4.0 technology in production processes, products and business models (The chain of value - Research and development)
Universities	<ul style="list-style-type: none"> <li>• Development of innovative technologies and applicable solution, particularly in terms of 5G, IoT.</li> <li>•</li> </ul>	 Open Innovation research areas with nine Italian universities (The chain of value - Research and development)
Universities	<ul style="list-style-type: none"> <li>• stimulate the spread of digital technologies and skills</li> </ul>	 Unistem Reloaded and Unistem tour, 2019-2020 joint action for the spread of STEM subjects (The Group - Community)
National institutions Educational institutions	<ul style="list-style-type: none"> <li>• stimulate the spread of digital technologies and skills</li> </ul>	 <b>Brazil.</b> TIM Tec project (The Group - Community)

Stakeholders	<ul style="list-style-type: none"> <li>Themes and</li> <li>Actions/commitments</li> </ul>	Engagement methods
Non-profit organizations and associations, Research institutions, National Institutions	<ul style="list-style-type: none"> <li>the spread of digital technologies and skills</li> <li>development of an inclusive digital society</li> </ul>	 Agreement FTIM and MUIR and CNR ITD and NAP for the testing of a platform training teacher for inclusive hybrid classes (The Group - Community)
Non-profit organizations and associations	<ul style="list-style-type: none"> <li>development of an inclusive digital society</li> </ul>	 Ten-year FTIM project "Dislessia Amica" in collaboration with the Italian Dyslexia Association, with the goal of certifying 85% of Italian schools as "dyslexia-friendly" (The Group - Community)
Non-profit organizations and associations, 107 residents in provincial towns, TIM volunteers	<ul style="list-style-type: none"> <li>stimulate the spread of digital technologies and skills</li> <li>fostering the development of an inclusive digital society.</li> </ul>	 Operation Digital Risorgimento, training courses in the classroom and in the square, feedback collection. (The chain of value - Digital inclusion)
Non-profit organizations and associations	<ul style="list-style-type: none"> <li>Ethics and integrity</li> <li>Fight against corruption; transparency</li> </ul>	 Attend the Business Integrity Events of Transparency International - June 2019 (The Group - Fight against corruption)
users, public and private institutions, researchers	<ul style="list-style-type: none"> <li>To promote multi-stakeholder collaboration for the creation of new 5G solutions in various areas (health, safety, smart cities, agrarian production).</li> </ul>	 <b>Brazil.</b> TIM Participações promoted the Living Labs to discuss, share knowledge and collaborate on 5G technology. (The chain of value - Digital inclusion)
Non-profit organizations and associations	<ul style="list-style-type: none"> <li>development of an inclusive digital society</li> </ul>	 <b>Brazil.</b> Collaboration between TIM Institute and UNICEF to guarantee the right to education to about 3.8 million children (The Group - Community)
Research institutions and groups	<ul style="list-style-type: none"> <li>safeguarding privacy and personal data protection and security;</li> </ul>	 Participation in the four-year project CONCORDIA <sup>1</sup> (Cyber security cOmpeteNce fOr Research and INNOvAtion <sup>2</sup> ), part of the European research project Horizon 2020 (The chain of value/Research and innovation in e-security)







<sup>1</sup> <https://www.concordia-h2020.eu/>

<sup>2</sup> Expertise in cyber security for research and innovation.

Customers		
Stakeholders	<ul style="list-style-type: none"> <li>Themes and</li> <li>Actions/commitments</li> </ul>	Engagement methods
Consumer customers and business costumers	<ul style="list-style-type: none"> <li>Quality of service, respect for customers, care for the relationship, capacity for innovation <ul style="list-style-type: none"> <li>Transformation process “TIM around the Customer” which involves all employees in a number of initiatives to enhance customer experience and strengthen the relation with the brand.</li> <li>Interactive communication channels with customers (My TIM App and Website and social network) for a more reactive response to their needs and to keep them involved.</li> </ul> </li> </ul>	 Wide system for listening to customers and identifying customer experience in various "true moments" of the customer journey <sup>1</sup> , such as the CSI (The chain of value/Customer satisfaction) <sup>2</sup>
Consumer customers and business costumers	<ul style="list-style-type: none"> <li>Customer satisfaction, quality of service <ul style="list-style-type: none"> <li>investments for the evolution of digital environment and channel “My TIM App” to enhance the services offered and customer experience.</li> </ul> </li> </ul>	 <b>Brazil.</b> Three types of customer satisfaction surveys, conducted on a national basis through interviews: on line with consumer customers, over the phone with business mobile customers, “Call center Satisfaction Survey”, and mobile customers “Call Center Transactional Survey” (The chain of value/Customer satisfaction)
Consumer Associations	<ul style="list-style-type: none"> <li>Customer satisfaction, quality of service</li> </ul>	 Collaboration with consumer associations (“joint conciliation”) and with the CoReCom for the settlement of disputes with customers. (The chain of value/Customers/Conciliation procedures)
Consumer Associations	<ul style="list-style-type: none"> <li>Customer satisfaction, quality of service</li> <li>development of 5G infrastructures</li> <li>impacts of electromagnetic emissions</li> </ul>	 In December 2019 a new collaboration agreement with some Consumer Associations were pre-announced (signed in February 2020), to strengthen the dialog on more delicate themes. (The chain of value/Customers/Conciliation procedures)
Consumer Associations	<ul style="list-style-type: none"> <li>Customer satisfaction, quality of service</li> </ul>	 In Brazil, TIM Participações participates in initiatives in collaboration with the agencies that constitute the Consumer Protection System (Forum for Conciliation, Consumidor.gov.br web platform) and has set up its own (Board of Users) for the reduction of complaints in court.


<sup>1</sup> The *customer journey* is the set of experiences that a customer has when interacting with a company for a specific need, from the first contact with the company, through a specific channel, until, going through one or more touch points provided by the company itself or by other consumers, the expected result is achieved or not.

<sup>2</sup> Customer satisfaction







The supply chain		
Stakeholders	<ul style="list-style-type: none"> <li>Themes and</li> <li>Actions/commitments</li> </ul>	Engagement methods
Startups, ICT partners, Universities	<ul style="list-style-type: none"> <li>5G, UBB networks evolution</li> <li>Research and Development for new solutions and services,</li> <li>Capacity for innovation in processes and business models</li> <li>the spread of digital technologies and skills <ul style="list-style-type: none"> <li>TIM Wcap acceleration programme and venture investments by TIM Ventures</li> </ul> </li> </ul>	 Various areas of collaboration and co-design in Open Innovation mode both in the five TIM Wcap regional hubs and the IOT Open lab (The chain of value - Research and development)
Suppliers and technology partners	<ul style="list-style-type: none"> <li>Innovation, Research and Development of technologies, telecommunication applications and services</li> </ul>	 <b>Brazil.</b> TIM Lab Innovation Center, a space for open innovation; aims to identify new approaches for the creation and deployment of telecommunication network infrastructures, promote partnerships with universities and research institutes.
Manufacturing companies, ICT partners, peer operators	<ul style="list-style-type: none"> <li>integrating social and environmental aspects in the supply chain</li> <li>climate change</li> <li>circular economy <ul style="list-style-type: none"> <li>audit of relevant suppliers and sub-suppliers (124 in 2019)</li> <li>enhancement programs (health and safety, environment, working hours)</li> <li>training programs</li> </ul> </li> </ul>	 Participation in activities related to the initiative Joint Audit Cooperation - JAC <sup>1</sup> (The chain of value - Sustainability assessment)
Service companies	<ul style="list-style-type: none"> <li>Research and development in AI to innovate products and services and the TIM offer</li> </ul>	 Signature of a strategic agreement with Microsoft (The chain of value - Research and development)
Manufacturing companies	<ul style="list-style-type: none"> <li>Innovation of 5G networks and platforms, development and acceleration of the industrialization of services, in particular for 5G</li> </ul>	 Innovation partnership with Huawei and Cisco. (The chain of value - Research and development)
Manufacturing companies, service companies, business partners	<ul style="list-style-type: none"> <li>fostering the development of an inclusive digital society</li> <li>stimulate the spread of digital technologies and skills, in particular in the agricultural sector</li> </ul>	 <b>Brazil.</b> In 2019 TIM created the ConnectarAgro2 ecosystem and pursued partnerships with Nokia and BR Digital to connect rural areas (The chain of value - Research and development)
4,149 licensed vendors	<ul style="list-style-type: none"> <li>Transparency, improving communication and optimization of operating processes.</li> </ul>	 The Vendor Hub Portal counts (The chain of value/Suppliers)
Suppliers at greater risk at the qualification stage; periodically, to suppliers already qualified	<ul style="list-style-type: none"> <li>better offer conditions, improved quality, compliance with the Code of Ethics and Conduct of TIM, the security rules, the environment and human rights, improve the sustainability of the supply chain</li> </ul>	 Self-assessment questionnaire in terms of sustainability periodic sustainability audits made by third-party companies on suppliers of the classes with the highest risk. (The value chain/Sustainability throughout the supply chain).

<sup>1</sup> Further information is available on the jac-initiative.com website.

<sup>2</sup> (<https://conectaragro.com.br/>)

100% new suppliers registered	<ul style="list-style-type: none"> <li>• integrating social and environmental aspects in the supply chain</li> <li>• correctness of corporate conduct</li> </ul>	 questionnaire where the supplier commits both itself and its sub-contractors, collaborators and employees, to observe the principles contained in the Code of Ethics and Conduct of the Group. <sup>1</sup> (The value chain/Suppliers)
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## Business community of the sector



Stakeholders	<ul style="list-style-type: none"> <li>• Themes and</li> <li>• Actions/commitments</li> </ul>	Engagement methods
Foreign industry associations and federations	<ul style="list-style-type: none"> <li>• Innovation of networks and platforms, development and acceleration of the industrialization of services, in particular for 5G</li> <li>• reducing energy consumption and fighting climate change</li> <li>• impacts of electromagnetic emissions</li> </ul>	 Participate as a member to the activities of 29 standardization institutions and associations (The chain of value - Research and Development)
Industry associations	<ul style="list-style-type: none"> <li>• impacts of electromagnetic emissions               <ul style="list-style-type: none"> <li>▪ issuing guide lines</li> <li>▪ support with and training on local aspects of planning</li> <li>▪ development of software tools to assess exhibitions</li> <li>▪ regional joint TIM-ARPA round tables</li> </ul> </li> </ul>	 Participation in committees and work groups of Comitato Elettrotecnico Italiano (CEI)
Other Authorized Operator	<ul style="list-style-type: none"> <li>• Development of the 5G network infrastructure</li> </ul>	 INWIT. Partnership with Vodafone to optimize investment (Value chain/Research and development)
Other mobile operators in Brazil	<ul style="list-style-type: none"> <li>• fostering the development of an inclusive digital society</li> <li>• reducing energy consumption</li> <li>• optimizing costs and resources to develop a network architecture</li> </ul>	 <b>Brazil.</b> <sup>2</sup> LTE RAN sharing agreement (Value chain/Research and development)
Other mobile operators, OTT, peer operators, suppliers	<ul style="list-style-type: none"> <li>• development of and experimentation with new technologies and solutions for the network infrastructure</li> <li>• creating universal standards to guarantee interaction for suppliers</li> <li>• improving suppliers' offer capacity</li> </ul>	 <b>Brazil.</b> TIM Participações is still participating in the collaborative Telecom Infra Project (TIP) (Value chain/Research and development).
Foreign industry associations and federations	<ul style="list-style-type: none"> <li>• cyber security</li> </ul>	 <sup>3</sup> Participation, in relation to ETSI, in the work of TC CYBER (Value chain/Protecting privacy and personal data)



<sup>1</sup> In Brazil the percentage was 96%.

<sup>2</sup> Sharing of the "Radio Access Network".

<sup>3</sup> European Telecommunications Standards Institute.



Foreign industry associations and federations	<ul style="list-style-type: none"> <li>• Network and services security, fraud and cyber crime</li> </ul>	 Participation in the work of the GSM Association's fraud and security group <sup>1</sup> , as Deputy Chairman. <ul style="list-style-type: none"> <li>• Collaboration, in relation to 3 GPP<sup>2</sup> SA<sup>3</sup> SECAM<sup>4</sup>, in defining the safety requirements of the 5G infrastructure.</li> <li>• Participation, in relation to ETNO<sup>5</sup>, in the work of the subgroup Computer Emergency Response Team Task Force (CERT TF)<sup>6</sup>. (Value chain/Protection of privacy and personal data)</li> </ul>
Foreign industry associations	<ul style="list-style-type: none"> <li>• Protection of vulnerable categories</li> </ul>	 Participation in work groups in relation to "Mobile Alliance against Child Sexual Abuse Content (GSMA)" to protect children on mobile phones (Value chain/Child protection)

Financial community		
Stakeholders	<ul style="list-style-type: none"> <li>• Themes and</li> <li>• Actions/commitments</li> </ul>	Engagement methods
institutional and retail investors, small shareholders' associations, bondholders, socially responsible investors, equity and credit analysts.	<ul style="list-style-type: none"> <li>• Updated information, financial and non-financial, on the Group, with the greatest attention to the needs of all the various categories of stakeholders</li> </ul>	 On the Group's website <sup>7</sup> and in the shareholders' club "TI Alw@ys ON" <sup>8</sup> , TIM provides important information to individual investors individuali and the general public (about 96,000 active members in 2019). (The TIM Group/Stakeholders engagement).
Shareholders, bondholders, socially responsible investors, equity and credit analysts.	<ul style="list-style-type: none"> <li>• cash generation and potential support for the Group's deleverage path with extraordinary options;</li> <li>• the network sharing agreement signed with Vodafone to develop 5G and share the mobile network;</li> <li>• the consumer credit agreement with Santander and the set-up of a dedicated joint venture;</li> <li>• the agreement with Google Cloud to develop and push TIM in the Italian market for the cloud, with a focus on dynamics of data center development;</li> <li>• potential forms of association with Open Fiber;</li> <li>• 5G and potential competitive development;</li> <li>• growth of customers served by FTTx technology, convergent services and</li> </ul>	 In 2019, the Investor Relations function ran more than 900 direct, group and individual meetings, with audio or video. There were four calls when the annual and quarterly results were announced, road shows and meetings at the Group's offices (reverse road shows), and the Group took part in the main conferences in the TLC sector.

<sup>1</sup> Fraud and security.

<sup>2</sup> The 3rd Generation Partnership Project.

<sup>3</sup> Security Assurance.

<sup>4</sup> SECurity Assurance Methodology.

<sup>5</sup> European Telecommunications Network Operators' Association.











<sup>6</sup> Computer Emergency Response Team Task Force.






<sup>7</sup> (<https://www.telecomitalia.com/tit/it/investors.html>)

<sup>8</sup> (<https://www.telecomitalia.com/tit/it/investors/azioni/investitori-individuali/club-tialwayson.html>)

- penetration of business customers into ICT services;
- big opportunities to reduce costs;
- CAPEX trend;
- development of TIM Brasil and positive results;
- Corporate Governance topics.

## People

Stakeholders	<ul style="list-style-type: none"> <li>• Themes and</li> <li>• Actions/commitments</li> </ul>	Engagement methods
30,000 employees (64% of the company's people)	<ul style="list-style-type: none"> <li>• development of the Company's human capital</li> <li>• encouraging diversity and favoring equal opportunities in the Company;</li> <li>• effectiveness of management</li> <li>• engagement and personal satisfaction <ul style="list-style-type: none"> <li>▪ Action plans on areas monitored, including under the "Donna" project launched in 2019</li> <li>▪ New engagement survey in 2020</li> </ul> </li> </ul>	 Engagement survey 2019 (Value chain/Commitment to our people)
9,042 employees (96% of the total)	<ul style="list-style-type: none"> <li>• managing the workforce</li> <li>• development of the Company's human capital</li> <li>• effectiveness of management</li> <li>• engagement and personal satisfaction</li> </ul>	 <b>Brazil.</b> Corporate climate survey (Value chain/Commitment to our people)
managers, professionals and office workers	<ul style="list-style-type: none"> <li>• development of the Company's human capital</li> <li>• effectiveness of management</li> </ul>	 In 2018, the performance management process involved 99.8% of people and 86% received feedback from their superior. (Value chain/Research and development). 
Millennials at TIM S.p.A. (about 300 people)	<ul style="list-style-type: none"> <li>• Stakeholder engagement</li> </ul>	 Self-engagement map (SEM): new tool for assessing the level of engagement Value chain/Development and new skills)
4,300 people in technical fields	<ul style="list-style-type: none"> <li>• development of skills to handle new technologies</li> </ul>	 Skill assessment projects (Value chain/Research and development)
all the TIM Group's employees, including new hires	<ul style="list-style-type: none"> <li>• safeguarding privacy and personal data protection and security</li> </ul>	 Online form for training on the GDPR updated, with obligation of use, after updating policy and procedure. Other training initiatives are dedicated to specific categories of employee and manager. (Value chain/Protection of privacy and personal data)
Heads of all company departments.	<ul style="list-style-type: none"> <li>• safeguarding privacy and personal data protection and security</li> </ul>	 <b>Brazil</b> In 2019, TIM Participações held seminars to spread a culture of privacy, in the interests of
Customer care operators	<ul style="list-style-type: none"> <li>• development of skills to handle new technologies</li> <li>• proper customer relationship management;</li> </ul>	 Various methods of involvement and continuous refreshment on the web portal "TUO" (Find, USE, and Plan" and 

		weekly gamification <sup>1</sup> initiative for agents (Value chain/Customers/Customer satisfaction)
All the company's people	<ul style="list-style-type: none"> <li>development of the Company's human capital</li> <li>engagement</li> </ul>	 <b>Brazil.</b> Management of performance, using a personalized approach for various areas of the company and new tool "Mais Feedback". (Value chain/Research and development).
Trade unions, TIM people	<ul style="list-style-type: none"> <li>managing the workforce</li> <li>development of the company's human capital (new hires and new qualifications for TIM people)</li> <li>Work-life balance</li> <li>Development of people and skills <ul style="list-style-type: none"> <li>"Expansion contract"</li> <li>New flexible working methods</li> </ul> </li> </ul>	 Agreements between social partners as part of the negotiation to renew the second-level contract (Value chain/TIM people)
Trade unions,	<ul style="list-style-type: none"> <li>managing the workforce</li> <li>Profit-sharing program in 2019</li> <li>renewal of 2019-2020 collective bargaining contract (approved by 98% of 2,000 employees with the right to vote)</li> </ul>	 <b>Brazil.</b> 19 meetings with the trade union representatives (Value chain/TIM people)
TIM people	<ul style="list-style-type: none"> <li>managing the health and safety of workers <ul style="list-style-type: none"> <li>the Safety Steering Committee has committed to reaching the target of zero accidents</li> </ul> </li> </ul>	 SicurinTIM project, lasting 12 months from November 2019, with various initiatives. (Value chain/TIM people)
TIM people, family members and friends	<ul style="list-style-type: none"> <li>protect diversity and promote equal opportunities in the Company;</li> </ul>	 calendar of initiatives for spreading and raising awareness of a culture of diversity.

<sup>1</sup> It consists of applying typical elements of gaming (e.g. scoring, competition with others, game rules) to other areas of activity, generally as an online marketing technique to encourage involvement with a product or service.

Table of the links between topics covered by Decree 254/16, topics which emerged as material in the TIM materiality analysis and the adopted GRI reporting standard. Evidence of limits

Legislative Decree 254/2016 topic	Material topic 2019 TIM	GRI Standard Topic Disclosure (2006)	Corporate boundary	External boundary
<b>Environmental</b>	Reducing the environmental impact of TIM's operations	GRI 302: Energy GRI 305: Emissions	Group TIM	Group TIM contributes indirectly through the relationship with suppliers and business partners
	Integrating social and environmental aspects in the supply chain	GRI 308: Supplier Environmental Assessment GRI 414: Supplier Social Assessment	Group TIM	Group TIM contributes indirectly through the relationship with suppliers and business partners
<b>Social</b>	Fair management of customer relations	GRI 417: Marketing and Labeling	Group TIM	-
	Safeguarding privacy and personal data security and protection	GRI 418: Customer Privacy	Group TIM	-
	Integrating social, environmental and governance aspects into corporate strategies	Non GRI topic	BU Domestic	-
	Stakeholders engagement	GRI 102-43: Approach to stakeholder engagement	Group TIM	-
	Impacts of electromagnetic emissions	GRI 416: Customer Health and Safety	BU Domestic	-
	Fostering the development of an inclusive digital society	Non GRI topic	Group TIM	-
	Stimulate the spread of e-technologies and e-skills	Non GRI topic	Group TIM	Group TIM contributes indirectly through the relationship with suppliers and business partners
	Investments in 5G, UBB infrastructures development and in R&D	GRI 203: Indirect Economic Impacts	Group TIM	BU Domestic contributes indirectly through the relationship with suppliers and institutions
	Protection of vulnerable groups (Cyberbullying, child pornography, gambling)	GRI 416: Customer Health and Safety	BU Domestic	Group TIM contributes indirectly through the relationship with suppliers and institutions
<b>Employee issues</b>	Managing the workforce	GRI 401: Employment GRI 402: Labor/Management Relations	Group TIM	-
	Managing workers' health and safety	GRI 403: Occupational Health and Safety	Gruppo TIM	Group TIM contributes indirectly through the relationship with suppliers
	Development of the company's human capital	GRI 404: Training and Education	Gruppo TIM	-
	Protect diversity and promote equal opportunities in the company	GRI 405: Diversity and Equal Opportunity GRI 406: Non-discrimination	Gruppo TIM	-
<b>Respect of human rights</b>	Promoting and safeguarding human rights	GRI 406: Non-discrimination GRI 407: Freedom of Association and Collective Bargaining GRI 408: Child Labor GRI 409: Forced or Compulsory Labor GRI 410: Security Practices GRI 412: Human Rights Assessment )	Group TIM	Group TIM contributes indirectly through the relationship with suppliers and business partners
<b>Fight against corruption</b>	Correctness of the corporate conduct	GRI 205: Anti-corruption GRI 206: Anti-competitive Behavior GRI 415: Public Policy GRI 419: Socioeconomic Compliance	Group TIM	Group TIM contributes indirectly through the relationship with suppliers and business partners

[GRI 102-55] GRI CONTENT INDEX (2016)  
for “In accordance”- Comprehensive

GENERAL DISCLOSURES

GRI Standard	Disclosure	Page number(s) and URL(s)	Omission
<b>GRI 101: Foundation 2016</b>			
<b>GRI 102: General Disclosures 2016</b>			
<b>Organizational profile</b>			
	102-1	Name of the organization	13
	102-2	Activities, brands, products, and services	13
	102-3	Location of headquarters	13
	102-4	Location of operations	13
	102-5	Ownership and legal form	13
	102-6	Markets served	13
	102-7	Scale of the organization	13, 15, 16, 91, 162
	102-8	Information on employees and other workers	91, 92, 115, 116
	102-9	Supply chain	147
	102-10	Significant changes to the organization and its supply chain	10, 13, 14
	102-11	Precautionary Principle or approach	27, 40
	102-12	External initiatives	30, 128
	102-13	Membership of associations	30
<b>Strategy</b>			
	102-14	Statement from senior decision-maker	4
	102-15	Key impacts, risks, and opportunities	40
<b>Ethics and integrity</b>			
	102-16	Values, principles, standards, and norms of behavior	30
	102-17	Mechanisms for advice and concerns about ethics	28
<b>Governance</b>			
	102-18	Governance structure	25, 26, 29
	102-19	Delegating authority	25, 27, 29
	102-20	Executive-level responsibility for economic, environmental, and social topics	27, 29
	102-21	Consulting stakeholders on economic, environmental, and social topics	27, 29
	102-22	Composition of the highest governance body and its committees	25, 26
	102-23	Chair of the highest governance body	27
	102-24	Nominating and selecting the highest governance body	25, 26
	102-25	Conflicts of interest	27
	102-26	Role of highest governance body in setting purpose, values, and strategy	27, 29
	102-27	Collective knowledge of highest governance body	26
	102-28	Evaluating the highest governance body's performance	26
	102-29	Identifying and managing economic, environmental, and social impacts	27, 40
	102-30	Effectiveness of risk management processes	27, 40

## GENERAL DISCLOSURES

GRI Standard	Disclosure		Page number(s) and URL(s)	Omission
	102-31	Review of economic, environmental, and social topics	26, 29	
	102-32	Highest governance body's role in sustainability reporting	27, 29	
	102-33	Communicating critical concerns	28	
	102-34	Nature and total number of critical concerns	28	
	102-35	Remuneration policies	28, 29	
	102-36	Process for determining remuneration	28	
	102-37	Stakeholders' involvement in remuneration	28, 99	
	102-38	Annual total compensation ratio	100	The ratio between the annual total compensation of the highest paid individual and the median annual total compensation for all employees was not disclosed for confidentiality constraints. It was judged to fall under the category of information subject to the "Policy for the classification and management of confidentiality information" in that the datum, once disclosed and if not properly understood, could cause the company a reputational damage.
	102-39	Percentage increase in annual total compensation ratio	100	The ratio between the annual total compensation of the highest paid individual and the median annual total compensation for all employees was not disclosed for confidentiality constraints. It was judged to fall under the category of information subject to the "Policy for the classification and management of confidentiality information" in that the datum, once disclosed and if not properly understood, could cause the company a reputational damage.
<b>Stakeholder engagement</b>				
	102-40	List of stakeholder groups	34	
	102-41	Collective bargaining agreements	103	
	102-42	Identifying and selecting stakeholders	35	
	102-43	Approach to stakeholder engagement	35, 36 122-128, 143, 145, 146, 165	
	102-44	Key topics and concerns raised	36, 122, 124-128, 143, 145, 146, 165	
<b>Reporting practice</b>				
	102-45	Entities included in the consolidated financial statements	10, 13	
	102-46	Defining report content and topic Boundaries	10, 37	
	102-47	List of material topics	10, 40	
	102-48	Restatements of information	10 13	
	102-49	Changes in reporting	40	
	102-50	Reporting period	10	
	102-51	Date of most recent report	10	
	102-52	Reporting cycle	10	
	102-53	Contact point for questions regarding the report	2	
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## MATERIAL DISCLOSURES

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	103-1	Explanation of the material topic and its Boundaries	73, 77, 81, 84
	103-2	The management approach and its components	73, 76, 84, 86, 87
	103-3	Evaluation of the management approach	75, 76, 77, 81, 83, 84
	203-1	Infrastructure investments and services supported	73, 75, 80, 83, 84, 140, 142
	203-2	Significant indirect economic impacts	83, 85, 87, 140, 142
<b>Anti-corruption</b>			
	103-1	Explanation of the material topic and its Boundaries	31, 32
	103-2	The management approach and its components	32
	103-3	Evaluation of the management approach	32
	205-1	Operations assessed for risks related to corruption	31, 32
	205-2	Communication and training about anti-corruption policies and procedures	33
	205-3	Confirmed incidents of corruption and actions taken	32
<b>GRI 206 Anti-competitive Behavior</b>			
	103-1	Explanation of the material topic and its Boundaries	33
	103-2	The management approach and its components	33
	103-3	Evaluation of the management approach	33
	206-1	Legal action for anti-competitive behavior, antitrust and monopoly practice	33, 34
<b>Energy</b>			
	103-1	Explanation of the material topic and its Boundaries	54
	103-2	The management approach and its components	55
	103-3	Evaluation of the management approach	55
	302-1	Energy consumption within the organization	61, 64
	302-2	Energy consumption outside of the organization	61
	302-3	Energy intensity	64
	302-4	Reduction of energy consumption	61
	302-5	Reductions in energy requirements of products and services	60
			Energy consumption outside the organization is not reported
			The quantity of product consumption reductions is not expressed as the company has no product lines.
<b>Emissions</b>			
	103-1	Explanation of the material topic and its Boundaries	54
	103-2	The management approach and its components	55
	103-3	Evaluation of the management approach	54, 67, 69
	305-1	Direct (Scope 1) GHG emissions	67
	305-2	Energy indirect (Scope 2) GHG emissions	67
	305-3	Other indirect (Scope 3) GHG emissions	69
	305-4	GHG emissions intensity	69
	305-5	Reduction of GHG emissions	67
	305-6	Emissions of ozone-depleting substances (ODS)	68, 69
	305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	67
			Not Applicable. Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ) and other air emissions from TIM Group's operations and activities are negligible and therefore not reported.



## MATERIAL DISCLOSURES

GRI Standard	Disclosure	Page number(s) and URL(s)	Omission
<b>Supplier Environmental Assessment</b>			
	103-1	Explanation of the material topic and its Boundaries	147
	103-2	The management approach and its components	147, 148, 149, 150, 151
	103-3	Evaluation of the management approach	152
	308-1	New suppliers that were screened using environmental criteria	148, 149
	308-2	Negative environmental impacts in the supply chain and actions taken	148, 150
<b>Employment</b>			
	103-1	Explanation of the material topic and its Boundaries	88
	103-2	The management approach and its components	88, 89
	103-3	Evaluation of the management approach	88
	401-1	New employee hires and employee turnover	91, 116, 117
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	114
	401-3	Parental leave	91, 117
<b>Labor/Management Relations</b>			
	103-1	Explanation of the material topic and its Boundaries	103
	103-2	The management approach and its components	89, 103
	103-3	Evaluation of the management approach	104
	402-1	Minimum notice periods regarding operational changes	103
<b>Occupational Health and Safety</b>			
	103-1	Explanation of material topic and its Boundaries	106
	103-2	The management approach and its components	106
	103-3	Evaluation of the management approach	88
	403-1	Workers representation in formal joint management-worker health and safety committees	106
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	108, 118
	403-3	Workers with high incidence or high risk of diseases related to their occupation	107, 155
	403-4	Health and safety topics covered in formal agreements with trade unions	106, 109
<b>Training and Education</b>			
	103-1	Explanation of the material topic and its Boundaries	94
	103-2	The management approach and its components	89, 94
	103-3	Evaluation of the management approach	96
	404-1	Average hours of training per year per employee	99, 118
	404-2	Programs for upgrading employee skills and transition assistance programs	95, 96, 97
	404-3	Percentage of employees receiving regular performance and career development reviews	94, 95

## MATERIAL DISCLOSURES

GRI Standard	Disclosure	Page number(s) and URL(s)	Omission
<b>Diversity and Equal Opportunity</b>			
	103-1	Explanation of the material topic and its Boundaries	92
	103-2	The management approach and its components	112
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