



Sustainability Report 2018

Consolidated
Non-Financial Statement 2018



[GRI 102-53]

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Letter from the Chief Executive Officer

Every company with a long-term vision sees the pursuit of its own growth and the growth of the communities where it operates as integral parts of this vision. Growth always means “growing together”. In TIM we call this sustainability, a simple principle that underlies value creation.

Our business strategy is aligned with the collective need for innovation. In keeping with our Ethical Principles, we strive to minimise the environmental impact of our work. With the great skill and professionalism that have driven the country’s communication evolution, we have always been at the forefront of digitalisation development, because the heart of our mission is to produce value that supports the well-being of current and future generations while being committed to following the principles of the UN Global Compact.

With this strategic role in mind, those who work in TIM are constantly engaged in the innovation of infrastructure and technology, at the service of individuals and the country. As part of this work, our investment programme for ultrabroadband coverage has set significant targets to support our continuous progress towards a digital economy.

This focus on innovation and investment in new infrastructure and technology is also the foundation of TIM’s activities in Brazil, a country where the Group has been operating for over 20 years and one which represents our second reference market.

We put our infrastructure and technology at the service of all the countries in which we operate, promoting a true digital culture with access for everybody to services that improve the quality of life. Our commitment makes us a key player in the *gigabit society* with its increasingly innovative and complex services that represent a growth opportunity for the entire ICT sector.

TIM has always paid close attention to the environmental impact of all its activities. In our work to protect the environment we are constantly looking at ways to improve our efficiency by lowering the consumption of natural resources and our use of energy. We achieve this through investment in modernising our plants and in the ongoing search for the most appropriate management solutions. Every year we set ourselves targets for reducing our emissions and our energy consumption, despite the continuous development of new generation networks. Our Group also contributes to the reduction of our customers’ energy consumption and emissions, by developing and offering digital products and solutions.

It is TIM’s people that transform our ambitions into reality and because of this we have begun to use a model of *continuous learning* to support the digital transformation and ensure we have the skills required to achieve it. These measures are essential for the growth and strategic development of the entire sector.

In this way, TIM has become a *knowledge company*: being market and technology leaders depends on the skills of those who work for TIM and through sharing our knowledge and valuing our diversity. This is also our added value that allows us to meet our business objectives.

With courage, dedication and skill we will continue to work to secure TIM’s role as the cornerstone of the country’s development and digitalisation, because we are highly aware of our responsibility to those who look to us for a smarter, more inclusive and sustainable future.

Luigi Gubitosi
Chief Executive Officer

[GRI 102-14]

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NOTE ON METHODOLOGY

[GRI 102-56]

Scope and criteria

The Consolidated 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. For TIM, this Statement, which coincides with the Sustainability Report, represents the result of the commitment to notify its stakeholders of the performances and results achieved in the sustainability area, already undertaken in previous years.

[GRI 102-45] The Statement contains data and information referring to the Company TIM S.p.A. and its fully consolidated subsidiaries as at 31 December 2018 (hereinafter “the TIM Group” or “the Group”), as presented in the Annual Financial Report. The environmental performance data is detailed with some limitations with respect to the Group scope. These limitations are not important to understand the Company’s activities, performance, results or the impact produced by the Group.

[GRI 102-50] [GRI 102-51] [GRI 102-52] The 2018 Sustainability Report, prepared annually over the calendar year, respects the same deadlines as the Group Annual Financial Report and meets the obligations envisaged by Legislative Decree 254/2016. 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.

[GRI 102-10] [GRI 102-48] No significant changes were recorded in the consolidation area in 2018.

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 “TIM Institute”, 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, even though this information is not part of the consolidation scope of the quantitative information contained in the document.

[GRI 102-54] The Sustainability Report abides by the guidelines of the Global Reporting Initiative (GRI) Standards (comprehensive option) and the process suggested by the principles of the AA1000APS (inclusiveness, materiality, responsiveness). References to the GRI indicators are given to provide a greater understanding and highlighted in the text 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:

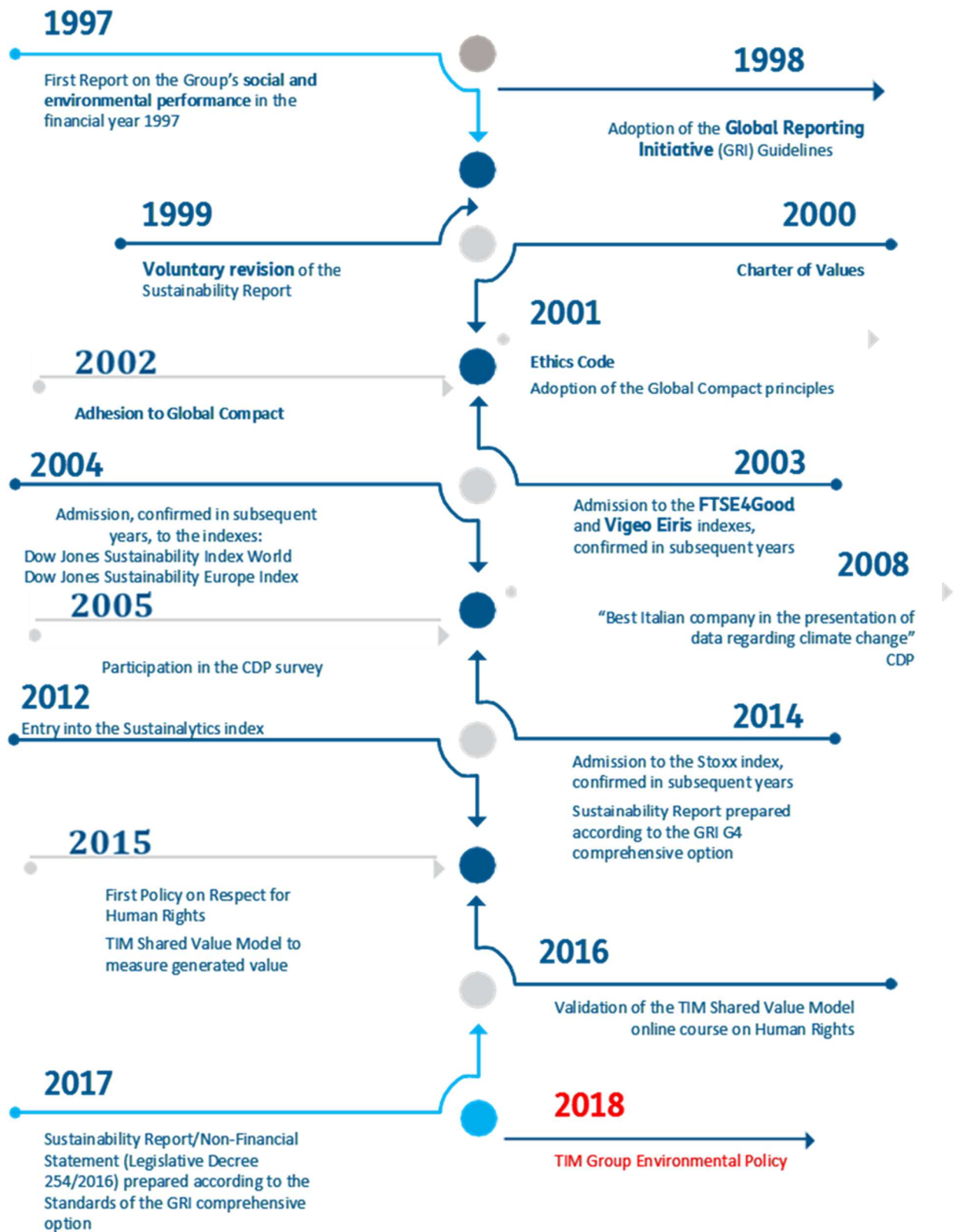
- the analysis of the GRI, an international organisation which develops universally applicable guidelines for the drafting of sustainability reports;
- the demands received from stakeholders;
- the questionnaires sent out by the leading rating agencies for the purpose of admission to the stock market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

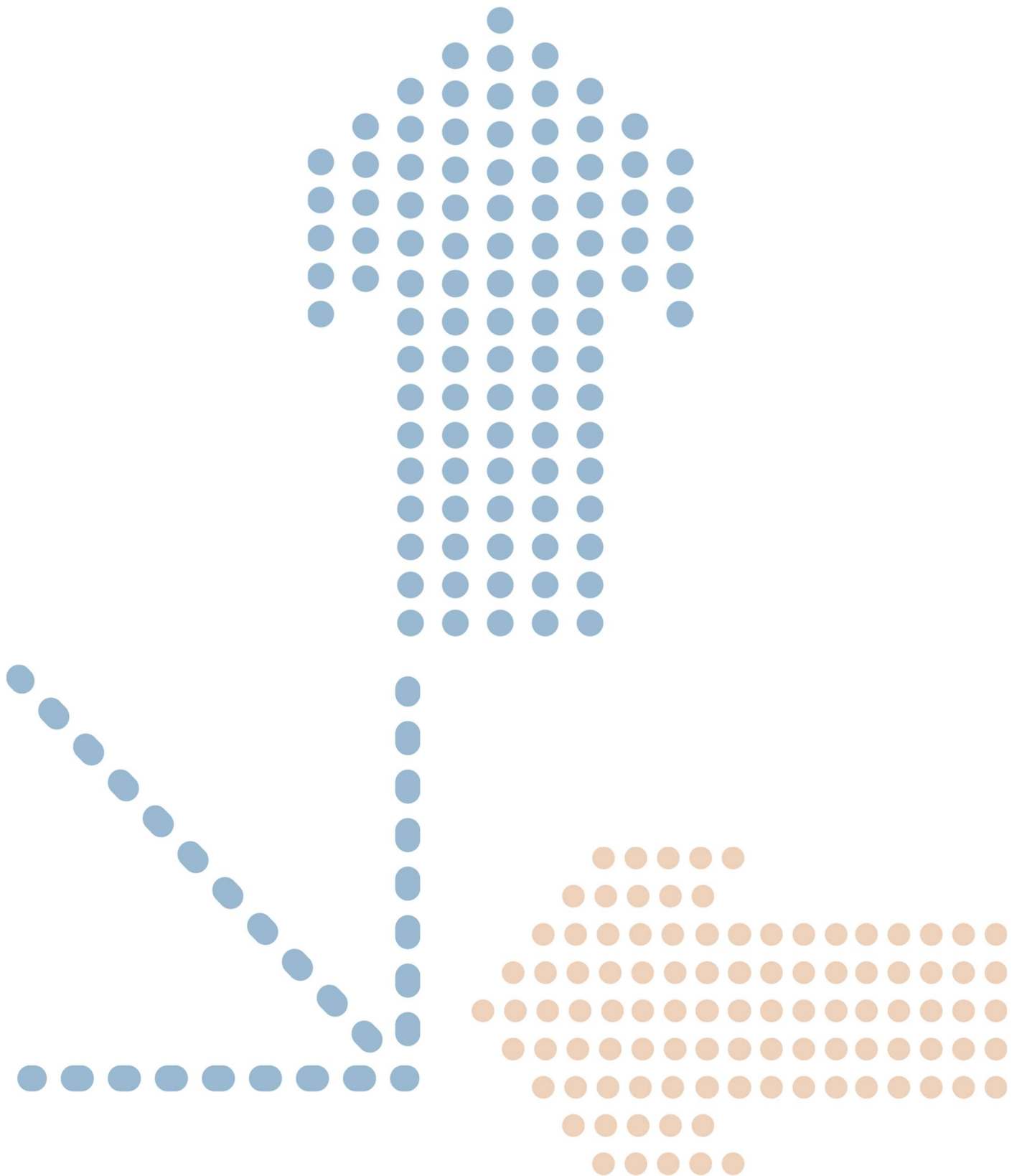
The KPIs are managed on a dedicated application system (BPC) that uses the same platform used for financial reporting and control.

This document was approved by the Board of Directors of TIM S.p.A. on 21 February 2019.

PricewaterhouseCoopers S.p.A., the independent auditor of the Group, was tasked with performing a limited examination (“limited assurance engagement”) of the Sustainability Report/Consolidated Non-Financial Statement; its Report is available on page 176 of this Report.

Sustainability in TIM: the main stages from 1997 to today.





THE TIM GROUP

Organisational 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 (Telecom Italia), joint-stock company organised under the laws of the Republic of Italy¹, [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 2018. During the last three year period, the main changes include the creation of INWIT S.p.A. (2015), listed on the Milan stock exchange, operating in the electronic communication infrastructures sector.

[GRI 102-4] [GRI 102-6] [GRI 102-7] The Group's activities are encompassed in the following Business Units²:

- 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. In addition to the management of the digital multiplexes through Persidera S.p.A., the Business Unit also includes the activities of INWIT S.p.A. and on an international note, the activities related to the development of fibre optic networks (Sparkle) in Europe, the Mediterranean and South America;
- the "Brazil" Business Unit (TIM Brasil Group) provides mobile and fixed telecommunications and transmission services in Brazil;
- the "Other Activities" include the financial companies and other minor companies not strictly connected with 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.
- **Kena 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 services³.
- **Sparkle** offers international voice, data and Internet solutions to fixed and mobile telecommunications operators, ISPs/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.
- **Persidera** offers terrestrial digital transmission capacity and high quality technological solutions to leading TV networks operating in the domestic market.

The Group is particularly attentive to the needs of the community in which it operates and implements wide-ranging initiatives and projects aimed at the social and economic development of the areas in which the Group 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

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

² [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.

³ Offers only basic services.

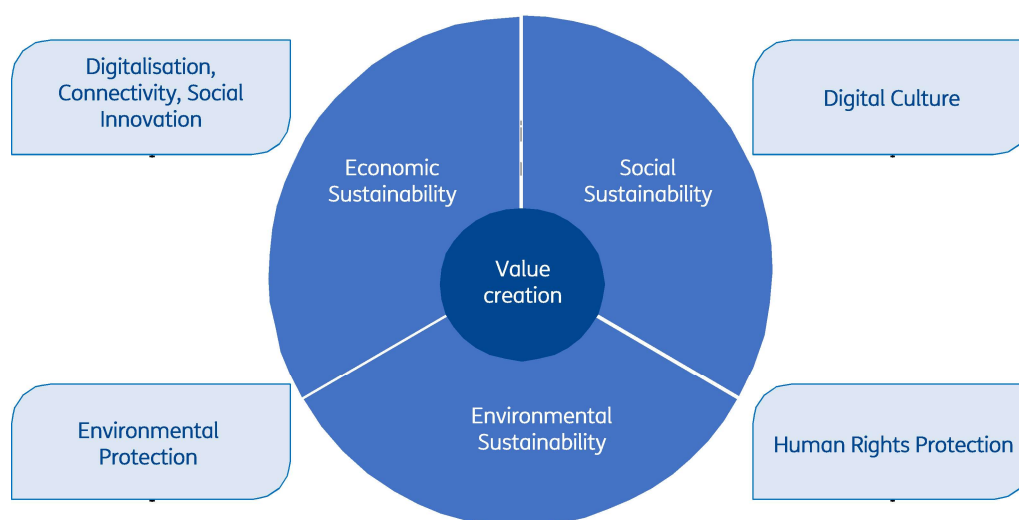
- health: predictive and personalised medicine

We are entering the “Gigabit Society”, characterised by increasingly numerous and complex services that represent an opportunity for growth for the TLC industry, which already contributes over 90 billion euros to Italian GDP, including through direct and indirect effects and productivity.

TIM is the main protagonist in the evolutionary process of the country towards a digital economy. Huge investment over the last few years (which have led to an FTTC fixed ultrabroadband coverage of about 80% while the mobile LTE coverage is higher than 98%) and that planned for the coming years, in their infrastructure management and innovation (both fixed and mobile) are a clear indicator of this.

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.

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



Main Shareholders of TELECOM ITALIA S.P.A.

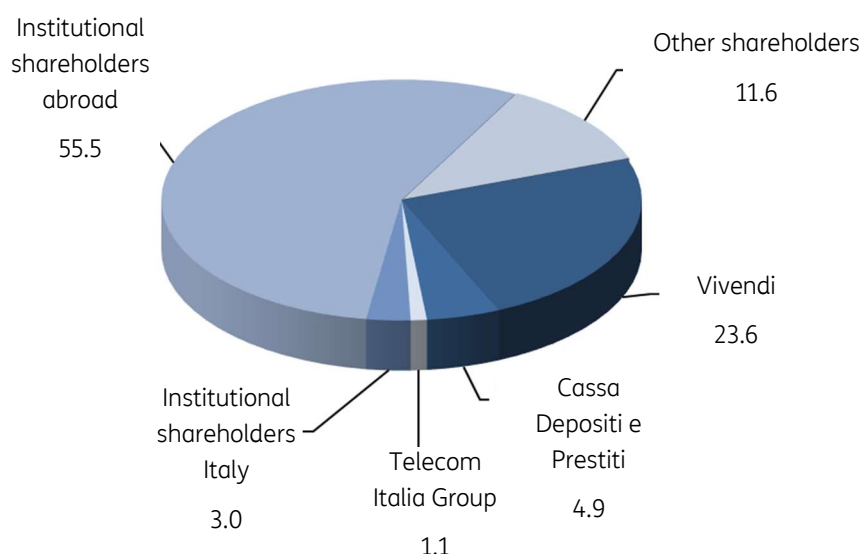
[GRI 102-5] As at 31 December 2018, the reference shareholder is the French Vivendi S.A., with 23.9% of the ordinary share capital. [GRI 102-10] In 2018, the shareholding recorded the entry of Paul Elliot Singer (General Partner of Elliott Capital Advisors LP) who acquired an indirect stake in TIM, held through the subsidiary companies Elliott International LP, Elliott Associates LP and the Liverpool Limited Partnership, equal to 8.9%.

In April 2018 Cassa Depositi e Prestiti entered the shareholding structure of TIM and, at the shareholders’ meeting of 4 May 2018, it participated with shares equal to 4.9% 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 2016-2018, Vivendi S.A. increased its share (+2.6 pp), foreign institutional shareholders, including the amounts referable to Paul Elliott Singer, decreased (-1.1 pp), as well as Italian institutional shareholders (-1.7 pp) and other shareholders (-4.5 pp). Shares held by the Group remained unchanged (the 0.1 pp decrease is attributable to the increase in the ordinary share capital).

Composition, as a percentage, of the share ownership as at 31 December 2018



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 capitalisation 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)	31/12/2018	31/12/2017	31/12/2016
DOMESTIC FIXED			
Physical connections	18,212	18,995	18,963
Broadband connections	11,184	10,154	9,206
DOMESTIC MOBILE			
Number of lines	31,818	30,755	29,617
BRAZIL			
Number of lines	55,923	58,634	63,418

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 capital¹. [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 Bylaws 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.

TIM's Bylaws also 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 CLF² and the Corporate Governance Code of Borsa Italiana, to which TIM adheres.

[GRI 102-22] The Board of Directors in office as of May 4, 2018 consists of 15 members, including 12 independents. 6 of the Board members are women and the female gender is the only social subgroup represented. On the company's website (telecomitalia.com) under the heading Corporate Bodies/Board of Directors/Composition each director's role, nationality, appointment date, list of presentation, independence status and membership on the Board of Directors are shown; their relative curricula vitae are also available. 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] 21 meetings of the Board of Directors were held in 2018.

[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. Training sessions on sustainability are also planned for 2019.

[GRI 102-18] [GRI 102-24] 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. The process of selecting and appointing members of each Committee, and the independence and competence requirements, are available on the telecomitalia.com website.



¹ or any other amount that may be required by the regulations issued by Consob.

² Consolidated Law on Finance.

[GRI 102-28] For the 2018 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 2018 self-assessment.

[GRI 102-19] [GRI 102-20] [GRI 102-23] [GRI 102-26] In the meeting on 7 May 2018, the Board of Directors appointed the Director Fulvio Conti and confirmed Amos Genish in the respective offices of Chairman and Chief Executive Officer/General Manager of TIM S.p.A.. On 13 November 2018, the Board of Directors revoked the powers assigned to the CEO/GM Genish, assigning all powers temporarily to the Chairman Conti.

Subsequently, the Board of Directors of 18 November 2018 appointed Luigi Gubitosi¹ as Chief Executive Officer and General Manager of the Company.

In addition to the powers granted by law, [GRI 102-32] the Chairman is granted the governance of Fondazione TIM.

[GRI 102-19] [GRI 102-20] [GRI 102-26] 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 organisational responsibilities to ensure the management and development of the business in Italy and South America in addition [GRI 102-32] to the responsibility for sustainability activities, including the preparation of the Sustainability Report/Consolidated Non-Financial Statement.

[GRI 102-19] [GRI 102-20] The system by which the executive director (currently only the CEO) delegates powers to the departments that report to him is the subject of a specific company procedure that establishes the methods by which this system must be implemented (Granting and Revocation of Powers). The delegated powers, in particular on matters of an economic-financial nature, are normally granted to those directly reporting to the CEO who deal with these matters, while 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. Those reporting directly can in turn assign specific powers to specific departments; [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 transactions with related parties², drawn up in compliance with Consob Regulation No. 17221 of 12 March 2010, is systematically updated (last revision 24 July 2018) and is available on the company's website (<https://www.telecomitalia.com/tit/it/about-us/governance-system/bylaws.html>) and outlined in the Report on Corporate Governance (Directors' interests and transactions with related parties). 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.

In relation to the provisions issued on 16 October 2017 and 2 November 2017 by the Presidency of the Council of Ministers on the basis of the preliminary investigation concerning the exercise of powers deriving from the use of the Golden Power is confirmed, in continuity with that reported last year, implemented by the Company with a procedure issued in January 2018. 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 organisational 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.

¹ Mr Gubitosi does not hold directorships in companies in which the remaining Directors of TIM hold the position of Chief Executive Officers.

² "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 Corporate Governance.

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 "Organisational Model 231", i.e. an organisational and management model adopted pursuant to Legislative Decree 231/2001, aimed at preventing offences that may result in liability for the company.

[GRI 102-33] [GRI 102-34] [GRI 102-17] In November 2015, TIM implemented the new Whistleblowing¹ procedure, which provides for the centralised 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 2018, the Whistleblowing procedure resulted in 160 reports made in Italy and 1,009 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;

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

- 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).

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. Following the renewal of the Board of Directors, the Committee availed itself of the assistance and support offered by Egon Zehnder for 2018, having first ascertained that it was not in a position to compromise the 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. In particular, the objectives assigned to the Chairman and CEO for 2019 are mainly of an economic and financial nature, with the exception of the Customer Satisfaction indicator.

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 and management 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 Administration, Finance and Control reports directly to the Chief Executive Officer for 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 2018, the Board of Directors met the parties responsible for sustainability activities once.

[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 and oversees the implementation of particular projects. 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 dialogue 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 programmes, the Group is inspired by the guidelines issued by the main global guidance and standardisation organisations 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 organisations of all sizes.

[GRI 102-12] [GRI 102-13] TIM has long been a member of many environmental and social organisations, both national and international, formed to disseminate universally recognised values including respect for Human Rights, employment rights and environmental protection. The main associations in which the Group is involved 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 standardisation organisation for telecommunications;
- GSM Association, and in particular the GSMA working group – Mobile Alliance against Child Sexual Abuse;
- Alliance to better protect children online, platform launched by the European Commission as part of the Better Internet for Kids ("BIK") strategy;
- 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 dialogue with Institutions;
- 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 and Contract, which govern relations with subscribers and are additional to the Service Charters, are published on the tim.it, impresasemplice.it and nuvolaitaliana.it websites. 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 centre services for customer support) are published on the relative websites. A selection of the objectives and their respective levels of achievement is set out in the Appendix to this report.

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).

The other commitments of the Group 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: Management Approach] [GRI 205] The correctness of corporate conduct, and in particular the fight against corruption, is a material topic for any company and even more so for a Group that operates as a “system company,” integrated with the region and with its social, economic and productive context, with a pervasive role for the entire Italian and Brazilian economy and for the competitiveness of their companies, the efficiency of their local government bodies and, more generally, the welfare of their citizens. Corruption is widely recognised as one of the factors threatening socio-economic growth and the well-being of the population.

The tool for identifying, preventing and controlling corruption risks is “Organisational Model 231” (including the Code of Ethics) approved by the Board of Directors in 2003 and subsequently updated - last update in July 2018. The Group adopted the Anti-Corruption Policy¹ in 2012, which was subsequently updated (September 2016).

[GRI 205-1a] Organisational Model 231 currently covers all Business Units of the Group.

TIM's Compliance Department, which reports to the Board of Directors, provides operational support to the Supervisory Bodies (SB), performing specific compliance interventions also based on the evidence received via the information flows established within the Group, achieved by examining reports for which the 231 SB is responsible, forwarded by the Audit Department following a preliminary analysis and/or the conclusion of the communication process stipulated by the whistleblowing procedure.

[GRI 103-2: Management Approach] [GRI 205] Organisational Model 231² identifies the processes that are at risk of corruption offences, including: management of relations with public entities, negotiation with customers, identification and management of counterparts in commercial relations, partnerships, joint ventures, participation in associations, purchase of shareholdings, purchase of goods and services, consulting and professional services, selection, recruitment and employment of personnel.

[GRI 205-1b] The areas identified as being at risk of corruption are:

- gifts and entertainment expenses
- events and sponsorships
- donations/membership fees/contributions to non-profit organisations
- consulting, intermediation, relations with business partners and suppliers
- joint ventures, acquisitions and transfers

and furthermore:

- sale of goods and services
- relations with Institutions/Authorities
- authorisations and concessions
- subsidised financing
- legal and arbitration proceedings
- health and safety at work obligations
- environmental protection obligations
- selection, recruitment and employment of personnel

¹ available at the link

http://www.telecomitalia.com/content/dam/telecomitalia/documents/Governance/it/codici_principi_procedure/Policy_anticorruzione_ITA_sett_2016.pdf

² Organisational Model 231 is available at the following link: <http://www.telecomitalia.com/tit/it/about-us/governance-system/231-organizational-model.html>

- operations carried out by the Executive Directors

The above areas are the criteria by which processes or activities are judged to be at risk or not (each process/activity is at risk if it includes these areas).

The project for the adoption of Standard 37001¹, which defines the “Anti-Corruption Management System” within TIM S.p.A., was approved by the Control and Risk Committee on November 2017. During the course of 2018, the assessment phase of the processes/activities relevant at company level was carried out, to identify any gaps with respect to the adoption of the provisions of the standard for subsequent certification.

In Brazil, in relation to TIM Participações, the Company adopted the foreign version of the Organisational Model in accordance with the local anti-corruption law (Ley 12.846/13) and the relevant provisions required at Group level. In this area, a new version of the Código De Ética e De Conduta e della Política Anticorrupção was adopted in September 2018.

[GRI 103-3: Management Approach] [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 policy (MBO) assigns the Head of Department objectives in keeping with the prevention of crimes under Legislative Decree 231/2001, in compliance with the relevant regulations.

TIM provides everyone (employees, co-workers, consultants, customers, third parties in general) with a single channel through which to submit reports, with the maximum guarantee of confidentiality.

[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 organised 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: Management Approach] [GRI 205] In terms of external recognition, TIM came fourth place in the TRAC (Transparency in Reporting on Anti-Corruption) Telecom Report 2015, in relation to the adoption of an anti-corruption programme; the assessment was made at a global level by the organisation Transparency International and involved 35 telecommunications companies. At the end of 2018, TIM participated in the survey conducted by Transparency International of major Italian companies in the private sector to map anti-corruption commitment, after which a transparency index (Business Index on Transparency-BIT) was developed.

¹ The ISO 37001 *Anti-bribery management systems* standard identifies a management standard to help organisations in the fight against corruption that is based on international *best practice*. It is certified by an accredited body and can be integrated with other management systems, as it can also become a part of the Organisational Model 231. The standard can provide important assistance in implementing effective measures to prevent and tackle corruption.

[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 programmes and the dissemination of tools to support integrity, transparency and anti-corruption.

[GRI 103-2: Management Approach] [GRI 205] In the case of Italian companies, 231 Organisational Model and the anti-corruption policy are communicated to all employees while commercial partners are required to confirm their adherence to the principles contained therein. Note also that the on-boarding training provided to new recruits at TIM S.p.A. included specific anti-corruption sessions.

Employees are trained every time the Organisational Model undergoes substantial changes. TIM has additionally made the e-learning training modules on Organisational Model 231 and anti-corruption aspects available to Company bodies of all national subsidiaries.

In the years 2017 and 2016 courses on Market Abuse and Anti-Corruption Policy were provided for a high number of employees, as illustrated in the tables below. As previously explained, training campaigns do not necessarily take place on an annual basis; rather the frequency depends on new changes to the Model or as a result of other organisational needs.

In TIM in 2018, classroom courses were provided on the new version of the Organisational 231 Model and on ISO 37001, addressing department focal points and managers; in particular, managerial training on the new version of the Organisational 231 Model involved 45 members of staff, training for 231 and ISO 37001 involved 33 staff members and training relating to only 231, 66 staff members. For 2019, courses are scheduled with a focus on the new anti-corruption legislation under Law No. 3 of 9 January 2019 and on ISO 37001.

[GRI 205-2] Training campaigns

TIM S.p.A.	2018	2017	2016
Senior Managers	2	344	211
Middle Managers	25	2,723	420
Others	202	29,544	577
Total	229	32,611	1,208

Unit of measurement: number of people. The amounts in the table relate to the three-year period 2016-2018; the amounts reported for the year 2017 in the 2017 PDF were calculated on a different time period.

[GRI 205-2] In Brazil, communication on anti-corruption matters, with employees and partners, was launched in 2014 and new classroom and online training activities were delivered starting in 2015.

In particular, on 18/02/2019, the online course for the Anti-Corruption Compliance Program (Organisational Model) was taken by 95% of employees; the same percentage for the Code of Ethics online course.

Legal framework and compliance

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 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 Group's main disputes in this respect are listed and described in the "Contingent liabilities, other information, commitments and guarantees" Note of the Consolidated Financial Statements, particularly in the "Significant disputes and pending legal actions section". [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, namely the parties who for various reasons have an interest in the Company's activities.

[GRI 102-40] The stakeholders with whom TIM comes into contact in the conduct of its business are many and very varied. For ease of management they have been grouped into eight categories, the first six of which relate to the outside world and the remaining two relate to the internal world of the Company:

- customers
- suppliers
- competitors
- institutions
- environment
- community (including associations, universities and research centres, the education world, media, start-ups)
- shareholders
- human resources

[GRI 102-42] [GRI 102-43] The stakeholder engagement process takes place regularly during implementation of corporate projects and activities involving listening to customers. More specifically, for customers, general satisfaction is measured (Customer Satisfaction Index), as are the conciliation procedures, as better described in the Value Chain section of this report.

For each project, the affected stakeholders are identified and priorities are assigned based on the importance of the stakeholder for the business objectives or on the basis of the Company's decision to focus on specific fields such as, for example, contributing to the economic or cultural growth of the Country with projects not strictly connected with business.

Once the relevant stakeholders have been identified for the project, 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 organisations, guidelines for voluntary contributions to the Community.

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 2018 the Company organised 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 2018 Annual Financial Report and the dedicated area of the website www.telecomitalia.com.

The "TI Alw@ys ON" Shareholders' Club (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 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 2018 are summarised 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 2018, TIM updated and examined the external perception of the importance of material topics by consulting groups of its stakeholders through various digital tools: customers on a dedicated section of the corporate website, a significant proportion of suppliers on the procurement portal and a selection of authoritative stakeholder representatives on the RE2N collaborative platform. Of the latter, 59 people representing institutions, suppliers, customers, competitors, the environment and the community responded to an interview, providing their views of the most relevant topics to TIM's strategy.

This latter initiative is part of the new methods TIM has adopted for the materiality analysis (described in the dedicated paragraph in this chapter) to exploit the potential of digital, also as part of the sustainability activities.

TIM intends to develop stakeholder engagement and collaboration initiatives on the same platform in 2019 with the twofold aim of making the exchange and engagement of stakeholders more fluid and continuous, and at the same time organising initiatives undertaken with them and fostering, in "real time", the process of updating the materiality analysis with the results of the exchange that occurs on the platform.

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 2018, 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 continuity with the methodology put in place in 2017, TIM checked the validity of the material themes identified last year, adopting advanced semantic analysis¹ techniques to analyse a greater number of information sources relating to a scenario that is broader than its own sector. 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 RE2N², a company that develops innovative tools for sustainability and shared value, using computational approaches to semantic³ and big data analysis.

The taxonomy⁴ 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 assessments⁵ ;
- Italian Digital Agenda, Objectives of the European Digital Single Market and dedicated indexes,⁶ besides regulatory references which are relevant for TIM and its stakeholders.

This activity allowed some of the issues identified in 2017 to be named and described in a more specific and precise way and led to the emergence of new ones.

The documents linked to the Group’s core business were subsequently identified and collected for analysis, selecting national and international, public and non-public sources, internal and external to TIM⁷.

The semantic engine analysed all the sources of information with different interactions. This process led to the definition of a list of themes based on the occurrences⁸ found in the various documents and the logical correlations between them. The more a theme, a concept, reoccurs in the analysed 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:

- correctness of corporate conduct
- stakeholder engagement
- integrating economic, social and environmental aspects in governance and the strategic plan
- supporting the development of digital skills in the community (in schools, in the public administration, in businesses)
- developing the resilience of areas to disasters and calamities
- consolidating social and environmental aspects in the supply chain
- managing the workforce and employment development
- managing the health and safety of workers

¹The 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 analysed all the sources of information were trained with “sustainability” and “digital” components.

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

³ Computational approach to semantic analysis refers to the process where different representations of sentence meaning are composed and then placed in correspondence with the various linguistic elements.

⁴ 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.

⁵ For example RobecoSam (Dow Jones Sustainability Index), FTSE4good and Sustainalytics questionnaires.

⁶ For example, the Digital Economy Society Index which monitors different aspects of the digitisation level of the individual European countries.

⁷ For example: The “Piano Nazionale italiano per l’Agenda 2030” (Italian National Plan for the 2030 agenda) of the Italian government, the “Ernst & Young Megatrends report 2018”, the “Fair and Sustainable Well-Being in Italy 2017” (BES) report promoted by the National Council for Economy and Labour (CNEL) and the National Institute for Statistics (ISTAT).

⁸ 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.

- developing personnel competencies
- service quality
- online protection of minors (cyber bullying, child pornography, gambling)
- safeguarding privacy and personal data protection and security
- contributing to and taking initiatives to fight climate change in company policies, strategies and processes
- reducing the environmental impact of TIM's operations
- increasing the use of energy from renewable sources in company processes
- electromagnetism
- digital inclusion in society
- developing digital infrastructures with next-generation networks
- promoting and safeguarding human rights
- reducing inequalities and promoting equal opportunities in the Company

Attribution of relevance scores to the topics

The list was then used in the process of defining the importance of themes for TIM and for stakeholders. 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 strategy¹.

Collecting external points of view was done with innovative tools such as semantic and big data analysis², and the use of "digital collaboration" tools³.

This approach has enabled TIM to:

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

At the end of the analysis, TIM attributed a relevance score based on the occurrence of the topics⁴.

The activity resulted in the materiality matrix shown on the following page.

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

² 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.

³ Digital instruments were used for engagement. In particular:

- on the collaborative platform, through a questionnaire stakeholders were asked about categories of customers, suppliers, competitors, institutions, the environment, the community and people; also collecting suggestions and feedback;
- TIM's vendor assessment platform was used to specifically focus on the category of suppliers;
- information on TIM customers' views on the proposed issues was obtained from the TIM.com site.

⁴ 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.



These themes, priorities for TIM and for their stakeholders, reflect the Sustainable Development Goals¹ 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. 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) department of Administration & Financial Statements and Sustainability Reporting department, with the support of RE2N and TIM Data Room. TIM Data Room² is the department of TIM Group that analyses 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 30 November 2018.

¹ un.org/sustainabledevelopment/ and asvis.it/agenda-2030/

² impresasemplice.it/cloud-it/big-data/tim-data-room

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, the Group has revised the “Guidelines for updating the TIM materiality analysis” so that they comply with the GRI Standards and are organised 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
- integrating economic, social and environmental aspects in governance and the strategic plan
- consolidating social and environmental aspects in the supply chain
- managing the workforce and employment development
- managing the health and safety of workers
- developing personnel competencies
- service quality
- reducing the environmental impact of TIM’s operations
- promoting and safeguarding human rights
- reducing inequalities and promoting equal opportunities in the Company

Other themes are mainly relevant to Group companies acting as operators in the ICT world, which represent the main part of the Group in terms of turnover, employees, even in terms of the impact on external stakeholders:

- supporting the development of digital skills in the community (in schools, in the public administration, in businesses)
- online protection of minors (cyber bullying, child pornography, gambling)
- safeguarding privacy and personal data protection and security
- developing digital infrastructures with next-generation networks

The themes 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 expectations. In Brazil, where the Group is present as one of the Country’s biggest mobile operators, the topics are definitely relevant to stakeholders but to a lesser extent than in Italy.

[GRI 102-49] Finally, no significant changes have been recorded in the scope of activities (and therefore boundary relevant) in recent 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 to the link <http://www.telecomitalia.com/tit/en/sustainability.html>

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

REDUCING THE ENVIRONMENTAL IMPACT OF TIM'S OPERATIONS

Risks	Management
Risks associated both with the simplification of the network application and architecture and overcoming the architectural limits necessary to implement a complete Digital Transformation.	TIM manages 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: <ul style="list-style-type: none"> - updating the structure of IT systems and networks to adapt them to new technologies with the help of criteria aimed at minimising the environmental impact based on the Group environmental policy that provides a general guideline for the responsible and sustainable protection of the environment; - dismantling obsolete systems and platforms, progressively reducing the associated energy consumption; - developing innovative ICT solutions and services that allow increased use of digital channels, allowing all stakeholders to interact more efficiently, minimising the environmental impact.
<i>In Brazil</i> Risks related to the theme of sustainable development and the generation of positive environmental and social impact.	TIM Participações engages in sustainable development by participating in various initiatives and carrying out "educational" and technological projects through the Instituto TIM.

CORRECTNESS OF CORPORATE CONDUCT

Risks	Management
<p>Compliance risks in relation to the reference legislation (Legislative decree 231/2001), current asymmetric and transparency regulation (Italian Communications Authority), legislation in force on competition and consumer protection (Italian Competition and Market Authority) and implementation of the provisions established by CONSOB regarding transactions with related parties.</p> <p><i>In Brazil</i></p> <p>Risks related to the breach of existing legislation in the field of international and national corruption, breach of regulations and/or internal policies relating to transactions with related parties, the lack of monitoring of regulatory obligations and conflicts of interest.</p>	<p>TIM oversees its process compliance with the regulations through specific Compliance departments whose autonomy is guaranteed by the hierarchical relationship with the BoD. 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 optimise its offer on the basis of market expectations and in compliance with legislation. In the area of Legislative Decree 231/2001, the company also implemented a specific training plan for employees.</p> <p>TIM Participações makes use of a structured anti-corruption process in order to comply with national legislation. the process involves:</p> <ul style="list-style-type: none"> - presence of a whistleblowing channel - monitoring gifts and donations; - monitoring events, sponsorships, goods and services offered and services free of charge; - monitoring staff costs and relationships with public bodies. <p>The TIM Participações Related Parties process is structured to ensure that transactions are recorded on specific systems and reported to internal commissions. The list of internal Related Parties is constantly updated and available on the intranet and is also updated on instructions from the Parent Company.</p> <p>TIM Participações has defined a regulatory obligations management process with the aim of monitoring all obligations, identifying any areas where it is not in compliance and developing actions to comply with current regulations and manage the external relationship with regulatory agencies.</p> <p>TIM Participações has defined the policies and processes to identify and manage conflict of interest cases.</p> <p>An assessment is performed periodically to verify compliance with company policies.</p>

STAKEHOLDER ENGAGEMENT

Risks	Management
Risks related to 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>TIM oversees relationships with the various stakeholders through dedicated departments that work through various initiatives and projects. From a strategic point of view, targeted scouting activities are carried out with partners for the development of commercial services including related management and monitoring.</p> <p>The Company also oversees the process management of external and internal disputes, safeguarding the rights of workers, including the right to privacy.</p>

INTEGRATING ECONOMIC, SOCIAL AND ENVIRONMENTAL ASPECTS IN GOVERNANCE AND THE STRATEGIC PLAN

Risks	Management
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 (CSR).	<p>TIM has internal policies and procedures that integrate sustainability issues into company processes; the Corporate Digital Communication & CSV Projects department oversees the implementation of projects dedicated to the generation of shared value, in addition the Sustainable Reporting, Monitoring & Relationship departments oversees the relevant legislation and monitors the progress of sustainability issues, reporting to the Control and Risk Committee, which has a high degree of supervision on CSR issues, and to the Chief Executive Officer for the Sustainability Report.</p>

MANAGING THE WORKFORCE AND EMPLOYMENT DEVELOPMENT

Risks	Management
<p>Risk related to the failure to implement/incorrect interpretation of legislation on workers' rights (safeguarding of workers' rights, including the right to privacy; job security) and the skills adjustment necessary to ensure business transformation.</p>	<p>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. TIM optimises 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. 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 staff skill sets.</p>

MANAGING THE HEALTH AND SAFETY OF WORKERS

Risks	Management
<p>Risk related to the failure to implement/incorrect interpretation of legislation on health & safety at work and to implement the provisions of company policies in the "Safety" area.</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 management roles as well as regulations and provisions aimed at all personnel.</p> <p>The Company has criteria and tools for identifying and managing the various operational safety issues.</p> <p>The overall structure of the control system adopted for the protection of health and safety in the workplace and for the protection of the environment provides for first level controls within the company departments, with the second level controls performed by the Compliance and Compliance departments. Specific controls are carried out by the Health, Safety & Environment department in the field of Prevention and Business Protection.</p>

DEVELOPING PERSONNEL COMPETENCIES

Risks	Management
Risks related to the skills adjustment necessary to ensure business transformation.	TIM optimises 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. 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 staff skill sets.

QUALITY OF SERVICE

Risks	Management
Risks related to the service quality delivered/perceived to customers and the operation of Customer Care.	<p>TIM monitors the perceived quality level through a complex survey system achieved with the support of leading research institutes and through the use of IT systems and analysis platforms.</p> <p>TIM promotes the dissemination of a culture geared towards customer experience and periodically shares the main guidelines for the caring model which define the reception and service model to be provided to customers. TIM has set up specialist groups with the aim of improving customer experience and commercial approach at the same time.</p>
<i>In Brazil</i>	TIM Participações controls the quality level by means of operative performance indicators established by the Agência Nacional de Telecomunicações (ANATEL), which envisage objectives linked to quality and standards that must be respected by suppliers. In addition, TIM Participações has internal indicators with the objective of monitoring gap mapping and implementing mitigation plans.

SAFEGUARDING PRIVACY AND PERSONAL DATA PROTECTION

Risks	Management
<p>IT risks and risks related to the application of the current legislation on privacy.</p>	<p>TIM 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.</p> <p>The ICT Risk Management process contributes to the security of information by managing the process of assessing and handling the operational risks to ICT resources who handle information 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 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 particular reference to the new privacy regulation GDPR No. 2016/679, the 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 organisational structure and processes, completing the revision of company procedures and training programme of the staff.</p> <p><i>In Brazil</i> TIM Participações has adopted a procedure defining the security measures relative to IT systems and an advanced platform against computer attacks. TIM Participações monitors incidents related to computer attacks and malfunctions in data protection and notifies the parties concerned.</p> <p>TIM Participações has structured a process that establishes guidelines for the security of its customers' data, where such is defined as confidential by Brazilian law. There are system control mechanisms in place, which prevent access by unauthorised staff and the dissemination of sensitive data.</p>

DEVELOPING DIGITAL INFRASTRUCTURES WITH NEXT-GENERATION NETWORKS

Risks	Management
<p>Risks connected to overcoming the architectural limits necessary to implement a complete digital transformation and to the engineering and/or implementation of infrastructures for innovative solutions.</p>	<p>TIM manages 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"> - updating the structure of IT systems and networks to adapt them to new technologies with the help of criteria aimed at minimising the environmental impact based on the Group environmental policy that provides a general guideline for the responsible and sustainable protection of the environment; - dismantling obsolete systems and platforms, progressively reducing the associated energy consumption; - developing innovative ICT solutions and services that allow increased use of digital channels, allowing all stakeholders to interact more efficiently, minimising the environmental impact. <p>TIM's technical departments monitor the technological processes of the Company in the general context of the engineering and planning of network/service infrastructure, the development of new generation networks (FTTx - 5G) and evolution towards the cloud network, while the commercial departments contribute to the development of innovative services through the structuring of ad hoc offers.</p>

REDUCING INEQUALITIES AND PROMOTING 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>

SUPPORTING THE DEVELOPMENT OF DIGITAL SKILLS IN THE COMMUNITY (IN SCHOOLS, IN THE PUBLIC ADMINISTRATION, IN BUSINESSES)

Risks	Management
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.	TIM has internal policies and procedures that integrate sustainability issues into company processes; the Corporate Digital Communication & CSV Projects department oversees the implementation of projects dedicated to the generation of shared value, in addition the Sustainable Reporting, Monitoring & Relationship departments oversees the relevant legislation and monitors the progress of sustainability issues.
<i>In Brazil</i> Risks related to the theme of sustainable development and the generation of positive environmental and social impact for companies and stakeholders.	TIM Participações engages in sustainable development by participating in various initiatives and carrying out “educational” and technological projects through the Instituto TIM.

CONSOLIDATING SOCIAL AND ENVIRONMENTAL ASPECTS IN THE SUPPLY CHAIN

Risks	Management
Risks related to the selection and qualification of suppliers/partners and products and to the management of passive contracts (agreement, archiving and monitoring)	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 the 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.

ONLINE PROTECTION OF MINORS (CYBER BULLYING, CHILD PORNOGRAPHY, GAMBLING)

Risks	Management
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 reputational risks.	<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.</p> <p>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 Centre in collaboration with the involved internal departments and with the competent external authorities.</p>

PROMOTING AND SAFEGUARDING HUMAN RIGHTS

Risks	Management
Risks of compliance with the relevant legislation (Legislative decree 231/2001).	The Group makes grievance mechanisms available to be used in the event of Economic risks, reputational violation, as expressly required by the Guiding Principles on Business and Human Rights. These mechanisms are available on the Group’s websites.

ENVIRONMENT

Environmental protection approach

[GRI 103-1, 103-3: Management Approach] [GRI 302] [GRI 305] The ICT sector can pursue the aim of containing its CO₂ emissions while contributing to the reduction of emissions from other sectors and citizens thanks to the nature of its characteristic solutions: video conferencing, teleworking, telemedicine and the entire range of services which digitisation brings, resulting in sustainable behaviour and lifestyles. It¹ has been calculated that adopting these services could lead to a 20% reduction in global emissions of CO₂ in 2030, holding them at 2015 levels.

TIM is aware of its leading role in building a low carbon emissions future and is part of, and active in, industry associations and non-profit organisations which have environmental protection among their objectives²; it is clear that environmental issues have been of importance to TIM for some time, evident from the materiality matrix of 2018 incorporating the Sustainable Development Goals and defining the areas of intervention for TIM's strategy for the environment:

- definition of management approaches that allow optimised use of energy sources and other natural resources;
- development of solutions and products that contribute to the fight against climate change;
- adopting procurement policies that take environmental issues into account;
- disseminating a culture among employees and stakeholders that promotes a correct approach to environmental issues.

In line with the points above, the Group reduces the need for staff to travel by using its audio and video conference services as an alternative. In addition, in order to increase awareness of environmental protection, a training plan was introduced for internal staff and business partners with 9,508 total hours of training and around 3,900 people taking part. It also launched the fourth "Green Survey" distributed via the company Intranet, to bring the issues of energy saving, the environment and sustainability to the attention of TIM's staff. The survey results are published on the home page of the TIM Intranet.

Furthermore, TIM has adopted criteria, which are consistent with service requirements and costs of the various solutions, to minimise the impact of its activities and infrastructure by defining fixed and mobile network architecture and technical specifications for equipment and components.

In 2018, TIM internally formalised its commitment to the issue by drafting a specific Group Policy on the Environment ("*TIM Group commitments to environmental sustainability*") approved in December 2018. In some specific Group areas (Technology department and Open Access department), quality and environmental policies have been in force for some years with the most recent versions issued in July 2017. Furthermore, TIM Sparkle has a quality, health and safety in the workplace and environment policy in force, which was updated in July 2017.

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 organisations, 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. In 2018, certification was extended considerably: besides the "historic" site in Bologna, in via Stendhal and the Data Center in Rozzano 1 and 2, certification was also obtained for Rozzano 3 - thus completing the entire Data Center - and for the exchange in the center of Piacenza, as well as the Data Processing Centers at Padova and Bologna Roveri. TIM therefore achieved the objective it had set the previous year to add a telephone exchange to the certification on top of the already certified buildings. Moreover, TIM has always been committed to monitoring the performance of its Data Centres: The Rozzano 2 Data Centre obtained PUE certification in 2014 while the PUE of the other Data Centres is currently undergoing certification.

¹ Global e-Sustainability Initiative, #SMARTer2030 – ICT Solutions for 21st Century Challenges.

² CDP (formerly the Carbon Disclosure Project), European Telecommunications Network Operators' Association (ETNO), European Telecommunications Standards Institute (ETSI), Global e-Sustainability Initiative (GeSI), International Telecommunication Union (ITU).

The 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 2015, which underlines its commitment to reducing waste and using natural resources sustainably.

[GRI 103-2: Management Approach] [GRI 302] [GRI 305] The Company undertakes to implement energy efficiency programmes and a rational use of resources: the *Energy & Utilities Management* department operates within the *Procurement & Real Estate* department, focusing on energy issues with the mandate to identify and finalise 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 medium-term variable remuneration policy (MBO) requires that department managers be assigned a Transformation Project target, consistent with the Group's business plan and including environmental protection issues. As a testimony to its commitment on the energy front, TIM received the 2018 Energy Manager award for the tertiary sector from FIRE¹ in collaboration with ENEA and Key Energy.

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 2018, TIM Participações used 180 GWh from renewable energy sources, accounting for about 26% of TIM's consumption. In 2019, the forecast shows the energy share from renewable sources will increase to 57% of the Company's total consumption.

[GRI 103-3: Management Approach] [GRI 302] [GRI 305] The performance of the main Group indicators is shown in the table below. For more details, see the appendix.

Indicators	Final figures 2018
Total consumption of electricity procured and produced	😊 Down
Total CO ₂ emissions	😊 Down
Eco-efficiency indicator	😊 Up
% of waste recycled	😊 Constant

¹ Italian Federation for Energy Efficiency.

Fight against climate change: risks and opportunities for TIM

[GRI 201-2] The ICT sector is required to contribute to the fight against climate change by promoting digitisation and virtualisation to save energy.

TIM believes that its telecommunications services are an **opportunity** for climate change mitigation: in addition to optimising production processes and logistics flows in various sectors, they help customers reduce emissions generated by physical travel. In particular:

- the services of **audio/video conferencing** 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;
- the **infomobility** solutions allow traffic flows and travel times to be optimised and therefore lower greenhouse gas emissions;
- systems for **the monitoring and analysis of consumption** allow the optimisation of the energy efficiency of offices and houses.

TIM is taking up the fight against climate change by setting itself some priority objectives:

- reducing its own direct and indirect emissions of greenhouse gases;
- limiting the emissions of other sectors and customers in general by supporting dematerialisation and the provision of services and solutions which promote new sustainable ways of working, learning, travelling 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 takes part in the CDP survey both in Italy and Brazil, where, for the eleventh 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.

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 **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 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 characterised 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 crucial for rapid planning of necessary intervention. Finally, 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, 65.2% of domestic electricity comes from hydroelectric generation¹. 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

¹ According to the National Energy Report for Brazil 2018 (BEN, 2018).

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.

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 optimising 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 optimisation 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, maximising the capacity and quality of the service and minimising interference, thus contributing to reducing the power transmitted by mobile terminals and radio base stations. In 2018, the following activities continued:

- support and training for local organisations 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 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.

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 a TIM patent 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: they are therefore not included in the TIM Enterprise Risk Management matrix or in the materiality matrix that brings relevant issues highlighted by stakeholders together. 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 pays careful attention to the issue by proactively monitoring all possible developments and always acting in compliance with the legislation.

In Brazil the non-ionising 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 licence 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 anonymity¹.

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 organisational tools needed to prevent the violation of legal provisions.

During 2018, 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 consideration is also valid for the previous two years.

In Brazil, during 2018 a fine of 500 thousand reais² was imposed on TIM by the Municipal Environmental and Sustainable Development Office of the city of Esplanada (in the state of Bahia) for failing to respect regulations issued by the environmental authority. TIM is appealing to the competent bodies. For the year 2018, there are 23 non-pecuniary administrative sanctions to report; in 2017, there were 15 imposed and 7 in 2016. No cases of conciliation mechanism resolution, a method not envisaged in Brazil for environmental disputes.

¹ Full information about this is available by clicking on this link: www.telecomitalia.com/tit/it/aboutus/governancesystem/whistleblowing.htmls

² 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 112,200 euros at the exchange rate on 31 December 2018.

TIM initiatives for the environment

Listed below are some of the TIM services and initiatives where the company's technology, know-how, structures and awareness are being deployed to limit the environmental impact of activities.

Energy efficiency improvement work

In the course of 2018, TIM proactively managed to avoid energy withdrawal increases linked to technological development through a continuous search for efficiency and optimisation in adopted solutions. In 2018 a total net reduction in consumption (net withdrawals and self-produced energy) was achieved of around 28 GWh compared to 2017.

This result was made possible through new efficiency plans involving several areas and with the implementation of specific efficiency projects launched in previous years, in detail:

- **Spaces Plan.** Provides for the release of 40 sites in the 2018-2020 period, of which 23 in the course of 2018. The benefits in terms of saving will be mainly visible from 2019. The total saving linked to the release of the sites estimated for 2019 is between 40 and 50 GWh (includes offices, fixed and DPC¹).
- **Analysis of high-consumption sites.** During 2018 special attention was given to the high-consumption sites (offices, fixed networks and DPC) with a 0.5 GWh threshold for network withdrawals (345 sites in total with a total withdrawal of around 1 TWh). The objective is to identify possible areas of efficiency and maximise achievable savings. In 2019, the plan is to mainly concentrate efficiency measures at these sites.
- **Management initiatives.** In 2019, savings are also expected from management type activities to improve the energy performance of high consuming sites: these initiatives should result in a saving of around 40 GWh.

Data Centres and IT area

Work continued in 2018 on hardware disposal (storage and server) and shutdowns (e.g. orphan servers) relating to the internal market or 2017 projects about to be completed and invisible shutdowns (only detected retrospectively) with estimated savings for 2018 of around 11 GWh. The following actions were completed:

- **Adaptive cooling of Data Centre rooms.** The use of a previously tested solution to manage cooling systems with adaptive algorithms, which control the operation of air conditioners based on the thermal mapping of server rooms, was put into practice, thus reducing consumption from air conditioning. Energy savings were around 1.2 GWh.
- **Eco solution for IT infrastructure in the cloud.** An increase was made in the number of machines set up with real-time controlled and dynamic switch-off of "farms in the cloud" servers based on virtualisation mechanisms with optimisation of the use of physical resources (CPU and RAM). The solution, the efficiency of which has already been tested, improves the operation of IT farms in terms of performance and capacity planning information, enabling optimisation of the physical development of IT platforms even if the processing load required increases. The energy savings for 2018 (year fully operational) were around 0.6 GWh.
- **Cogeneration.** Particular impetus was given to the production of energy from trigeneration plants in 2018, with efforts to limit machine stops and at the same time consistently optimise plant operation. Self-produced energy has grown by about 27 GWh compared to 2017. In addition, in 2019, further trigeneration activities are being analysed for the Rozzano, Padua and Bologna sites relating to hydraulic circuit re-engineering and absorber changes. Analysis has also begun to identify suitable sites for the installation of additional units between 1.5 and 2 MW of power. For 2019, self-production of around 150 GWh is expected (+20 GWh compared to 2018). In 2019, increased efficiency is planned in the main DPCs with the introduction of Building Energy Management Systems (BEMS).

¹ DPC – Data Processing Centre.

In Brazil, in December 2018, a biogas plant using solid urban waste was put into operation with 5 MW of power for its own remote use. The facility supplies 864 (antennas) in the São Paulo area. With this initiative, TIM will become the first telephone company to use biogas to generate energy in an urban centre and supply its equipment. The objective is to reach 60% of the energy supply coming from renewable sources such as solar, wind, biogas and hydroelectric power plants by 2020. TIM Participações foresees a 22% saving on energy costs with a reduction plan for up to 2032. Currently, 18% of the company's energy supply comes from renewable sources.

Working locations/offices area

Mestre and Padua smart building testing. The project involves the monitoring and control of power and air conditioning systems through the installation of probes to monitor temperatures and consumption, with the aim of reducing energy consumption and increasing system efficiency. The activity does not involve replacing conditioning machines, but only deals with their management logic. The project was carried out with "turnkey" logic. In 2019, increased efficiency is planned in the main office sites with the introduction of Building Energy Management Systems (BEMS).

In one of the São Paulo offices in Brazil, a water treatment plant and a rainwater collection system was set up to clean the site's surrounding spaces and garden. The project involves implementing a retention system for rainwater from roofs and gutters, along with a physical-chemical system for the treatment and reuse of this water in sanitary facilities and with a total storage capacity of 680 m³. In another unit of São Paulo (Morumbi), part of the water used comes from an artesian well. In the Brazilian unit, there is a system to collect gutter rainwater and condensed water from the air conditioning with a 2.5 m³ capacity collection tank. The objective is to use this water to irrigate plants and wash the unit's courtyard. A similar project has been started in one of the operating units in Rio de Janeiro (TIM São Cristóvão).

Fixed Network area

- **Exchanges re-engineering project.** The plan was completed to adapt both power supply and air conditioning infrastructure units of exchanges, with the aim of achieving energy efficiency. The actions, completed at the end of 2018, covered 110 of the most energy intensive exchanges (UGSs and POPs), out of a total of 10,500, indicatively representing 11% of the total consumption of Exchanges - around 156 GWh per year in total. The project saving objective of around 20 GWh has been achieved. Phase 2 of the project to be carried out in 2019 is planned to be extended to an additional 100 plants selected from the most energy-consuming sites (and not included in other saving plans).
- **Plans for business systems modernisation** continued in 2018 through a simplification of the architecture; energy efficiency can be improved by gradually decommissioning pre-existing systems and platforms which have reached the end of their support and maintenance cycle (end of support), and migrating data network services to platforms with better performance.
- **Integrated decommissioning and Network Simplification** – compacting plans (PSTN, DSLAM ATM, DSLAM IP, SuperSGU) continue, as does the rationalisation and simplification of network platforms (Core Phonia Platforms, Transport Networks, Data Networks) with an added saving in 2018 of about 14 GWh. In 2019, a further saving of around 22 GWh is expected.

Mobile Network area

- **Radio Access Network Energy Saving:** the project started in 2018. The aim of the project is to reduce electricity consumption in 2G, 3G and 4G systems housed in radio base stations through the implementation/activation of specific features. The Intervention pool is about 13,000 RBS. The estimated saving when up and running (2019) is about 0.4 GWh (50% of which in 2018). A phase 2 of the project is being analysed, which involves the implementation of additional features.

- **Connection Power Reduction:** the project started in 2018. The aim of the project is to reduce the connection power of the electricity supply of RBSs, with criteria for mitigating possible disconnection risk, both to optimise all approximately 15kW power supply connections with an increase in supply to 17kW and eliminate the limiter, with consequent payment for the share of power consumption and not capacity. The expected saving is mainly linked to the reduction of fixed costs.

In Brazil the *business processes redesign* programme is being developed. It will examine various processes related to energy management. The programme aims to increase the focus on energy management by unifying end-to-end management activities. It includes energy efficiency measures and is part of the operational objectives of all areas directly involved. Free Cooling has also been implemented, a ventilation system with the installation of refrigeration equipment at sites which reduces the use of energy and refrigerant gases. The container removal project was also begun, for the removal of equipment from containers with air conditioning and installation of forced ventilation in the Radio Base Stations, which reduces energy consumption used for air conditioning and HFC emissions. Finally, other projects launched in 2017 to adapt network equipment continue: virtualisation when possible and installation of more efficient equipment.

Reducing staff travel

TIM is committed to finding solutions to reduce staff travel and movement. In addition to proposed flexible 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; their use shows a recorded increase of about 13.5% in 2018 compared to 2017. Details as follows:

- VAI On Line: 33,205 video conferences held by TIM and other Group companies;
- VAI On Line: 72,159 audio conferences held by TIM and other Group companies;
- Smart On Line: 55,634 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 optimise 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 Narrowband¹.

¹ 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.

Smart waste. Efficient management of the waste cycle for increasing sorted collection and reducing illegal dumping. The fill levels of the various recycling centres are measured in real time and vehicles sent out to empty them only when necessary. Result: time and expense are minimised 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 REPLICATE¹ 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 MONICA² project is focused on urban noise pollution and safety in public life. TIM contributed to the “Torino Smart City” project known as SMILE³ 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

[GRI 302-5] In order to improve the environmental efficiency of products offered to customers, attention has to be paid to their energy aspects to optimise consumption while meeting the needs of the services delivered and applying “design for environment” 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 TIM 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 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 2018 TIM BOX was launched, part of the eco-friendly line with an appropriate environmental declaration.

¹ REnaissance of PLaces with Innovative Citizenship And TEchnologies is part of the European Horizon 2020 programme.

² Management Of Networked IoT Wearables – Very Large Scale Demonstration of Cultural Societal Applications is part of the European Horizon 2020 programme.

³ SMarT mobilLity at the European land borders is part of the European Horizon 2020 programme.

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

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years

		Group	Domestic	Brazil
Energy generated by heating oil	MJ	19,943,628	100%	0%
Energy generated by natural gas	MJ	310,558,190	100%	0%
Total energy for heating	MJ	330,501,818	100%	0%
2018 v. 2017		(12)%	(12)%	NC
2018 v. 2016		(30)%	(30)%	NC

The data in the table shows a significant reduction in 2018 compared to 2017 and 2016 mainly attributable to real estate rationalisation and energy efficiency. In Brazil, given the particular climate conditions throughout the year, indoor heating is not used.

Transport

The data shown in the following tables 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.

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years

		Group	Domestic	Brazil
Energy from unleaded petrol	MJ	58,336,397	50%	50%
Energy from diesel fuel	MJ	572,373,719	100%	0%
Energy from LPG	MJ	47,203	100%	0%
Total energy for transport*	MJ	630,757,319	95%	5%
2018 v. 2017		(2)%	(2)%	10%
2018 v. 2016		(5)%	(6)%	0%
Total number of vehicles	No.	15,370	96%	4%
2018 v. 2017		(3)%	(4)%	0%
2018 v. 2016		(17)%	(18)%	(4)%
Total distance travelled	km	265,632,859	97%	3%
2018 v. 2017		3%	3%	5%
2018 v. 2016		(4)%	(5)%	5%

* Represents conversion into megajoules of the consumption of unleaded petrol, diesel and LPG (expressed in litres) and natural gas (expressed in kg).

In general, energy consumption for transport is decreasing.

Electricity procured and produced

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years

		Group	Domestic	Brazil
Electricity from mixed sources	kWh	2,386,331,836	76%	24%
2018 v. 2017*		(6)%	(1)%	(19)%
2018 v. 2016		(10)%	(9)%	(12)%
Electricity from renewable sources	kWh	221,531,269	25%	75%
2018 v. 2017		268%	(2)%	NC
2018 v. 2016		426%	32%	NC
Total electricity consumption	kWh	2,607,863,105	71%	29%
2018 v. 2017		(0.1)%	(1)%	3%
2018 v. 2016		(3)%	(8)%	13%

* 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 data refers to the total electricity purchased from mixed sources in 2017, equal to 1,716,694,496 kWh and to the cogeneration of electricity in 2017, equal to 102,996,893 kWh.

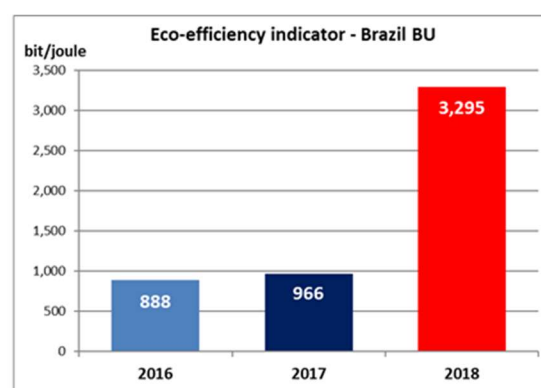
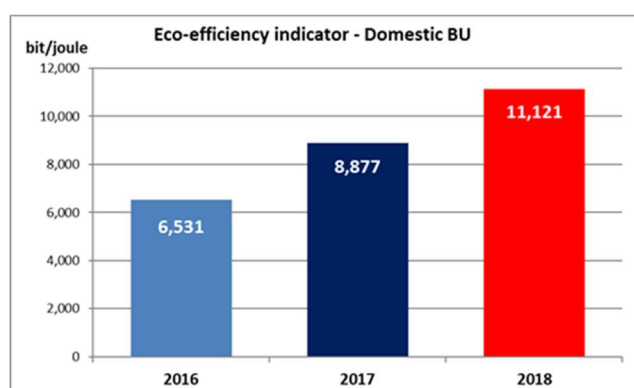
Consumption figures for electricity used to operate telecommunications and civil/industrial technological plants are shown in the tables. Thanks to energy efficiency measures implemented in 2018, overall electricity consumption has fallen.

The energy efficiency of TIM was also recognised through the awarding of Energy Efficiency Certificates (EEC, also known as White Certificates): in 2018 an additional 18,000 white certificates were allocated and sold with sales revenues of approximately 6 million euros in 2018.

The share of energy from renewable sources also increased in Brazil, due to more accurate reporting¹.

[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.

¹ In previous years Brazil always included renewable energy within the share of energy from mixed sources.



In 2018, the value of the indicator calculated for the Domestic BU was 11,121 bit/joule, up by 25.3% compared to 2017 and¹ by 70.3% compared to 2016. The commitment continues with the establishment for 2019 of an objective of 13,300 bit/Joule (see 2019 objectives in Appendix), equal to an increase of +19.6% on the figure for 2018. 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.

Also the eco-efficiency index calculated for Brazil shows a continuous improvement: in 2018 it grew significantly by 241% compared to 2017 and by over 271% compared to 2016. The significant increase in the Brazil indicator is due to LTE traffic being included in the 2018 calculation, accounting for 67% of total traffic.

The values of the indicators calculated respectively for Italy and Brazil are not directly comparable because the two organisations 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.

Water consumption

[GRI 303-1]

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years

		Group	Domestic	Brazil
Consumption of water drawn from artesian wells	m ³	8,476	17%	83%
Consumption of water provided by water supply companies	m ³	2,067,908	95%	5%
Consumption of water drawn from other sources	m ³	11,327	0%	100%
Total water consumption	m³	2,087,711	94%	6%
2018 v. 2017		(7)%	(7)%	(15)%
2018 v. 2016		(47)%	(48)%	(33)%

In general, water consumption tends to reduce thanks to targeted management and awareness-raising actions.

¹ * 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.

Paper for office and commercial purposes

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years

		Group	Domestic	Brazil
Non-recycled and non-certified paper purchased for office use	kg	27,981	100%	0%
Recycled paper purchased for office use	kg	23	100%	0%
FSC certified paper purchase for office use	kg	159,923	87%	13%
Total paper purchased for office use	kg	187,927	89%	11%
2018 v. 2017*		(4)%	(4)%	0%
2018 v. 2016		5%	7%	(10)%
Total paper purchased for commercial use	kg	2,470,035	68%	32%
2018 v. 2017		10%	16%	(1)%
2018 v. 2016		(13)%	(18)%	(1)%

* 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 180,070 kg of paper.

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) requirements¹. In 2018, bill frequency to customers with fixed line services was changed from the 2017 56-day cycle to a monthly cycle. Every month bills are sent to all customers with a consequent increase in paper consumption for commercial use.

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, staff travel (service/maintenance activities, business trips and commuting from home to work).

In addition to these, fugitive emissions of hydro chlorofluorocarbons, hydro fluorocarbons (HCFCs and HFCs) and other gases from air conditioning systems are also considered and converted into kg of CO₂ equivalent.

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. Unless otherwise stated, the atmospheric emission figures given here have been calculated based on the updated coefficients made available by the GHG Protocol².

Nitrogen oxides (NO_x) and sulphur oxides (SO_x) emissions [GRI 305-7] are negligible in Group emissions.

¹ See fsc.org

² Emissions relating to the consumption of electricity purchased from mixed sources in the Italian market have been calculated by using the coefficient published by the GHG Protocol (2009) which considers the national energy mix, and is equal to 386 grams of CO₂/kWh. For Brazil, the average coefficients for 2016, 2017 and 2018 have been used, as calculated and published by the Ministério da Ciência, Tecnologia, Inovações e Comunicações (Ministry of Science, Technology, Innovations and Communications), of approximately 81.7, 92.7, 74.0 grams respectively of CO₂/kWh.

[GRI 103-3: Management Approach] [GRI 305] The following table shows the Group's total CO₂ emissions.

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years

		Group	Domestic	Brazil
CO ₂ emissions from transport	kg	47,076,451	95%	5%
CO ₂ emissions from heating	kg	18,341,623	100%	0%
Emissions of CO ₂ equivalents for ozone depleting gases*	kg	24,668,762	21%	79%
CO ₂ emissions from electricity generation by cogeneration	kg	66,831,106	100%	0%
CO ₂ emissions from electricity generation using diesel	kg	9,002,922	93%	7%
Total direct emissions of CO₂ - under Scope1 GRI**	kg	165,920,864	87%	13%
2018 v. 2017		14%	4%	168%
2018 v. 2016		9%	1%	129%
CO ₂ emissions from purchases of electricity generated from mixed sources	kg	685,178,250	94%	6%
Total indirect emissions of CO₂ - under Scope2 GRI	kg	685,178,250	94%	6%
2018 v. 2017***		(6)%	(3)%	(36)%
2018 v. 2016		(11)%	(10)%	(21)%
CO ₂ emissions from work-home commuting****	kg	60,780,511	92%	8%
CO ₂ emissions from air travel*****	kg	5,200,007	56%	44%
Emissions of CO ₂ from hotel stays*****	kg	479,348	100%	NC
Total other indirect emissions of CO₂- under Scope3 GRI	kg	66,459,866	89%	11%
2018 v. 2017		(4)%	(5)%	9%
2018 v. 2016		(5)%	(5)%	(4)%
Total CO₂ emissions	kg	917,558,980	92%	8%
2018 v. 2017		(3)%	(2)%	(11)%
2018 v. 2016		(8)%	(8)%	2%

* The equivalent CO₂ emissions of the hydro chlorofluorocarbons (HCFCs), hydro fluorocarbons (HFCs) and other refrigerant gases are determined by reference to specific Global Warming Potential (GWP) coefficients for the various gas types: 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. In Italy the index is calculated as the average of the GWP of the various gases used and equal to 1,780 for HCFC and 1,300 for HFC.

** The comparison was made with methane consumption data from 2017, which was updated from that reported in the last Sustainability Report received after its publication. The updated 2017 figure is equal to 27,860,685 m³ of methane for cogeneration, whose related 2017 emissions amount to 54,693,813 kg of CO₂.

*** The comparison was made with updated 2017 data following a review. The updated 2017 figure is equal to 636,411,805 kg of CO₂.

**** 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 centre 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).

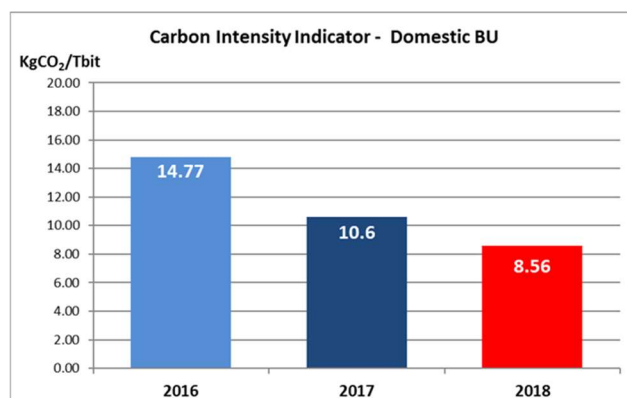
***** Emissions from stays in hotels were calculated only in relation to Italy and only take the Domestic BU into account. The emission factors were calculated using the characterisation factors issued by the Intergovernmental Panel on Climate Change (IPCC) in 2007.

Produced emissions have fallen compared to previous years thanks to a greater use of energy from renewable sources and a rational use of energy resources.

[GRI 305-4] TIM also measures the “Carbon Intensity” of its Domestic BU¹ by using an indicator that establishes a relationship between the company’s direct and indirect operational CO₂ emissions (Scope1 and Scope2), measured in kg, with the service offered to the customers in terms of 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 2018 the value of the indicator fell by more than 19% compared to 2017² and by over 42% compared to 2016. The traffic transmitted also increased by over 27% compared to 2017 and 58% compared to 2016.



¹ The operations of Persidera and the Olivetti Group are not included.

² 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 CO₂/Tbit.

Waste

[GRI 306-2] The data shown in the table refer to the quantity of waste consigned¹ and recorded by law².

Group breakdown by Business Unit (%) and % variation compared to the previous 2 years				
		Group	Domestic	Brazil
Hazardous waste	kg	3,531,669	84%	16%
Non-hazardous waste	kg	10,158,362	96%	4%
Total waste consigned*	kg	13,690,031	93%	7%
2018 v. 2017		19%	15%	144%
2018 v. 2016		8%	5%	66%
Waste sent for recycling or recovery	kg	13,311,036	96%	4%
% Waste sent for recycling or recovery		97%	99%	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 favourable opinion of the conference of State-Regions-Autonomous Provinces. In 2018, TIM decommissioned 120,740 poles weighing a total of 9,659 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 2018 the various management activities allowed logistics and network products (39,530 items) and commercial logistics products (80,854 items) to be regenerated and components and raw materials (400,987 kg in total, almost exclusively fixed telephony parts) to be sent for recovery. In 2018, TIM re-sold a total of 26,660 used mobile telephony items.

¹ "Waste consigned" means waste delivered to carriers for recycling or reclamation or disposal.

² 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 2017 is higher (+ 2.7%) than stated in the last Report. However, this increase was not taken into account in the 2018 on 2017 comparison of waste produced.



TIM PEOPLE

Commitment to our people

[GRI 103-1: Management Approach] [GRI 401] The materiality analysis conducted by TIM in 2018 confirmed the following material topics for the Group: managing labour relations and developing employment, health and safety of workers, together with skills development, reducing inequality and the ability to promote equal opportunities (new themes of 2018).

The telecommunications sector is a strategic and driving sector for the digital transformation process of the economy and society. Digitalisation is a profound and pervasive phenomenon that is revolutionising every area of family life and work. There is a strong integration between the development of high-tech equipment, innovative services and the rapid evolution of business processes and models. TLC operators play a leading role in this area, encouraging the marketing and dissemination of new digital services, driven by a strong acceleration and investment in new enabling technologies. Citizens, consumers, businesses and public administration can make use of these services thanks to an increasingly effective broadband and ultrabroadband network performance, both fixed and mobile, and the development of enabling platforms.

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 recognised 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 policy¹.

[GRI 103-2: Management Approach] [GRI 401] The Head of the Human Resources & Development Department is appointed by the Chief Executive Officer. The variable short-term remuneration policy (MBO) assigns the Head of Department objectives in keeping 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 for 2018 and objectives for 2019 in TIM S.p.A. relating to the main HR themes.

TIM S.p.A.

	Final figures 2018	2019 Target
Frequency rate*	6.72	6.00
Accidents per 100 workers	0.98	0.90
Training** - Coverage (percentage of employees who participated in at least one training session from the total population)	100.4%	98%

* number of accidents per million hours worked.

** the figure is calculated on number of personnel as at 31/12.

¹ 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.

[GRI 103-2: Management Approach] [GRI 401] [GRI 402] [GRI 404] In Brazil, TIM Participações has also put in place programmes designed to create and maintain a high-performing and diversified workforce and promote a healthy, safe and productive working environment for its personnel in order to maximise the potential of both individuals and the organisation, and position TIM among employer brands. In addition to the Group's Code of Ethics and Human Rights Policy, there are policies and processes to support these programmes such as, for example, Recruitment, Flex Office, Performance Management, Flexible Benefits, Career & Succession Plan, Diversity & Inclusion and Rewarding procedures. The Head of HR Strategy reports directly to the CEO of TIM Participações.

The involvement of TIM employees is essential to realise the strategic vision of the Group and training and communication activities were undertaken to publicise the company objectives with clarity and transparency and to support managers in explaining the strategy to their respective teams.

In 2018, the organisational framework evolved to support the company strategy so it could contribute to the company objectives by promoting the digital transformation. As for the customer experience approach and cost and process efficiency, the project to redefine company processes confirmed a set of actions to be implemented in order to obtain better results.

To achieve the objectives and keep up with ongoing evolution, TIM needs leaders that share its values, expertise and intentions. For this reason, the leadership profile revised in 2017 was implemented in 2018. The roll-out included leadership training sessions for all pipelines to develop and reinforce the necessary behaviour for current and future challenges.

[GRI 103-3: Management Approach] [GRI 401] [GRI 403] The following table provides a summary of the main final figures for 2018 and the 2019 objectives for the Brazil BU as regards the main HR themes.

Brazil BU

	Final figures 2018	2019 Target
Frequency rate*	0.88	0.88
Accidents per 100 workers	0.14	0.14
Training - coverage** (percentage of employees who participated in at least one training session from the total population)	88%	80%

* number of accidents per million hours worked

** the figure is calculated on number of personnel as at 31/12

Concise figures¹

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

	31/12/2018	31/12/2017	CHANGES
Italy	48,005	49,689	(1,684)
Abroad	9,896	9,740	156
Total personnel on payroll	57,901	59,429	(1,528)
Agency contract workers	0	0	
Total personnel	57,901	59,429	(1,528)

Excluding agency contract workers, the Group's headcount has decreased by 1,528 people compared to 31 December 2017.

The changes per BU are detailed in the following tables.

	Recruited	Departed	Changes
Domestic	547	2,198	(1,651)
Brazil	2,563	2,413	150
Other activities	33	60	(27)
Turnover	3,143	4,671	(1,528)

Turnover: detail by BU	Recruited	Departed	Movement within Group +	Movement within Group -	Changes
Domestic	398	2,046	149	152	(1,651)
Brazil	2,562	2,412	1	1	150
Other activities	3	33	30	27	(27)
Total	2,963	4,491	180	180	(1,528)

Terminations: detail by BU	Early retirement incentives*	Retirements	Dismissals	Voluntary resignations	Other causes
Domestic	1,559	23	54	261	149
Brazil	58	0	1,465	740	149
Other activities	29	2	1	1	0
Total	1,646	25	1,520	1,002	298

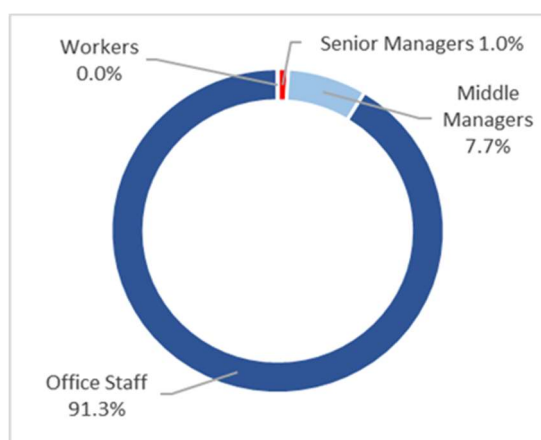
* For more details see note 27 "Employee benefits expenses" of the Group's Consolidated Financial Statements.

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.

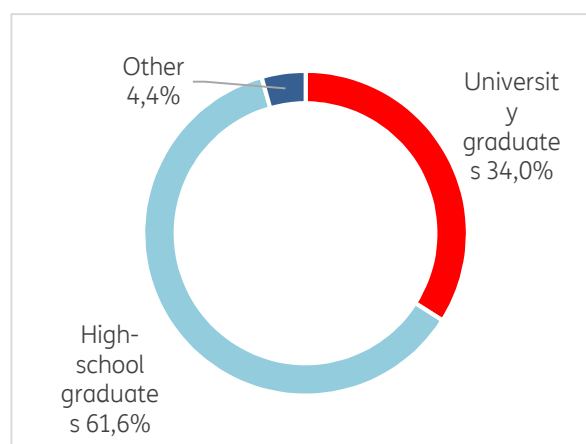
¹ Unless otherwise stated, the data shown in the tables contained in the TIM People chapter relates to all the Group companies.

Group: distribution by professional category and academic qualification

TIM Group: headcount break-down by professional category

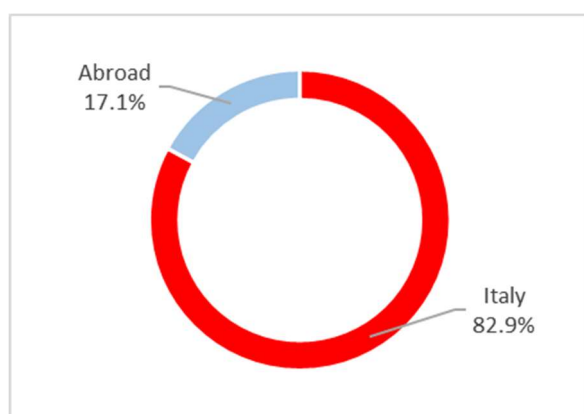


TIM Group: headcount break-down by academic qualification

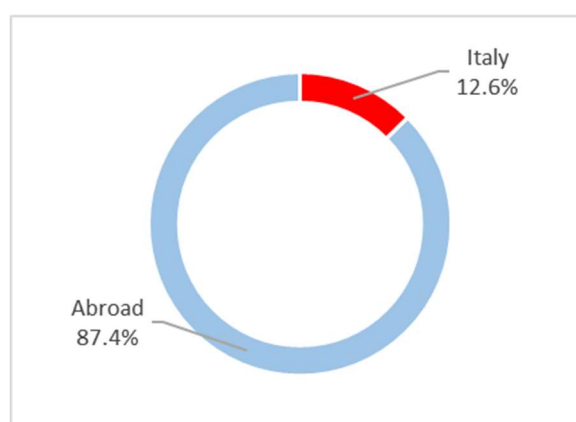


The geographical distribution and intake of personnel¹ by the Group are the following:

Distribution of TIM Group employees by geographical area



Distribution of intake of TIM Group employees by geographical area



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:

- [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.

¹ A numerical table of hirings comparing 2017 and 2016 can be found in the Appendix.

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 Italian “Pink Quota” Law (Law 120 of 12 July 2011) introduced provisions to protect gender equality in relation to representation on the administrative and control bodies of listed companies; the quota criterion will apply for three consecutive mandates.

This is why at TIM

- the Bylaws require that the BoD, and likewise the Board of Statutory Auditors, is made up of both genders, so that the members of the less represented gender make up at least one third of the total number of Directors/Statutory Auditors, rounding up to the next unit in the event of a fraction; moreover, this provision is not limited to three mandates but is applied on an ongoing basis;
- 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 introduced¹;
- 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.

[GRI 405-1] Members of the Board of Directors by age and gender

	31/12/2018	31/12/2017	31/12/2016
Men < 30	0	0	0
Men 30-50	0	1	2
Men > 50	9	8	8
Women < 30	0	0	0
Women 30-50	2	2	1
Women > 50	4	4	5

¹ For further information, refer to The skills model paragraph in this chapter.

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

	2018				2017				2016			
	Senior Managers	Middle Managers	Office Staff	Total*	Senior Managers	Middle Managers	Office Staff	Total	Senior Managers	Middle Managers	Office Staff	Total
Men	499	3,211	33,154	36,864	564	3,265	34,346	38,175	647	3,391	35,355	39,393
Women	102	1,242	19,693	21,037	108	1,222	19,924	21,254	126	1,235	20,471	21,832
Total	601	4,453	52,847	57,901	672	4,487	54,270	59,429	773	4,626	55,826	61,225
Up to 32 years	0	18	5,365	5,383	0	16	6,051	6,067	0	20	6,990	7,010
From 33 to 45	58	590	13,540	14,188	49	686	14,291	15,026	61	878	15,617	16,556
Over 45	543	3,845	33,942	38,330	623	3,785	33,928	38,336	712	3,728	33,219	37,659
Total	601	4,453	52,847	57,901	672	4,487	54,270	59,429	773	4,626	55,826	61,225

* 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.

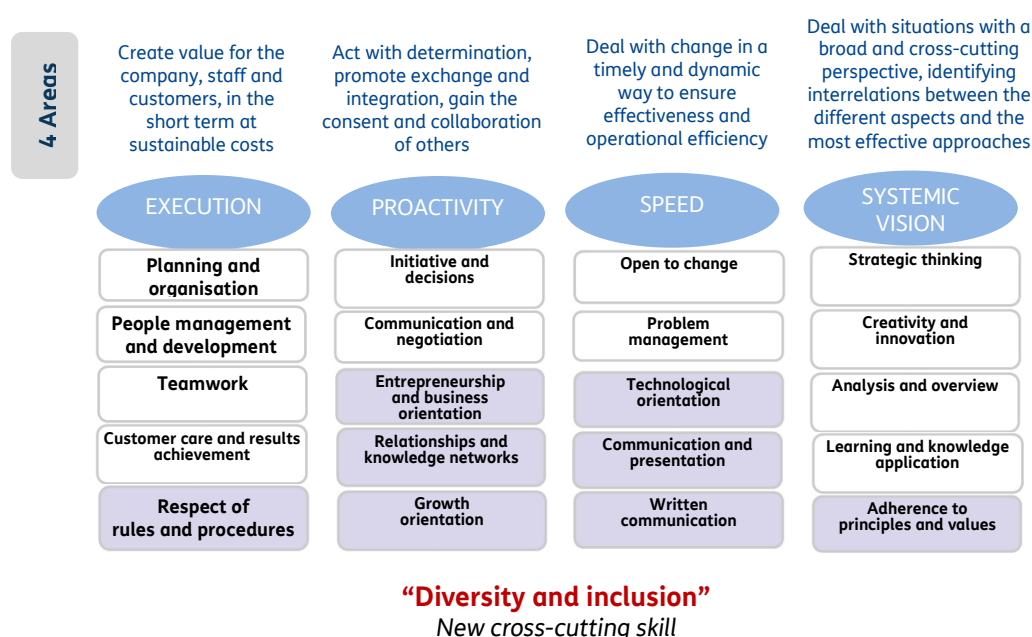
New skills and development

[GRI 103-1: Management Approach] [GRI 404] The 2018 materiality analysis confirmed the development of internal employment as a material topic for the entire Group.

The skills model

In 2018, the various components, processes and applications of the development model were further refined.

[GRI 103-2: Management Approach] [GRI 404] 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.



Skills evaluated
in the 2018 Performance Review

The main applications of 2018 are as follows:

- **Onboarding programmes:** for welcoming new recruits to the Company, to speed up their “time to perform”, encourage engagement and “intent to stay”. In 2018, the entire process was refined to increase its effectiveness and monitor its progress and effects.
- **Performance Management:** the process involves the evaluation of the goals and responsibilities of the entire workforce (managers, professionals and employees) and is divided into three phases (assignment of objectives, evaluation, feedback). In the first four months of this year the entire 2017 Performance Management process was concluded which involved the entire Domestic Business Unit (around 50,000 people): [GRI 404-3] 99.9% of people were evaluated by their direct superior and 87% stated that they received feedback from their superior. In July, a 2018 Performance Management process was launched with the assignment of objectives and was completed in September and involved 99% of the 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 particular, during 2018, the system to assess potential was further consolidated, in terms of methodologies and processes, and a review of the governance and post-assessment management phase was planned, to more effectively support people on their development path. 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 7 years, personalised paths with remuneration measures and valuable training initiatives have been identified and put in place. When filling organisational positions, TIM favours internal promotions identified using the succession planning system: each potential internal candidate’s suitability is assessed both for filling specific organisational roles and for their growth towards more complex roles. recourse to the external market is only on specific request of senior management or due to a lack of internal candidates available in the short to medium term.

- **[GRI 404-2] Self engagement Map (formerly Motivation Review):** to follow, last year’s assessment trialled in some companies of the Group (TCC, Sparkle, HRS and INWIT) the assessment tool was consolidated and a communication plan launched for its application in TIM S.p.A., beginning with a target of young people already working in the Company.

Development and skill activities in Brazil

[GRI 404-2] [GRI 404-3] In 2018, TIM implemented various programmes that had a major impact on people, consistent with organisational changes and competitive market positioning:

Career paths: the Career Workshop programme continued, aiming to promote reflection and encourage involvement and commitment to career management, raise awareness and promote a proactive attitude to the process, and encourage self-awareness, building a career and an Individual Development Plan.

Development Plan: in 2018, individual development process (PDI) focused on enhancing the role that each employee plays. Model 70-20-10¹ has been reinforced, offering different ways of training, with collaborative and practical methods.

Education plan: the training plans are directly connected to TIM’s strategy. The themes of accountability, new capabilities and customer experience were explored in more depth to increase the level of engagement and employees’ knowledge with a particular focus on new digital capabilities.

Digital Learning Trail: the employees’ *digital learning trail* has been developed and implemented, with focus on assets such as the digital mindset, innovation, accountability, customer experience, agility for execution, collaboration network thinking, change management (with 100 “change agents” being trained to spread digital transformation throughout TIM).

TIM Talks: in 2018, a development week took place, with the involvement of Human Resources, business managers and experts who offered employees across the country a unique self-development experience with workshops and talks particularly on business, culture, careers, leadership and human development.

Training

[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 2018 to encourage organisational learning.

Deployment of the Group’s Knowledge Management Model is in its fourth year of application. The activities carried out and their close monitoring have allowed us to deploy further activities to optimise and launch new initiatives to support the production and dissemination of new content, from creating internal and external relationship networks, exchanging knowledge and generating ideas, with the aim of encouraging the Group’s innovation processes.

In addition, in 2018 the knowledge network model was further developed with the establishment of a new type of corporate community called “TIMSh@re”. This is a key element of “business meta-organisation”, aimed at overcoming the traditional functional and linear approach to processes in favour of a synchronous and adaptive

¹ Model 70-20-10: knowledge is acquired in three ways. 70% through on the job training (activities carried out, problem solving, discussions with employees. This is experimental because it comes from practice and actual work); 20% through interpersonal relationships and respective feedback; 10% through training during courses, seminars, workshops and readings.

model with activities and skills interaction along the entire process chain with an end-to-end perspective.

In keeping with the identified programme definition drivers¹, the TIM Academy platform, which is always available with multi-device access, presents learning plans that are customised to the person and role, with an open training offer with guided self-learning courses on specialised skills and professions.

The training activities are divided into three macro-categories, shown below with the main activities carried out in 2018.

Management education

- **[GRI 404-2] 2017/2018 process:** in 2017, training for the managerial target focused on the cultural change needed to achieve the Plan objectives, on customer care and on management of people at times of transformation. The process, developed in “blended” mode, involved about 700 managers, proposing targeted and differentiated programmes based on the complexity of the roles managed. The process ended in May 2018. The “Around the Complexity” path for middle management was launched in the south, with the aim of providing tools to manage organisational complexity and support the development of e-Leadership to approximately 60 managers managing operational areas in the south. In 2019, the process may also be extended to other areas of the country.
- **Coaching/Mentoring:** in-person and online coaching courses were launched to support managerial roles.
- **Online library:** all managers have access to various online libraries to make full use of videos, webinars and materials from national and international speakers on various topics.

Development of role-based and specialised skills, and new capabilities

[\[GRI 103-3: Management Approach\]](#) [\[GRI 404\]](#) [\[GRI 404-2\]](#) Training to develop role-based and specialized skills as well as *new capabilities* is essential for the implementation of the strategic drivers, and therefore occupies a central role in the Group’s training investments plan.

[\[GRI 404-2\]](#) In 2016 a professional retraining service was launched called “Job Centre”, which starts by identifying the company requirements and then goes on to recruit and offer training courses useful to people in acquiring the skills and knowledge necessary to cover the new roles.

In the first few months of 2018, as part of this now completed project, a further 181 professional retraining activities were completed which, added to those carried out in the previous 18 months, resulted in a particularly significant number of retrained staff, 2,925 in the three-year 2016/2018 period. This was made possible with a structured training plan organised to reinforce specialist skills as well as transversal skills for company processes, which included classroom sessions alternating with on the job training.

On completion of the activities related to the objectives for the period and organisational changes, the Education department currently oversees retraining paths and the alignment and dissemination of skills within the Group.

¹ Which are:

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

Development and empowerment

[GRI 404-2] The organisational changes and the evolution of business-linked skills require new tools to support the change and the awareness of TIM's people, such as the already discussed agile working in addition to

- **Digital skills development:** TIM Academy developed a digital course on target population for all Group employees. They begin by completing a self assessment of their knowledge and are then offered a European DigComp standard certified training course¹. An “open badge” is awarded following an end-of-course assessment test. In 2018 over 15,000 open badges were awarded and over 30,000 people took part in the training;
- **“English@TIM”:** English language training open to all the Group's employees. A personalised English course can be put together thanks to the online language training platform;
- **The TIM Skills Model:** this e-training programme, for managers and professionals, is to help promote the new TIM Skills Model to face new business challenges (see the Development and New Skills section in this chapter);
- **Individual development training plans:** e-training courses available for all those working at the Company, to boost the skills;
- **Training plan for young staff:** about 300 employees were included in ad hoc training plans to enhance their in role skills.

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. In this sense, institutional and mandatory training, for the entire population, aims to raise awareness and disseminate knowledge on the issues pursued by the Compliance, Health, Safety & Environment, Regulatory and Equivalence (for issues related to Antitrust and Equivalence) departments in addition to the Privacy and ITS Compliance 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 go about 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.

In Brazil, all new employees attend courses on key issues for TIM, such as ethics, sustainability, environmental policies, safety, the skills model, technical training and anti-corruption policies. Employees take part in courses in line with Group skills. The courses begin with business integration, in-depth corporate solutions analysis and caring activities and matching these issues to department activities.

In 2018, the integration concept was extended to all employees who start the development process on their first day at TIM, and they are supervised and supported for the whole of their first year at the Company in the process of integration, orientation, training and assessment. The training plans are directly connected to TIM's strategy. To increase the level of involvement and knowledge of our employees, responsibility, new digital skills and customer experience topics were addressed. The customer experience topic has been developed through training employees to become topic ambassadors in TIM.

¹ The DigComp model is a common European reference framework for the development of digital expertise.

Group training figures

[GRI 404-1] The tables below show Group training hours by professional category. The appendix contains a comparative focus on training by gender, as well as a breakdown of the most significant training areas (environment, health and safety, Human Rights, anti-corruption).

2018	Hours		Participation ¹	Participants	Coverage ²
	Totals	Per capita			
Total	1,694,508	29.27	939,162	58,654	101.3%
Senior Managers	18,432	30.67	6,360	648	107.8%
Middle Managers	104,679	23.51	87,364	4,344	97.6%
Office Staff	1,571,397	29.73	845,438	53,679	101.6%

2017	Hours		Participation	Participants	Coverage
	Totals	Per capita			
Total	1,722,336	28.98	636,980	57,954	97.5%
Senior Managers	22,817	33.95	6,782	663	98.7%
Middle Managers	95,654	21.32	44,537	4,400	98.1%
Office Staff	1,603,865	29.55	585,661	52,891	97.5%

2016	Hours		Participation	Participants	Coverage
	Totals	Per capita			
Total	1,823,553	29.78	505,888	57,591	94.1%
Senior Managers	27,874	36.06	3,817	745	96.4%
Middle Managers	87,474	18.90	23,515	4,266	92.2%
Office Staff	1,708,205	30.60	478,556	52,580	94.2%

[GRI 404-1] TIM invested 13.8 million euros in training courses in 2018, equal to a cost of 238.5 euros per head. 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 deliver³.

¹ Shows the overall number of participation in training sessions, in the various forms provided (classroom, online, training on the job).

² 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 number of staff at 31/12.

³ 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.

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 comparable by size and/or market capitalisation.

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.

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. In 2018, as in 2017, the management incentives structure was simplified by reducing the number of objectives.

The MBO 2018 system provides for a "gate" objective made up of the company indicator (Group EBITDA), a bonus access condition linked to all the incentive objectives and applied indiscriminately to all participants in the plan. The gate target for 2018 was not achieved.

For those who report directly to Executive Directors¹, the bonus target values are set in continuity with 2017 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.

There are Group, departmental and individual objectives. For 2018, the performance management weighting was reduced from 30% to 10% to give greater importance to departmental objectives. The Performance Management objective for all MBO recipients (with the exception of the Executive Directors) will continue to be fuelled by the overall assessment result, which takes into account both individual objectives and skills to the same degree.

The accrued bonus is fully liquidated in cash form, at the time that the results achieved are confirmed.

A contractual clawback² mechanism is in force, which allows retrieval of the variable remuneration paid out to Executive Directors and managers with strategic responsibilities starting from 2016. As defined in the policy, the clawback clause can be triggered in the three years following payment of the sums.

¹ To provide accurate information on the relationship between Senior Management remuneration and that of the company population as a whole [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 (section II pages 23-25) and in the Annual Financial Report (Consolidated Financial Statements Note 27 - Employee Costs page 221).

² A contractual clause allowing variable remuneration paid to be recovered in the event that the disbursement was a result of malicious or grossly negligent behaviour of the Executives involved, or in the event of a data formulation error that led to a balance sheet restatement.

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 24 July 2018, the Board of Directors approved the 2018-2020 LTI Plan, Performance Share plan, with a three-year vesting period¹, and a 2-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 LTI Plan is also subject to the claw back clause for the Chief Executive Officer and senior management with strategic responsibilities.

The benefits and welfare area constitutes the non-monetary element of remuneration; the Company also confirmed a substantial investment in terms of dedicated economic resources in 2018.

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. Consistent with this approach, from 2018 recipients of the performance bonus (the collective incentive system aimed at the entire non-director population and not involved in individual incentive instruments) can choose to convert the monetary premium into welfare services, thus benefiting from associated tax relief.

The following are the main objective types linked to sustainability in the company MBO system

This year the objectives for Human Resources, Environment, Shareholders, Institutions and Community stakeholders have

Reference stakeholders	Targets subject to incentives	% of managers (to whom the target applies)
Customers	Customersatisfaction	52%
	Qualityofdelivered service	85%
	Quality of the service perceived by consumer and business customer	27%
	Quality of the service perceived by other national fixed andmobile telephony operators	18%
Transformation Project		95%

merged in the new Transformation Project corporate objective and apply to 95% of managers, with a total 10% weighting on the overall objective.

¹ 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 2018 materiality analysis confirmed managing labour relations as a material theme and identified stakeholder engagement as a new 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 dialogue 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 organisations 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] Organisational changes with significant effect on employment levels and personnel are discussed with the trade union representatives and, in some cases, an ad hoc agreement is stipulated, specifying the terms and conditions of the reorganisation. [GRI 408-1] [GRI 409-1] Collaboration with the workers' representatives, together with the 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 labour¹.

The Industrial Relations model

TIM has developed its industrial relations model over time to be geared towards ensuring constant dialogue and constructive engagement aimed at promoting the appropriate participation of trade union representatives and organisations.

The structure of TIM's current industrial relations model, formalised with the trade unions in the Protocol of 23 June 2016, 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 an active decentralised participation allowing the specific regional needs and opportunities to be better understood and combined by both parties. Today, 450 TIM people hold the office of trade union representative. TIM recognises 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 labour agreement.

Due to the organisational complexity and multi-regional presence, trade union representatives elected a national representative body - in line with the Consolidated Law on Representation 10 January 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.

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 dialogue that takes place both nationally and locally.

¹ [GRI 103-3: Management Approach] [GRI 408] In terms of child labour, the policies allow for some completely legal exceptions, such as, for example, training contracts for which incentives are provided by the Brazilian government.

The 2018-2020 Business Plan and the application agreements for the 2019-2020 two-year period

This has allowed agreements to be reached for the implementation of efficiency improvement plans that can mediate between the needs of the workers and those of the Company. For example, a complex negotiation process involving the leading trade union organisations was completed in late 2015 with the signing of a framework agreement to manage staff redundancies. Like its predecessors, the agreement provided for the use of a *mixture* of integrated instruments and measures that are not socially traumatic but that are economically sustainable, including the use in 2016-2017 of Defensive Solidarity Contracts, as required by the *Jobs Act*, combined with the strategic role of the training lever, as a pivotal element to encourage professional retraining and re-qualification in order to counteract redundancies. Defensive Solidarity Contracts are agreements that provide for working hours to be reduced in order to avoid downsizing. For the workers to whom the contract will be applied, provision is made for INPS (Istituto Nazionale della Previdenza Sociale) to make up part of the remuneration not received due to the reduction in working hours.

The Plan management agreement provided that at the end of the Defensive Solidarity Contracts two-year period the Parties would define - as indicated in the framework agreement plan - a subsequent agreement to also ensure occupational protection for the 2018 financial year, through a Solidarity Contract with a duration of 12 months. Having noted the impossibility of implementing the planned programme, TIM had to identify new solutions to support the objectives of the Business Plan.

In this framework, negotiations took place with the National Trade Union Representatives Coordinator and the trade unions for the national labour agreement, launched January 2018 and in line with the 2018-2020 Plan and related employment measures, in an attempt to identify a balanced and timely solution to meet business needs and objectives. The negotiations took place over numerous sessions where TIM put forward its proposal based on a Plan to make around 6,500 staff reductions without forced redundancies and the recruitment of about 2,000 young people. This proposal was not agreed by the union.

In March 2018, negotiations reopened and TIM further outlined its operating market scenario, the sector trends and the guidelines of the 2018-2020 Strategic Plan, approved by the BoD in March 2018, detailing the guidelines and programmes in place to take better advantage of business opportunities, as well as the Plan's organisational repercussions and consequent effects on employment levels. The company has therefore put forward new proposals in the hope of identifying shared solutions for Plan management but this attempt to reach shared and sustainable solutions has not been agreed upon by the trade unions either.

The Agreement of June 2018 concludes its complex path, as part of the joint examination sessions pursuant to Art. 24 of Legislative Decree No. 148/2015, with the signing of an agreement with the Ministry of Labour and Social Policy, which has defined a series of measures and actions to support the pursuit of business objectives and management of the 4,500 announced redundancies and connected to the 2018-2020 Business Plan, approved in March 2018, through unforced and socially sustainable methods.

[\[GRI 103-3: Management Approach\]](#) [\[402\]](#) In summary, in the signed agreements framework, the Parties have agreed to:

- the application of the Defensive Solidarity Contract, affecting about 30,000 TIM people; The contract provides for a vertical reduction of working hours of 10%, out of a total of 26 days over 12 months, distributed on a predefined calendar, starting in June 2018;
- the confirmed early retirements under the agreement of October 2015 pursuant to Art. 4 of law No. 92/2018 planned for the year 2018, while for the two-year period 2019-2020 a new agreement is expected for a further 4,000 early retirements;
- the shared intention to begin negotiations on specific issues such as the performance bonus, holidays and second level bargaining, aimed at safeguarding the company's competitive ability, improving labour productivity and operating efficiency, in the context of people development;
- the opportunity to relaunch industrial relations, with a path of negotiations, which take on a central importance in the process of radically changing the Group's organisational, productive and competitive conditions.

In line with the commitments referred to in the agreements of June 2018:

- a specific agreement on PBs¹ was signed in July 2018, which reconfigures the mechanisms for providing the EBITDA indicator value in line for that defined for MBOs² for senior management for the remaining duration of the agreement. The threshold set for EBITDA (weighted at 40%) is 95% with a return of 70% on the value of the PB;
- negotiations on Industrial Relations and 2nd bargaining levels have been launched.

On 26 February 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:

- 31 May 2024 and give their consent to end the employment relationship in 2019;
- 31 December 2025 and give their consent to end the employment relationship with effect by 30 November 2020. Particular attention is paid to the TIM people with serious illnesses: the company will already 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.

As part of the provisions identified in the agreement pursuant to Law 223/1991 of 8 November 2017, a specific accompanying measure was provided for ending the employment relationship - on a voluntary basis - for employees meeting the necessary requirements to access to "Quota 100 pension" (Decree Law 28 January 2019 No. 4).

Work-life agreements

- In September 2018, the Company and trade union signed specific agreements, aimed at facilitating working methods for 700 TIM employees in Genoa and the province, following the collapse of the Morandi bridge. In particular, the memorandum of understanding provides for the adoption of temporary extraordinary measures to reduce the inconvenience for employees both for travel between home and work, and that related to carrying out their professional activities, with the intention to assist with the state of emergency in the city.
- For staff in Rome and Bari, cities with particular interests in the company office rationalisation project, an agreement was reached to extend the number of agile working days at home agreement for 2018, to facilitate the work-life balance.
- In 2018, TIM people were able to choose to take advantage of a days of paid leave in lieu of the economic payment contractually agreed for the 4 November bank holiday. This opportunity, also aimed at promoting work-life balance, was shared in agreement with the trade unions. At local level, similar agreements were signed for the local patron saint holidays falling on Sundays in 2018.

Senior Management Staff

In February 2018, an agreement was signed with the senior management staff trade union representative, which will allow for a resignation incentive, through a mix of new and socially sustainable instruments, such as Art. 4 of Law 92/2012, to ensure efficiency targets over the period are met (100 Executives in the TIM, Olivetti, INWIT, HRS, Sparkle, Telecontact Centre and TI Trust Technologies areas). The Agreement also provides, in line with the legislative changes on the subject, a welfare plan for the Group's senior management for the two-year 2018-2019 period.

[\[GRI 103-2: Management Approach\]](#) [\[GRI 402\]](#) In Brazil in 2018, TIM held two meetings with national federations that together represent the whole country to negotiate the renewal of the 2018/2019 Profit Sharing Plan. In addition, the renewal of the 2018/2020 Collective Labour Contract was also addressed, which included, among other things, new clauses for 20-day paternity leave, a holiday for call centre operators and the possibility for women to return early from maternity leave in certain circumstances.

¹ Performance Bonuses.

² Management by Objectives.

Health and safety

[GRI 103-1: Management Approach] [GRI 403] The 2018 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. [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 over 100 Worker's Representatives for Safety distributed throughout the country who support 5 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 organisations, 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.

[GRI 403-3] In this context, the "Health, Safety & Environment" (HSE) department supports Company organisation 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.

[GRI 403-2] 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. [GRI 403-3] These activities are performed by specialised 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.).

[GRI 403-2] The control measures applied to eliminate or contain the risks include:

- the numerous health and safety training programmes, 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 organisational 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 2018 in updating of the risk identification and assessment process in line with the revised employer model, and the consequent review of the organisational and procedural framework linked to the management of prevention aspects.

Monitoring campaigns with instrumental surveys focused in particular on physical agents such as: indoor, outdoor and electromagnetic fields noise; an indoor pollutants monitoring plan was also launched. In the second half of the year, the work-related stress risk assessment was also launched. 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.

A number of digital projects are in the trial phase in collaboration with technical personnel; these are also aimed at the application of new technologies in the Safety area with particular reference to work at height and in confined spaces.

Injuries and occupational illnesses

[GRI 403-2] The data and the main accident indices for TIM S.p.A. are shown below.

	31/12/2018	31/12/2017	31/12/2016
Number of accidents (excluding in progress) *	424	481	524
Severity index**	0.18	0.20	0.23
Frequency rate**	6.72	7.67	8.66
Average injury duration in hours	145.07	139.81	145.51
Unproductivity index*	1.13	1.26	1.52
Accidents per 100 workers	0.98	1.08	1.21

* 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.

** 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

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 travelling involving workers for which companies are required to pay an INAIL¹ premium.

The positive trend of a reducing number of occupational accidents is confirmed in 2018, with a recorded decrease of 9.3% compared to 2017. Accident indexes, with the exception of a slight increase in the average duration of injuries, also show an improvement compared to the previous year's values. Details on the accidents, occupational diseases and absences required by the GRI [GRI 403-2] standard are given in the Appendix to this chapter.

¹ National institute for insurance covering accidents at work.

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 2018, occupational diseases reported by workers related to musculoskeletal, respiratory, auditory and central nervous system diseases 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 403-2] The data and the main accident indices for Brazil BU.

	31/12/2018	31/12/2017	31/12/2016
Number of accidents (excluding in progress)*	13	12	15
Severity index**	0.01	0.01	0.01
Frequency rate**	0.88	0.74	0.81
Average injury duration in hours	95	84	178
Unproductivity index**	0.01	0.06	0.14
Accidents per 100 workers	0.14	0.13	0.15

* The figure does not include dressed injuries

** 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

[GRI 103-2: Management Approach] [GRI 403] In relation to Health & Safety issues in 2018, 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 digitise 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 programmes 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 organisational 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 hours 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 organisational identity: from the Ethics Code to the Human Rights Policy and values.

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 2018, TIM was confirmed in the Top 100 of Thomson Reuters' Diversity and Inclusion Index, moving from 93rd position in 2017 to 6th, the top Italian company and the top telco in the world. TIM's inclusion in the 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, organisational well-being and therefore company performance.

Work-life balance

Work-life balance is the first pillar of TIM's welfare and is based on the belief that performance and organisational well-being are connected to each other and to the organisation of family and work life. In 2017, confirmed in 2018, 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 ones include: 7 company nurseries and 1 company infants' school; 333 reimbursements for partial cover of school fees for employees' children enrolled in nurseries and infants' schools or for babysitting services; 43 "TIM Summer" campuses/camps/colleges for employees' children for a total of 6,278 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, 63 inter-cultural study grants study for children with good school marks. Moreover, they can access a wide programme of agreements with external organisations (around 200) via 2 e-commerce portals customised for TIM.

The “Special Welfare” programme, as described in the paragraph on remuneration policies in this report, has offered TIM’s people, who receive the Productivity Award and one-off contract renewal, the possibility of converting the bonus into services, which can be purchased through a dedicated platform or by requesting reimbursement of expenses already incurred, in this way enjoying the tax advantages offered by law.

In 2018, a programme was launched to raise awareness of healthy lifestyles and illness prevention. The first e-learning training module, available for all on the TIM Academy platform, deals with sexually transmitted diseases.

Working hours management

[GRI 103-3: Management Approach] [GRI 407] The second pillar of TIM’s welfare initiative, which is especially based on Agile Work, a project allowing people to work from home or satellite offices closer to home, which involved around 14,000 people during its trial which finished on 31/12/2018. In total, 300,000 agile days were used (63% from home) with 190 satellite offices in 150 cities nationwide available, for a total of 32,936 available places every month. Taking into account travel avoided, over 260,000 hours of commuting were saved (with a corresponding quality of life improvement), amounting to over 8 million kilometres and a related 1,200 tons of CO₂ avoided. At the end of the trial it was decided to extend Agile Work for part of 2019.

Another important area of action is Mobility Management, whereby TIM helps people travel from home to work and back by car pooling, company shuttle buses (235 trips per day to the company’s offices in 5 cities), bicycle racks at company offices (1,782 bicycle parking spaces in 29 cities and 60 company offices).

Inclusion Management

[GRI 103-2: Management Approach] [GRI 405] [GRI 406] [GRI 103-3: Management Approach] [GRI 405] [GRI 406] [GRI 405] In 2018, TIM took part in testing of an analysis model on the themes of inclusion with La Sapienza University, which clearly demonstrated that people who feel included and have the better inclusion skills have the highest satisfaction and engagement levels. For TIM working on inclusion is crucial for corporate performance.

At the end of 2018, an internal survey was carried out, in partnership with La Sapienza University of Rome, involving a sample of 4,000 people representing the TIM S.p.A. on the themes of personal initiative and work context. One section was dedicated to employee satisfaction, based on the original Smith Kendall and Hulin scale (1969): the average satisfaction value calculated, on a scale from 1 to 6, was 4.12¹.

The main areas of development of TIM’s Inclusion Management are:

- **Cultural diffusion and awareness:** through the TIM Equity & Inclusion Week, with courses on Human Rights, inclusion in general and disability management; launch of the #TIM4inclusion community; the social network campaign #TIM4inclusion; a specific reference to the issues of inclusion in the key organisational identity documents: code of ethics, human rights policy, charter of values, leadership model.
- **Disability management:** at TIM, there are over 2,000 employees with disabilities, accounting for around 4% 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 employees²;
 - the activities of the Working Capital accelerators that assist several disability project start-ups;
 - support for employees’ children with disabilities during TIM Summer camps;

¹The percentage of highly satisfied employees (5 + 6) was 28.5%.

² 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.

- **Gender:** TIM is working in partnership with Valore D¹, both as a supporting member and as a member of the Board of Directors. Because of this, more than 100 individuals a year have the opportunity to attend skill-building courses, mentoring and coaching programmes, as well as courses and workshops on welfare and work-life balance²;
- **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);
- **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:

- 1,710 Group employees have renewed their commitment to helping CIAI³, the Community of Sant'Egidio and Save the Children, giving their support to the remote adoption of children, with a total contribution of around 190,000 euros; 44 blood donation days were organised (around 10,800 blood donations a year);
- in eight company offices, charitable collections for non-profit organisation were held, promoted by employees; over 700 employees signed up to take part in "Race for the Cure" organised by the Susan Komen Foundation for breast cancer research.

[GRI 103-3: Management Approach] [GRI 401] In Brazil, given the importance of the people who work for the Company, climate investigations are particularly significant. 95% of employees took part in the 2018 corporate climate survey, corresponding to 8,487 participants, beating the previous year's 7,986 participants by 4 percentage points. The general degree of approval in TIM was 75%, marking a 4 percentage point improvement on 2017.

[GRI 103-2: Management Approach] [GRI 405] In 2018, roadshows were held where senior managers presented the 2017 survey results at various sites. Seminars were held to increase knowledge and define the priorities with the Executive Committee. Moreover, second level managers were invited to participate in working groups and propose action plans for climate-related priorities: Cooperation, Strategy, Training and Structure & Processes. Specific action plans to improve the results in 2018 were provided for sectors that obtained the most critical results in 2017. Thanks to the targeted work, the level of consensus in these sectors increased.

Diversity & Inclusion represents another very important aspect for the Company. TIM believes that diversity is a reflection of society and therefore of the employment market. The Company promotes a culture that respects and appreciates differences, in the conviction that the greater the diversity within a group the greater the exchange of experiences and solutions that help to create a healthy working environment and a competitive advantage in the marketplace. As described in the Social Responsibility Policy⁴, any expression or forms of discrimination are expressly prohibited, whether they are based on sexual orientation, ethnic origin, gender, disability, age or other things.

¹ www.valored.it

² TIM has also joined the Women's Employment Manifesto, a document whereby it is committed to 9 areas of activity; TIM operates through work-related learning to bring students into contact with a technologically-advanced company like TIM, participation in projects (such as Valore D's "InspiringGirls") aimed at girls in particular to overcome the preconception that scientific and technological subjects are a prerogative exclusive to male students, and the organisation of the Girls Hackathon #TIMgirlshackathon.

³ Italian Centre for Childhood Aid.

⁴ <http://ri.tim.com.br/ShowCanal/Sustainability?K=4K0QqB9zlbMs3+gpxdxTA==>

To promote the inclusion of disabled people (pessoas com deficiência – PcD) in the Company, TIM continued the PcD programme ensuring that the available work positions are also open to this population. The company also participated in special job fairs aimed at disabled people and put a variety of measures in place to make its facilities accessible to all, quickly adapting interior spaces and pursuing awareness-building activities with managers and teams.

In doing so, TIM has been able to increase the number of disabled people hired. In fact, with reference to the hiring quota percentage (5% of the total staff) established by the Conduct Adjustment Agreement (Portuguese acronym: TAC) signed with the Brazilian Prosecutor's Office (Law no. 8213/91), as of October 2018 TIM, having hired 185 disabled people, was compliant by 41%.

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. In 2018 employees parenting reasons were extended (for example: purchasing a child's first home) and care/assistance of their relatives (for example: needs arising from the relatives of colleagues (for example: care of relatives).

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 2018, the association disbursed refunds totalled approximately 51 million euros (around 550,000 cases). As of December 31, 2018, the Association had 144,000 members, including 46,000 employees, 32,500 pensioners and 65,500 family members.

ASSIDA provides senior management staff with refunds for the cost of supplementary health services to those provided by the Italian national health service. As of December 31, 2018, the Association had 3,237 members in service or retired, in addition to family members, making a total of more than 6,500 assisted members.

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. At 1 January 2019, there were 36,501 subscribing employees of Group companies, around 57,900 total subscribers, and 215 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 and 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.

As of December 31, 2018, there were 40,940 members, including 35,628 employees and 5,312 pensioners. In 2018, CRALT made an average contribution of 16% to the cost of activities for the benefit of its members.

APPENDIX

Below is the analytical data for the company workforce, broken down according to the GRI Standards.

[GRI 102-8f] The Group figure includes not only the Domestic and Brazil Business Units, but also other minor entities, for very few units. In accordance with the principle of relevance, no specific column has been added for these entities.

[GRI 102-8a] Employees by contract type and gender

	2018 Permanent contract		2017 Permanent contract		2016 Permanent contract	
	Man	Woman	Man	Woman	Man	Woman
Group	36,787	20,963	38,107	21,184	39,306	21,767
Domestic	31,866	16,183	33,267	16,446	34,379	16,746
Brazil	4,896	4,762	4,794	4,714	4,860	4,989

	2018 Fixed-term contract		2017 Fixed-term contract		2016 Fixed-term contract	
	Man	Woman	Man	Woman	Man	Woman
Group	77	74	68	70	87	65
Domestic	77	74	68	70	86	65
Brazil	0	0	0	0	0	0

[GRI 102-8c] Employees on permanent and fixed-term contracts, by job type and gender.

Employees on permanent contracts

	2018				2017				2016			
	Full Time		Part Time		Full Time		Part Time		Full Time		Part Time	
	Man	Woman	Man	Woman	Man	Woman	Man	Woman	Man	Woman	Man	Woman
Group	35,289	13,615	1,498	7,348	36,559	13,907	1,548	7,277	37,776	14,187	1,530	7,580
Domestic	30,874	10,202	992	5,981	32,220	10,496	1,047	5,950	33,389	10,754	990	5,992
Brazil	4,390	3,397	506	1,365	4,293	3,388	501	1,326	4,320	3,403	540	1,586

Employees on fixed-term contracts

	2018				2017				2016			
	Full Time		Part Time		Full Time		Part Time		Full Time		Part Time	
	Man	Woman	Man	Woman	Man	Woman	Man	Woman	Man	Woman	Man	Woman
Group	6	5	71	69	4	2	64	68	5	3	82	62
Domestic	6	5	71	69	4	2	64	68	4	3	82	62
Brazil	0	0	0	0	0	0	0	0	0	0	0	0

[GRI 102-8a] Employees on the payroll and agency contract workers, by gender.

Employees on payroll

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	36,864	21,037	38,175	21,254	39,393	21,832
Domestic	31,943	16,257	33,335	16,516	34,465	16,811
Brazil	4,896	4,762	4,794	4,714	4,860	4,989

[GRI 102-8d] Agency contract workers

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	0	0	0	0	0	4
Domestic	0	0	0	0	0	4
Brazil	0	0	0	0	0	0

[GRI 102-8b] Employees by geographic area and gender

	2018			2017			2016		
	Italy	Abroad	Total	Italy	Abroad	Total	Italy	Abroad	Total
Men	31,788	5,076	36,864	33,208	4,967	38,175	34,338	5,055	39,393
Women	16,217	4,820	21,037	16,481	4,773	21,254	16,874	5,048	21,832
Total	48,005	9,896	57,901	49,689	9,740	59,429	51,122	10,103	61,225

[GRI 102-8] Employees of suppliers working at the Group offices and whose activities are part of the core business of TIM¹

	2018	2017	2016
External FTE on site	569	631	943

¹ 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.

[GRI 401-1a] ¹Hirings by age and geographical area

	2018			2017			2016		
	<30	>=30; <=50	>50	<30	>=30; <=50	>50	<30	>=30; <=50	<30
Group	1,506	1,398	59	1,355	1,022	64	1,518	736	63
Domestic	191	184	23	176	142	34	214	144	38
Brazil	1,313	1,213	36	1,176	880	30	1,303	592	25

	2018			2017			2016		
	<30	>=30; <=50	>50	<30	>=30; <=50	>50	<30	>=30; <=50	<30
Group	2.6%	2.4%	0.1%	2.2%	1.7%	0.1%	2.4%	1.2%	0.1%
Domestic	0.4%	0.4%	0.0%	0.3%	0.3%	0.1%	0.4%	0.3%	0.1%
Brazil	13.7%	12.6%	0.4%	12.3%	9.2%	0.3%	11.6%	5.3%	0.2%

[GRI 401-1a] Hirings by gender and geographical area

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	1,548	1,415	1,310	1,131	1,081	1,236
Domestic	230	168	216	136	242	154
Brazil	1,315	1,247	1,092	994	838	1,082

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	2.6%	2.4%	2.2%	1.9%	1.7%	1.9%
Domestic	0.5%	0.3%	0.4%	0.3%	0.5%	0.3%
Brazil	13.7%	13.0%	11.4%	10.4%	7.5%	9.7%

¹ The KPI tables [GRI 401] show each percentage calculated on the basis of the average number of employees for the indicated area.

[GRI 401-1a] Distribution of Group hirings by geographical area

	2018	2017	2016	Changes (2018/2017)
Italy	374	336	378	38
Abroad	2,589	2,105	1,939	484
Total	2,963	2,441	2,317	522

	2018	2017	2016
Italy	0.8%	0.7%	0.7%
Abroad	26.3%	21.5%	16.9%
Total	5.0%	4.0%	3.6%

[GRI 401-1a] Distribution of Group employees by geographical area

	2018	2017	2016	Changes (2018/2017)
Italy	49,167	50,652	52,237	(1,485)
Abroad	9,827	9,780	11,468	47
Total	58,994	60,432	63,705	(1,438)

	2018	2017	2016
Italy	83.3%	83.8%	82.0%
Abroad	16.7%	16.2%	18.0%
Total	100%	100%	100%

[GRI 401-1b] Turnover by gender and geographical area

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	2,858	1,633	2,539	1,698	3,436	3,539
Domestic	1,609	437	1,365	425	1,424	407
Brazil	1,223	1,189	1,158	1,269	1,985	3,128

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	4.8%	2.8%	4.2%	2.8%	5.4%	5.6%
Domestic	3.3%	0.9%	2.7%	0.8%	2.7%	0.8%
Brazil	12.8%	12.4%	12.1%	13.3%	17.7%	27.9%

[GRI 401-1b] Turnover by age and geographical area

	2018			2017			2016		
	<30	>=30; <=50	>50	<30	>=30; <=50	>50	<30	>=30; <=50	<30
Group	1,251	1,518	1,722	1,428	1,434	1,375	3,138	2,268	1,569
Domestic	138	293	1615	165	328	1,297	138	283	1,410
Brazil	1,112	1,224	76	1,260	1,106	61	3,000	1,979	134

	2018			2017			2016		
	<30	>=30; <=50	>50	<30	>=30; <=50	>50	<30	>=30; <=50	<30
Group	2.1%	2.6%	2.9%	2.4%	2.4%	2.3%	4.9%	3.6%	2.5%
Domestic	0.3%	0.6%	3.3%	0.3%	0.6%	2.6%	0.3%	0.5%	2.7%
Brazil	11.6%	12.8%	0.8%	13.2%	11.6%	0.6%	26.8%	17.7%	1.2%

[GRI 401-3b] Employees who benefited from parental leave, by gender

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	191	1,129	163	1,166	201	1,370
Domestic	58	736	52	854	68	999
Brazil	132	390	110	312	132	369

[GRI 401-3c] Employees who returned after having benefited from parental leave, by gender¹

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	*	*	156	1,158	197	1,331
Domestic	*	*	52	851	67	988
Brazil	*	*	103	307	129	342

* The data will be available from the end of 2019.

[GRI 401-3d] Employees at work after a year from the end of parental leave, by gender²

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	*	*	143	1,019	143	1,117
Domestic	*	*	30	686	44	841
Brazil	*	*	113	333	98	276

* The data will be available from the end of 2019.

[GRI 401-3e] (return to work rate) Percentage of employees who returned to work after parental leave out of total employees benefiting from leave

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	*	*	95.7%	99.3%	98.0%	97.2%
Domestic	*	*	100.0%	99.6%	98.5%	98.9%
Brazil	*	*	93.6%	98.4%	97.7%	92.7%

* The data will be available from the end of 2019.

¹ 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 2017 and returned in 2018, his return is in any case reported in the 2017 column. This is why the data for the 2018 column is still partial and not yet able to be published.

² 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 2018, his continuation at work is in any case reported in the 2017 column. As we do not yet know which of the employees who went on leave in 2018 will still be at work after 12 months, we are unable to calculate the figure for 2018.

[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

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	*	*	87.7%	87.4%	71.1%	81.5%
Domestic	*	*	57.7%	80.3%	64.7%	84.2%
Brazil	*	*	102.7%	106.7%	74.2%	74.8%

* The data will be available from the end of 2019.

[GRI 403-2a] Injury rate out of total workforce* (number of injuries over hours worked)

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	6.11	4.26	6.92	4.26	7.70	3.66
Domestic	7.00	5.31	8.04	5.39	9.05	4.75
Brazil	0.64	1.15	0.48	1.07	0.43	1.21

* Temporary workers are not considered in this type of record. In any case, there were 0 temporary workers in 2018.

[GRI 403-2a] Days lost over workforce* (days of injury over working hours)

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	0.15	0.08	0.19	0.09	0.20	0.10
Domestic	0.19	0.12	0.22	0.12	0.24	0.15
Brazil	0.01	0.01	0.01	0.01	0.00	0.01

* Temporary workers are not considered in this type of record. In any case, there were 0 temporary workers in 2018.

[GRI 403-2a] Absenteeism rate out of total workforce* (total hours of absenteeism over working hours)

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	5.52	10.81	5.59	9.38	6.09	11.91
Domestic	5.71	11.01	6.47	12.00	6.58	12.69
Brazil	4.71	10.41	1.61	3.99	4.04	10.64

* The absenteeism rate is calculated taking into consideration the additional items with respect to those of the GRI 403-2 indicator. From 2016 the absenteeism rate calculation method used in Brazil was adapted to that used in the other Companies of the Group.

[GRI 403-2a] Occupational disease rate out of total workforce* (number of cases over workforce)

	2018		2017		2016	
	Man	Woman	Man	Woman	Man	Woman
Group	0.05	0.02	0.05	0.01	0.03	0.02
Domestic	0.05	0.03	0.06	0.01	0.04	0.02
Brazil	0.00	0.00	0.00	0.00	0.00	0.00

* Temporary workers are not considered in this type of record. In any case, there were 0 temporary workers in 2018.

[GRI 404-1] The following tables report training carried out in TIM S.p.A., broken down according to gender

2018	Totals	Hours Per capita	Participation*	Participants	Coverage**
Total	1,249,089	29.3	761,258	42,809	100.4 %
Senior Managers	15,473	34.2	5,772	504	111.3 %
of whom women	2,678	35.7	804	83	110.7 %
of whom men	12,795	33.9	4,968	421	111.4 %
Middle Managers	90,543	24.8	82,710	3,689	100.8 %
of whom women	24,443	23.7	22,224	1,025	99.2 %
of whom men	66,100	25.2	60,486	2,664	101.4 %
Office staff/workers	1,143,073	29.7	672,776	38,633	100.2 %
of whom women	272,187	23.0	217,144	11,774	99.6 %
of whom men	870,886	32.6	455,632	26,859	100.5 %

2017	Totals	Hours Per capita	Participation*	Participants	Coverage**
Total	1,317,426	29.8	457,785	43,372	97.9%
Senior Managers	18,933	35.5	5,887	541	101.3%
of whom women	3,420	41.7	1,051	89	108.5%
of whom men	15,513	34.3	4,836	452	100.0%
Middle Managers	74,218	20.09	38,173	3,634	98.3%
of whom women	15,651	15.4	10,042	1,001	98.7%
of whom men	58,567	21.8	28,131	2,633	98.2%
Office staff/workers	1,224,275	30.57	413,725	39,197	97.9%
of whom women	326,299	26.9	143,028	11,823	97.6%
of whom men	897,976	32.1	270,697	27,374	98.0%

2016	Totals	Hours Per capita	Participation*	Participants	Coverage**
Total	1,058,194	24.8	351,897	37,732	88.4%
Senior Managers	21,632	36.7	3,161	580	98.5%
of whom women	4,139	42.7	570	101	104.1%
of whom men	17,493	35.5	2,591	479	97.4%
Middle Managers	57,545	18.0	17,242	2,828	88.3%
of whom women	16,379	18.6	4,798	800	90.7%
of whom men	41,166	17.7	12,444	2,028	87.4%
Office staff/workers	979,017	25.2	331,494	34,324	88.3%
of whom women	264,911	22.8	113,811	9,847	84.9%
of whom men	714,106	26.2	217,683	24,477	89.7%

* Shows the overall number of participation in training sessions, in the various forms provided (classroom, online, training on the job)

** 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 (senior managers, middle managers, office workers). Coverage and per capita are calculated on the number of staff at 31/12.

[GRI 401-1] TIM S.p.A. invested 11.1 million euros in training courses in 2018, equal to a cost of 260.5 euros per head.

Focus charts are presented below by type of training referring to TIM S.p.A.

Environment 2018 TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	9,508	0.2	3,918	9.2 %
of whom women	1,323	0.1	328	2.5 %
of whom men	8,185	0.3	3,590	12.1 %
Senior Managers	17	0.0	4	0.9 %
of whom women	2	0.0	1	1.3 %
of whom men	15	0.0	3	0.8 %
Middle Managers	297	0.1	41	1.1 %
of whom women	81	0.1	6	0.6 %
of whom men	216	0.1	35	1.3 %
Office staff/workers	9,194	0.2	3,873	10.0 %
of whom women	1,240	0.1	321	2.7 %
of whom men	7,954	0.3	3,552	13.3 %

Environment 2017 TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	9,017	0.2	3,093	7.0%
of whom women	1,596	0.1	452	3.4%
of whom men	7,421	0.2	2,641	8.5%
Senior Managers	0	0.0	0	0.0%
of whom women	0	0.0	0	0.0%
of whom men	0	0.0	0	0.0%
Middle Managers	86	0.0	22	0.6%
of whom women	2	0.0	4	0.4%
of whom men	84	0.0	18	0.7%
Office staff/workers	8,931	0.2	3,071	7.7%
of whom women	1,594	0.1	448	3.7%
of whom men	7,337	0.3	2,623	9.4%

Health and Safety 2018 TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	135,850	3.2	15,232	35.7 %
of whom women	15,133	1.2	5,227	40.4 %
of whom men	120,717	4.1	10,005	33.7 %
Senior Managers	133	0.3	21	4.6 %
of whom women	10	0.1	1	1.3 %
of whom men	123	0.3	20	5.3 %
Middle Managers	3,798	1.0	613	16.8 %
of whom women	489	0.5	141	13.6 %
of whom men	3,309	1.3	472	18.0 %
Office staff/workers	131,919	3.4	14,589	37.9 %
of whom women	14,634	1.2	5,085	43.0 %
of whom men	117,285	4.4	9,513	35.6 %

Health and Safety 2017 TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	164,924	3.7	18,901	42.7%
of whom women	11,399	0.9	4,710	35.7%
of whom men	153,525	4.9	14,191	45.7%
Senior Managers	997	1.9	148	27.7%
of whom women	171	2.1	19	23.2%
of whom men	826	1.8	129	28.5%
Middle Managers	4,687	1.3	2,459	66.5%
of whom women	888	0.9	760	75.0%
of whom men	3,799	1.4	1,699	63.4%
Office staff/workers	159,240	4.0	16,294	40.7%
of whom women	10,340	0.9	3,931	32.5%
of whom men	148,900	5.3	12,363	44.2%

Anti-corruption 2018 – TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	149	0.0	229	0.5
of whom women	55	0.0	86	0.7 %
of whom men	94	0.0	143	0.5 %
Senior Managers	1	0.0	2	0.4 %
of whom women	0	0.0	0	0.0 %
of whom men	1	0.0	2	0.5 %
Middle Managers	18	0.0	25	0.7 %
of whom women	6	0.0	9	0.9 %
of whom men	12	0.0	16	0.6 %
Office staff/workers	130	0.0	202	0.5 %
of whom women	49	0.0	77	0.7 %
of whom men	81	0.0	125	0.5 %

Anti-corruption 2017 – TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	16,624	0.4	32,611	73.6%
of whom women	4,678	0.4	9,169	69.4%
of whom men	11,946	0.4	23,442	75.4%
Senior Managers	176	0.3	344	64.4%
of whom women	27	0.3	51	62.2%
of whom men	149	0.3	293	64.8%
Middle Managers	1,398	0.4	2,723	73.7%
of whom women	375	0.4	716	70.6%
of whom men	1,023	0.4	2,007	74.9%
Office staff/workers	15,050	0.4	29,544	73.8%
of whom women	4,276	0.4	8,402	69.4%
of whom men	10,774	0.4	21,142	75.7%

Human Rights 2018 – TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	3,248	0.1	759	1.8 %
of whom women	1,557	0.1	341	2.6 %
of whom men	1,691	0.1	418	1.4 %
Senior Managers	472	1.0	39	8.6 %
of whom women	57	0.8	6	8.0 %
of whom men	415	1.1	33	8.7 %
Middle Managers	578	0.2	143	3.9 %
of whom women	355	0.3	66	6.4 %
of whom men	223	0.1	77	2.9 %
Office Staff	2,198	0.7	577	1.5 %
of whom women	1,145	0.1	269	2.3 %
of whom men	1,053	0.0	308	1.2 %

Human Rights 2017 – TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	3,883	0.1	3,479	7.9%
of whom women	1,655	0.1	1,517	11.5%
of whom men	2,228	0.1	1,962	6.3%
Senior Managers	657	1.2	273	51.1%
of whom women	116	1.4	43	52.4%
of whom men	541	1.2	230	50.9%
Middle Managers	782	0.2	342	9.3%
of whom women	371	0.4	108	10.7%
of whom men	411	0.2	234	8.7%
Office Staff	2,444	0.1	2,864	7.2%
of whom women	1,168	0.1	1,366	11.3%
of whom men	1,276	0.0	1,498	5.4%

Privacy 2018 – TIM S.p.A.

	Hours	Per capita	Participants	Coverage
Total	13,371	0.3	10,402	24.4 %
of whom women	4,471	0.3	3,581	27.7 %
of whom men	8,900	0.3	6,821	22.9 %
Senior Managers	285	0.6	107	23.6 %
of whom women	51	0.7	15	20.0 %
of whom men	234	0.6	92	24.3 %
Middle Managers	2,364	0.7	1,269	34.7 %
of whom women	649	0.6	318	30.8 %
of whom men	1,715	0.7	951	36.2 %
Office Staff	10,722	0.3	9,026	23.4 %
of whom women	3,771	0.3	3,248	27.5 %
of whom men	6,951	0.3	5,778	21.6 %

[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

TIM - S.p.A.		2018	2017	2016
Senior Managers	GAS	0.90	0.88	0.93
	TAR	0.91	0.89	0.93
Middle Managers	GAS	0.95	0.96	0.95
	TAR	0.93	0.94	0.93
Office Staff	GAS	0.96	0.96	0.95
	TAR	0.96	0.95	0.95

Brazil		2018	2017	2016
Senior Managers	GAS	0.77	0.80	0.77
	TAR	0.80	0.80	0.85
Middle Managers	GAS	0.97	0.96	0.95
	TAR	0.98	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).

THE VALUE CHAIN

The Community

[GRI 103-1: Management Approach] [GRI 413] 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 digitalised services. Consistently with this objective and with its responsibilities towards the various stakeholders, including the competitors listed in the sustainability section of the 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 the Community, including the weakest members of society.

The Group looks favourably upon and, where appropriate, supports social, cultural and educational initiatives aimed at the enhancement of the individual and the improvement of their living conditions. The mission of the **Fondazione TIM** (FTIM) is to promote the culture of digital change and innovation, promoting 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 the implementation of educational projects that reinforce the concept of “enterprise without frontiers” including in the social sphere. With this spirit, in 2013 the **Instituto TIM** was founded.

MACRO AREAS OF INTERVENTION	PROJECT IDENTIFICATION	PROJECT IMPLEMENTATION
<p>The two main areas of intervention as regards investment in the community are the following:</p> <ul style="list-style-type: none"> - voluntary activities consistent with the Group’s core business, associated with the provision of ICT services and digital content; - activities aimed at the general development of the community mainly including the activities of Fondazione TIM in Italy and Instituto TIM in Brazil. 	<p>TIM identifies the projects to be implemented by the following means:</p> <ul style="list-style-type: none"> - consultation with the stakeholders and direct contact with civil society organisations; - partnership projects with stakeholders and associations; - benchmarking against other TLC operators; - involvement in industry associations; - knowledge of sector problems; - external lobbying in response to social emergencies (e.g. earthquakes). 	<p>Each project is implemented in 4 stages:</p> <ul style="list-style-type: none"> - planning; - selection; - management; - controls.

Security and management of emergencies

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

- the “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”;
- the “agreement between the crisis unit of the Ministry of Foreign Affairs and International Cooperation and the operators of electronic communication services for the provision of services which allow messages to be sent to Italians abroad in emergency situations”. In 2018, this Convention was put into place for the World Cup in Russia (14 June – 15 July), to allow SMS messages from the Ministry of Foreign Affairs to TIM customers in Russia;
- The “Convention for implementing a device to generate Missing Child Alert” launched with the Italian Ministry of the Interior, Department of Public Security;
- the “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 2018, as required by the relevant laws regarding training, in order to:

- 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, customers)

TIM took part in the following exercises:

- international Civil Protection and Defence “Neiflex” flood risk exercise, organised by the Presidency of the Council of Ministers, Department of Civil Protection, in cooperation with the Veneto and Friuli Venezia Giulia regions and other European countries;
- national Civil Defence “Stesicoro” terrorism risk exercise, organised by the Ministry of the Interior in cooperation with the Prefectures of Syracuse and Trapani.

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 member organisations 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 “I don’t take risks” campaign. The campaign organised annually by the Department of Civil Protection throughout Italy aims to strengthen the culture of risk prevention and raise awareness about safe behaviour.

In 2018, TIM ensured company representation in national and local institutional crisis units and ensured service requests were satisfied and immediately actioned within 12 hours and within the 24 hours laid down by the PCM Directive 3/12/2008 “Operating Directions for the management of emergencies”.

Relations with local communities

[GRI 103-2: Management Approach] [GRI 413] In addition to the usual relations with national institutions, as described in the sustainability section of the www.telecomitalia.com website, TIM works every day to ensure that relations with regional and local bodies are lasting and satisfactory, believing that this is the only way to create appropriate conditions for the development of its area of operation and improve people’s quality of life, while allowing the institutions and TIM to achieve their respective objectives.

A central department within TIM is dedicated entirely to managing relations with local institutions, which also relies on local authority accounts who are specialised in managing institutional relations on technical matters related to 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 Committee¹;
- 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.

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

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

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. Monitoring and constant interaction with the decision-making centres 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 organises communication initiatives on specific issues of local interest.

[GRI 413-1] Among the main subjects of dialogue with local authorities during 2018 we would highlight the following:

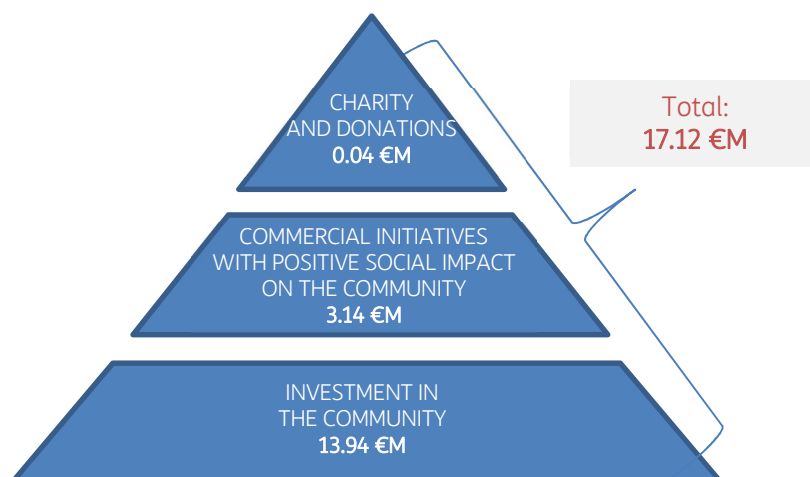
- development of new ultrabroadband networks, local coverage and reduction of the digital divide;
- actions of an institutional nature involving local administrations aimed at encouraging development of the fixed and mobile telecommunications network;
- the drawing-up of protocols with local authorities 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 standardising of the relevant national provisions;
- proposed excavation rules, in order to ensure the consistency of the authorisation process and the respective regulations with national regulations, particularly in order to ensure simplification at local level;
- promotion of digital transformation initiatives to facilitate knowledge and dissemination of new technologies by seeking forms of partnership with local public administration;
- promotion of TIM's digital solutions and services system for the creation of smart cities;
- drawing up of 20 regional policy reports aimed at taking 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 institutions, through the internal Digital Development Project amongst other means.

[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.

¹ Internal local committees involving the managers of departments with local branches.

How the contribution to the Community is measured

[GRI 103-3: Management Approach] [GRI 413] The contribution made to the community by the Group, calculated according to the London Benchmarking Group (LBG)¹ guidelines, amounted to 17 million euros in 2018. 2016 and 2017 data is available on the Group website, sustainability channel.



Initiatives consistent with the core business

Fundraising

In a national and international context in which crisis and conflict scenarios multiply, against an ever-increasing number of subjects in need and emergency situations, private fund-raising is a key factor in the cohesion and support “from person to person”.

For over 15 years, TIM has been a key player in the solidarity chain associated with humanitarian, scientific or environmental projects which it supports by allowing people to make a donation of 1 or 2 euros by sending a text message and of 2.5 or 10 euros by calling a dedicated free number from a landline.

The new Self-Regulatory Code issued by AgCOM established 60 numbers, divided into 30 permanent numbers (lasting one year) and 30 temporary numbers (lasting 20 days), with a special price list. The 2 numbers assigned to emergencies continue to be free. The amounts collected are returned in full, with no withholdings applied by either the tax authority or the Company for the costs incurred.

155 campaigns were launched in 2018, which raised over 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.

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 via the potential offered by the internet.

¹ 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 favour 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 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 graph constitutes additional information regarding the areas required by Legislative Decree 254/2016.

Digital skills are one of the key factors in allowing economies to achieve a competitive advantage over the past twenty years, as shown by much of the work carried out by the OECD or promoted by the European Commission. In this respect, the Digital Agenda asks Member States to take action to broaden knowledge of digital tools and increase the number of people with evolved digital skills, particularly by disseminating ICT technologies in schools. In this context, schools must make a radical change in the way they plan and provide education, and in the way pupils, teachers and parents relate to one another. 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 processes.

TIM has supported the **Programma il Futuro** [Programme the Future] initiative of CINI¹ in collaboration with the MIUR since 2015. This promotes the introduction of computational thinking and coding in the educational programmes of schools of all levels.

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 background degrees closer to digital tools, to give them an overview of technological applications 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 junior high school students more familiar with the key concepts of new technologies, e.g. the Internet of Things, Robotics, stimulating students' creativity and passion and transforming them from passive technology users to aware and active users. 3,000 students will be involved in the classroom during the school year, in addition to all those who following the online teaching on scuoladigitale.tim.it.

TIMsostiene is the new **crowdfunding platform** which is aimed at becoming a reference point for those who, even with a small donation, want to contribute to the good of Italy. TIMsostiene hosts the main fundraising campaigns of the most well-known non-profit sector organisations in Italy. Covering four thematic areas - Health and Research, Culture, Environment, Society - where you can discover the initiatives and their objectives and follow their results, to enable you to make conscious donations and be a part of a shared change. The entire donation amounts are given to the chosen campaign; TIM also bears the costs of any transaction fees provided by companies that offer digital payment services. The new platform follows on from the experience of WithYouWeDo, TIM's first crowdfunding portal dedicated to the initiatives of individual citizens and small associations that in its three years of activity raised about two million euros.

In addition, for some years, TIM has 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 6 to 17 each year suffering from serious illnesses free of charge. The web based radio station (radiodynamo.it) is one of the most popular activities in the Camp, and also one of the major activities of its outreach programme, Dynamo outside the Camp, which allows it to reach out to many young people all year round who, for a variety of reasons, cannot attend the Camp.

The commitment of Fondazione TIM

[GRI 103-3: Management Approach] [GRI 413] The TIM Group companies are particularly attentive to the needs of the Community in which they operate and implement wide-ranging initiatives and projects dedicated to their social and economic development. The mission of the Fondazione TIM (FTIM) is to promote the culture of digital change and innovation, promoting 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 programme 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.

¹ Consorzio Interuniversitario Nazionale per l'Informatica [National Interuniversity Consortium for Informatics].

- **Social Empowerment:** non-profit-making organisation are businesses. FTIM promotes both the better use of new technologies and improved management and efficiency to help the organisations “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.

TIM's activities 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 taken on an operational role, managing a number of projects itself.	FTIM works to disseminate a culture of innovation, in order to promote solidarity and civil, cultural and economic development. The foundation therefore undertakes to work for an increasingly digital, advanced and competitive Italy to improve living conditions for people. 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.	The selection is made based on the social impact of projects, which must be measurable, sustainable and replicable. 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.

In 2018, 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 targets to achieve, with an exponential effect in terms of the impact on our national community.

In the **Education** area the TRIS project - New technologies and home education for students unable to regularly attend school - was created through a Framework Agreement signed in 2012 by MIUR, CNR - Institute for Educational Technologies and FTIM that allowed for the trial of new socio-educational inclusion models for students unable to participate in normal educational pathways to guarantee their right to study. Remaining in the field of Education, the collaboration continued between FTIM and Accademia della Scala, which is intended to enhance and promote the work of one of Italy's centres of excellence and to innovate in the field of training, in order to hand down traditional and valuable trades; a transformation project which combines education in theatrical occupations with the most innovative technologies, supporting young talent and bringing young people closer to the opera world.

Still in the area of Education, the E-Rob project involved trials of robotics programming activities in the classroom to enhance school learning and promote cognitive and social-relational development in primary schools through the development of inclusive education for children with learning needs/disability, exploiting the flexibility of technology systems. This was a local project with the Fondazione Stella Maris of Pisa and Istituto Superiore Sant'Anna of Pisa.

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. In addition to the agreement for the restoration, another agreement was signed for the enhancement and multimedia activities, again with the municipality, but implemented directly by FTIM, which will spend 2 million euros. Work is expected to be complete by March 2019. Full details of the project can be found on the <http://www.mausoleodiaugusto.it/> website, which has received many national and international awards.

Within the **Social Empowerment** area, FTIM has been at the forefront of dyslexia care since 2009 with a multi-year programme that has enabled the creation of screening protocols, IT campuses, digital books and the dissemination of a more inclusive approach in schools. The Dyslexia 2.0 project, completed in 2018, allowed to the training and certification of 60% Italian schools as Dyslexia Friends, and the provision of a standardised screening tool free of charge and accessible to all, to identify the risk factors and avoid the diagnosis of false positives.

To strengthen the commitment to students with dyslexia, the Virtual Reality project for inclusive education is: a Living Lab coordinated by the Istituto Superiore Mario Boella. Co-designed by students, teachers and editors it allows joint exploration, trialling, testing and assessment of new approaches and solutions to help the evolution of inclusive education. And finally, at the of 2018 the Dyslexia Friends Advanced Course was launched with the Italian Dyslexia Association. The e-learning path extension aims to involve 90% of Italian schools, for a transformative impact.

Still in the Social Empowerment area, FTIM has committed itself to working with Agenda Tevere non-profit organisation on a path of sustainable growth, environmental and cultural protection, and urban and social regeneration of the Tiber River. The objective is to give the river back to the city of Rome and turn it into a shared city space.

In the **Innovation Culture** area, the Confiscati Bene 2.0 Project is a national web portal created by the Libera Association in collaboration with FTIM, founded on OpenSource technologies, for transparency and promotion of the reuse of confiscated assets. The platform's objective is to collect, create and provide free updated data on assets as well as on the "life" of assets.

In addition, Lectures and high-level lessons were given on topics related to the world of innovation by leading figures on the international cultural and scientific scene.

Instituto TIM

[GRI 103-3: Management Approach] [GRI 413] 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

TOOLS	STRATEGIC OBJECTIVES	PROJECT SELECTION AND MONITORING
<ul style="list-style-type: none"> • Partnerships with organisations, institutions and public and private entities. • Free software/open source technologies and materials. 	<ul style="list-style-type: none"> • Implementation of educational projects for the social inclusion of young people and teenagers. • Implementation of training projects to encourage daily use of the Internet and mobile phones as tools for social development and inclusion. 	<ul style="list-style-type: none"> • Projects are selected according to their relevance to the company's strategies and requirements. • 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.

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 PISA¹ in 2012, based on the results achieved in maths by its students, Brazil came 58th on a list of 65 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 involved around 25,000 students and 4,500 teachers from 29 cities.

TIM Faz Ciência (TIM Does Science)

The results achieved by Brazilian students in science are far from ideal. The PISA science test conducted in 2012 placed Brazil in 59th place on a list of 65 countries. Out of the three areas assessed - reading, maths and science - the last was the one in which Brazilian students had achieved the least satisfactory results. The project was created with the aim of providing the necessary tools for teachers to learn about the scientific disciplines more effectively. More than 300,000 students and approximately 10,000 teachers from 398 cities have been involved since the start of the project.

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 PRONATEC² on which 6 million people are currently enrolled. One of the initiatives of PRONATEC is the e-TecBrasil Network, which provides free technical and distance learning courses.

TIM Tec is a distance learning platform that uses the MOOC (Massive Open Online Courses) concept³. These courses, which are provided and made available for free on the platform, are intended for students attending high schools and 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 with about 60,000 enrolled students.

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

¹ Programme for International Student Assessment.

² Programme for Access to Technical Education and Employment.

³ Massive Open Online Courses.

Research and development

In Italy

[GRI 103-1: Management Approach] [GRI 203] Innovation understood as a research and development activity for innovative technologies and services, processes and business models represents a key factor in the company's ability to keep up with the profound transformations brought about through ICT, as well as a necessary asset acting as a driving force in this evolution in terms of its customers and the national system, helping to overcome the socio-cultural barriers that limit the opportunity to participate in the information society and enjoy its benefits.

[GRI 103-2: Management Approach] [GRI 203] 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.

In terms of role, both technological and business-based innovation are also confirmed in 2018 as the central element to the response to change in the technological, market and competitive context. In line with this, the Group has taken action in several ways:

- by continuing the action, started in 2016, to strengthen internal innovation lines, focusing laboratory activities and research groups on key aspects of the development of the fixed and mobile network towards future 5G standards and ultrabroadband, and issues concerning service platforms and new operations systems;
- by confirming the tendency towards the "Open Innovation" principle with the aim of maximising the benefits deriving from the integration of innovative contributions generated internally with external sources of innovative ideas, by opening 2 BICs - Business Innovation Centres in Italy, in Naples and Catania, in cooperation with respective global ICT partners CISCO and HUAWEI;
- by interacting with the start-up world in order to catalyse the latter's capacity for innovation through the TIM #Wcap acceleration programme and equity investments through TIM Venture. In 2018, TIM #Wcap launched a Call for Start-ups and two Calls for Partners;
- by implementing initiatives which allow for the growth of co-creation ecosystems like the IoT Open Lab, a laboratory dedicated to the development of IoT solutions based on key technologies for the Telco Operator with a view to open innovation.

[GRI 103-2: Management Approach] [GRI 203] Innovation management is overseen, with different missions, by the Innovation Technology Architectures & Innovation Department and by engineers, but involves various internal and external stakeholders of the company:

- other areas of the company involved from time to time, both as internal customers for the innovation output solution and as centres of expertise on the topic;
- traditional and digital partners, for the joint go2market of digital services;
- research centres and universities, for cooperation and joint projects. [GRI 203-1] In 2018, 18 research contracts came into effect, for a total value of 840,000 euros;
- Standardisation Bodies and Associations: TIM is still very active within the main Standardisation Bodies and Associations, with 27 memberships in 2018, for a cost of 900,000 euros. On a national, but above all international, level there is a broad circle made up of standardisation bodies (ETSI, ITU, CENELEC and 3GPP among others), associations (GSMA and NGMN to name the major ones), alliances (oneM2m and BBF), and telco open communities (ONF, OPNFV and CORD), which play a fundamental role in the evolution of the TLC industry for networks, platforms and services. Finally, there are the Ministries (Ministry of Economic Development and Ministry of Education, Universities and Research), the European Union and public authorities (e.g. CNR and local authorities) for projects funded through participation in competitive tenders, and partnership initiatives. In particular, 2018 saw the establishment of two specific Consortia: KIC U-Move, the Community for Knowledge and Innovation in urban mobility, promoted by the European Institute of Innovation and Technology (EIT), with the support of the EU, in order to promote urban mobility, and Competence Industry Manufacturing 4.0 (CIM 4.0), set up in December 2018 after the award of the Ministry of Economic Development Industry 4.0 contract, to help fast track the process to transform a considerable section of the production system at local and national level, and act as an integrated hub for the dissemination of expertise and good practices, offering training and on-site experience, in technological and industrial sectors in Piedmont and other Italian regions. The Ministry of Economic Development will fund the consortium projects over the next three years.

TIM's technological evolution is based on the CTO Technology Strategy which identifies the technological strategy in terms of guidelines, specific technologies and adoption roadmap over several years. The three-year Technological plan is the Group reference document and includes the technological evolution plans for subsidiaries. The plan sets out the main external factors that may affect company strategies (regulation, standards, suppliers, other market operators) and establishes the company entities involved, the applicable technological architecture and evolution of specific technologies, along with relative roadmaps for deployment or assessment. The qualitative and/or quantitative goals address the long term and have been given an annual framework. They are defined so that they can be objectively measured in compliance with quality standards (ISO9001) and environmental standards (ISO14001), and operational innovation processes, in the same way as TIM processes, in general, are based on Telemanagement Forum's reference standard E-Tom.

While with Huawei and Cisco, TIM has built a "joint innovation and shared success" path, with Microsoft it has signed a strategic agreement for the development of artificial intelligence, added to numerous collaborations in place among companies, both in Italy and Brazil. Artificial intelligence, with the help of Data Analytics and Big Data Advanced Analytics, is now an essential lever in digital transformation. The collaboration with Microsoft will lead to the development of innovative tools to customise products and services and enhance TIM's product offering.

[GRI 203-1] Overall, in 2018 TIM committed around 1,300 human resources to working on technological innovation and engineering activities for an overall investment of 1,165 million euros, for the S.p.A., amounting to around 8% of revenues.

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

In October 2018, the tender of the Ministry of Economic Development for the award of user rights to 694–790 MHz, 3600–3800 MHz, and 26.5–27.5 GHz band frequencies for 5G mobile telecommunications services was completed, with an overall undertaking for TIM of 2,399 million euros. Frequency rights in the 3600–3800 MHz and 26.5–27.5 GHz bands were definitively made available in January 2019, while those in the 694–790 MHz bands will be made available in July 2022.

5G allows for not only faster speeds than those possible with earlier technologies, but also a multitude of services with very different requirements, in particular in the mMTC¹ and URLLC² areas.

TIM has followed the development of 5G from 2012, actively participating in the definition of international standards as well as European consortia and projects which laid the foundations for the system and contributed to the introduction of innovative use cases and applications. In particular, TIM participated in the European Horizon 2020 METIS and METIS II projects included in the 5GPPP European initiative and in another 12 projects concerning all the main technological turning points of 5G, collaborating with the main providers of network technologies and terminals through specific MoUs.

TIM began in 2016 with a programme, known as 5G for Italy, to build an ecosystem of partners, together with which it develops user scenarios that allow revenue streams and winning business models to be identified. In 2018, it has experimental development projects on 5G services with 14 active partners in the vertical markets of industrial automation and robotics, port logistics and smart agriculture.

In March 2018 TIM, together with Fastweb and Huawei, signed a memorandum of understanding with the municipalities of Bari and Matera: the cities will have full 5G coverage by 2019, with 10 application areas launched and over 70 use scenarios. In 2021, experimental service provision is foreseen for 1% of the population. The investment is for over 60 million euros over 4 years, and involves 52 partners (7 universities and research centres, 11 public administration bodies, 22 companies based in Apulia and Basilicata, 12 leading companies in the sector and start-ups). The application areas range from media and virtual reality (distribution and video contribution), to smart port (logistic security) and smart city (monitoring and transport); from smart agriculture (precision farming) to public safety (population safety and law enforcement support) and from healthcare 5.0 (remote diagnostics, hospital e-learning) to mobility and road safety (assisted driving and logistics).

As part of the Torino 5G project, based on the strategic agreement between TIM, Ericsson and the Municipality of Turin and other industrial partners, TIM installed the first 5G millimetre-wave antennas in the historic city centre to offer public 5G connectivity and put on a first live demo, at Palazzo Madama, of self-connected and remote-guided services on the 5G network and the new frontiers of mobile technology: from drones for environmental monitoring, automation of industry 4.0 with robot arms connected to 5G, up to immersive virtual tours in museums and applications for public safety.

¹ Massive Machine Type Communication.

² Ultra Reliable and Low Latency Communication.

In addition, the “San Marino 5G” project involves testing all 5G technologies and services until its progressive introduction throughout San Marino, with the aim of providing a new mobile infrastructure to citizens, businesses and local public administration, characterised by a remarkable transmission capacity, around 10 times higher than 4G, and able to connect a very high number of objects, well ahead of the 2020 deadline set by the European Union.

The operational activities for technological development and 5G trials are accompanied by structured technical communication ranging from publishing to promotion with events of a scientific scope. In particular, in 2018 many 5G initiatives have taken place, such as the opening of the first Innovation Hub in Rome, which is the result of the agreement signed with Qualcomm for long-term 5G and IoT ecosystems cooperation.

[\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) **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 standardised by the 3GPP and, as regards the current period, Narrow Band IoT technologies. In 2018, more than 180 companies and customers visited the Lab, and among them, around fifty construction companies agreed a partnership with TIM allowing them to use the Lab's facilities free of charge.

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

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

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

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

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

During 2018, the Group's portfolio of patents grew to include new patents filed (TIM ranks sixth as the Italian company for number of European patents filed), and was also streamlined, eliminating some patents that were no longer worth investing in, given advances in technological progress. The patenting areas relate to the whole ICT sector, with areas of excellence in the mobile sector, where TIM is one of the six leading Telcos worldwide.

Specifically, TIM's portfolio of patents included 3,285 patents held by TIM at 31 December 2018, of which 2,791 granted in 41 countries around the world and 494 published in 13 patent offices, relative to some 601 inventions.

11% of the patented inventions came from collaborations with universities and research institutes, from the beginning of collaborations in 1997 to the present day.

Participation in a Patent Pool for LTE with a patent essential for the relative standard should also be noted. The Patent Pool acquired new participants over the course of the year (bringing the current total to 19 license-holders) and granted several licenses to 42 companies.

In Brazil

[\[GRI 103-1: Management Approach\]](#) [\[GRI 203\]](#) [\[GRI 103-2: Management Approach\]](#) [\[GRI 203\]](#) The Innovation & Technology Department, headed by the CTO of TIM Participações, is responsible for Research and Development (R&D) activities. Its main responsibilities are defining the technological innovation of the network, the evolutionary needs for new technologies and devices and the architectural guidelines together with the development of strategic partnerships, so as to exploit the new business models and guarantee the evolution of the network infrastructure in line with the business strategy. The organisational structure of Innovation & Technology is currently made up of 25 people in the Networks area, including telecommunications engineers, electricians and electronics engineers, IT experts and other technicians of various origins, competences and experiences, who cover all innovative needs and provide support to R&D. In terms of infrastructure, one important result was the establishment of TIM Lab, a multi-purpose test environment focusing on innovation, which is able to guarantee the assessment of innovative services, products and technologies, certifying their functional efficiency and performance and the development of new models and configurations, consolidating the innovation flow. TIM Lab plays a strategic role in providing support for the conduct of Credibility Test, Trials and Proof of Concept (POC), for the validation of the services in collaboration with the main suppliers of technology and partners, through the sharing of knowledge and the technological infrastructures for interoperability tests, the assessment of capacity and the definition of technical requirements; in synergy with the R&D department, it facilitates innovation and promotes collaborations with universities and research institutes.

[\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) In January 2017, a new TIM Lab Innovation Centre was opened at the Corporate Executive Offices complex in Barra da Tijuca, in the state of Rio de Janeiro: a building with a surface area of 650 square meters, able to accommodate more than 60 people. This new office hosts technicians and researchers and can be seen as a space of innovation open to new opportunities and the development of innovation for the Brazilian telecommunications market, also operating as a national reference point for R&D activities.

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

The Innovation & Technology 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 groups:

- New generation networks
- Positive environmental and social impacts
- 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 bandwidths from 2G/3G to 4G, gives TIM Participações three important competitive advantages:

- reduction of costs for LTE deployment;
- expansion of the LTE coverage area and activation of the Carrier Aggregation strategy, improving the customer experience through higher “throughputs”;
- improved indoor coverage. In addition to the expansion of coverage, use of the 850/1,800/2,100 MHz bandwidths could increase the capacity in cities already covered by the LTE bandwidth at 2.6 GHz, at limited additional cost.

Another important consideration in this scenario is that over 94% of current LTE terminals are already compatible with the 1,800 MHz and 2,600 MHz bandwidths, and with the other bandwidths available; hence, implementation of the LTE multilayer is proving to be an excellent strategy that benefits from the dissemination of devices.

The deployment of the LTE 700 MHz layer will result in significant expansion of the coverage and indoor penetration, promoting the presence of LTE throughout the national territory and consolidating TIM Participações' leadership in LTE. The actual roll-out will follow the rules dictated by the EAD1 () in order to manage the spectrum cleaning and avoid interference problems with the analogue TV transmission service. 82% of the LTE devices employed by the current users of TIM Participações services are enabled for the 700 MHz bandwidth.

At the end of 2018, over 1,426 cities could test the LTE 700 MHz coverage.

In 2015, as part of the IP Multimedia Network Evolution, three tests were carried out at the Innovation Lab to assess the IMS2. In 2016, the tests were extended to live networks, allowing TIM Participações to set up the functional infrastructure to provide services such as Voice over LTE, Video over LTE and Wi-Fi Calling, entirely laid on IP and activated by an IMS platform. In 2017, TIM launched VoLTE high definition voice call services on the market, providing call services without the need to pass through switched lines. At the end of 2018, over 2,522 cities could use this service.

[\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) **Projects with positive social and environmental impacts**

The expansion of "4G RAN sharing", in partnership with other Brazilian mobile operators, aims to define the architectural requirements, technical assumptions and specifications for the "LTE RAN sharing" solution, optimizing the network resources and costs. In this regard, TIM has pursued and considered RAN Sharing Solutions since 2007. Another strong motivation lies in coverage issues and timing in compliance with regulatory requirements. The RAN Sharing agreement allows TIM to promote the evolution of LTE development in rural areas of Brazil, with effective sharing of access and backhauling. At present 4G RAN Sharing relies on two national partners, improving the possible benefits and efficiencies of this technical model.

Following continuous testing activities, savings and energy efficiency solutions were introduced, which primarily concern the low traffic periods for the 2G, 3G and 4G access layers. The energy consumption recorded for the site, dependent on the access technology and coverage conditions, showed a reduction of up to 10%.

According to TIM Participações, the large-scale introduction of IoT could drastically change the mobile market in that it exploits the creation of services and represents a potential tool for agricultural applications, connected vehicles, tracking solutions, and social and healthcare support. In 2017 TIM invested in TIM Lab and in the E2E sector, improving existing smart parking applications and activating the connection of new applications, preparing the terrain for future NB-IoT and LTE-M commercial networks, which were launched in 2018 in the city of Santa Rita do Sapucaí.

From 2018, together with Nokia and BRDigital, TIM Participações offers connectivity to rural areas, both enabling commercial applications in agribusiness and allowing digital inclusion for sector employees and residents of small towns.

[\[GRI 103-3: Management Approach\]](#) [\[GRI 203\]](#) **Open Lab initiative**

In 2017 TIM Participações joined the Telecom Infra Project (TIP), an initiative founded by Facebook, SK Telecom, Deutsche Telekom, Nokia, Intel and other companies, which aims to identify new approaches to the creation and deployment of telecommunications network infrastructure. TIM Participações has transformed TIM Lab into the first TIP Community Lab in Latin America, which will be used by TIP members to create universal standards relating to solutions, initially for transport networks, in order to overcome the challenges linked to the interoperability of the different providers. This initiative represents an open and collaborative approach to the development and testing of new technologies and solutions.

Moreover, in October 2018, TIM joined up with a new work team in the Telecom Infra Project (TIP) together with Vodafone and other mobile operators, called DCSG (Disaggregated Cell Site Gateway). This project is an opportunity to define a common set of requirements to produce devices that are more flexible and cost-effective.

¹ Entidade Administradora de Processo de Redistribuição e Digitalização de Canais de TV e RTV.

² SMI: IP Multimedia Subsystem, solutions focused on functional tests, specific analyses and interoperability with the so-called "legacy system".

Digital inclusion

[GRI 103-1: Management Approach] [GRI 203] The 2018 materiality analysis confirmed geographical and social digital inclusion in Italy and Brazil as a material topic. Amongst other things, the ICT sector offers both potential to allow everyone to participate in social and economic life and solutions for a more liveable future, saving time and natural resources¹.

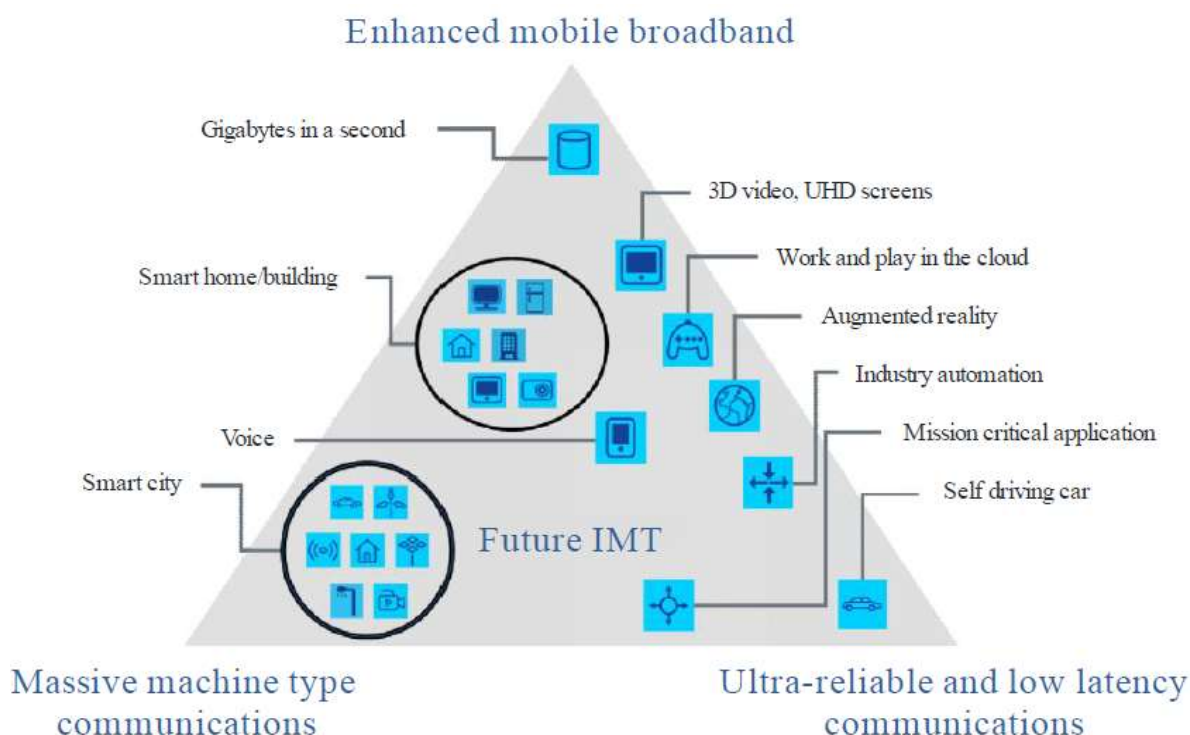
Geographical digital inclusion

[GRI 103-2: Management Approach] [GRI 203-1] [GRI 203-2] **5G technology**²

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 society³.

According to the ITU-R IMT.2083 (IMT Vision) Recommendation⁴ of 2015, the 5G system includes a number of business scenarios that can be grouped into three main macro-categories (each characterised by different requirements) summarised in the following figure (scenarios for IMT use for 2020 and beyond).



The use scenarios are:

- *Enhanced Mobile Broadband (eMBB)*, for video transmission and Gbps5 communication (enabling *Augmented/Virtual Reality*);

¹ According to "McKinsey Global Institute 2018/smart cities: digital solutions for a more liveable future" it also produces less waste.

² Acronym for fifth generation mobile technology and standards.

³ 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.

⁴ *International Telecommunication Union-Radiocommunication Sector, International Mobile Telecommunications*.

⁵ *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 vertical¹ markets - *self-driving cars energy management*, robotics - and *mission critical*;
- *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 characterised by:

- sensors available, at competitive costs, able to translate 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 and saving energy;
 - *infotainment*² connectivity, where large volumes of data can be transmitted on the move (e.g. GPS³, 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.

5G system implementation must be done in compliance with energy efficiency constraints (measured in *bit/Joule*) where, 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.

¹ 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.

² A word derived from English merging *information* and *entertainment*. *Car infotainment* is the set of multimedia functions used by the car.

³ *Global Positioning System*.

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

Starting from 2012, TIM has been developing its ultrabroadband¹ network with the aim of bringing high speed connectivity services with fibre optics to most of the Italian territory and contribute to the economic growth of the country.

The coverage objectives for 2021, in Italy and in Brazil, are published in the Group's business plan, available on the website at the following link, from slide 20:

telecomitalia.com/content/dam/telecomitalia/en/archive/documents/investors/Presentations/Investor_Relations/2019/FY18-Results-and-2019-21%20Plan.pdf

TIM chose to implement two different NGAN network architectures for the supply of high speed services with fibre 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 eVDSL² 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 GPON³ 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.



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 2018, TIM implemented a programme of investments allowing ADSL coverage (gross⁴ coverage > 70%) to be provided for 7,672 municipalities in total⁵.

[GRI 103-3: Management Approach] [GRI 203-1] As of December 2018, TIM, in Italy, had activated the ADSL service in around 9,690 exchanges, including 8,500 with optic fibre carriers. Alongside its plan to extend coverage, TIM has launched an additional plan to expand the active network⁶, where necessary, to guarantee full usability of the service by customers and the development of digital inclusion.

¹ Also known as NGAN, Next Access Generation Network.

² Enhanced Very High-speed Digital Subscriber Line.

³ Gigabit Passive Optical Network.

⁴ 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.).

⁵ The decrease - compared to the data reported in the 2017 TIM Sustainability Report (7,705 municipalities in total) - is due to the numerous mergers following the change in the municipality registry in Italy, which reduced the number of total reference municipalities (8003 in 2017 and 7960 in 2018).

⁶ 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	2018	2017	2016
LTE Coverage (*)	99	>97.5	>96
Next Generation Plan coverage (fixed telephony) FTTX (**)	79.8	77.0	58.9
of which FTTH	14.2	9.2	3.9

(*) The percentage refers to the residential population. Coverage values are subject to change based on ISTAT and urbanisation updates.

(**) 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 fibres (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 203-1] [GRI 203-2] At the end of December 2018, TIM's FTTX ultrabroadband network covered around:

- 2,680 municipalities, with FTTC fibre technology service;
- 120 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 2021, are shown in the following table.

Indicator	Unit of measurement	Target 2021
Next Generation Plan coverage (fixed telephony) FTTC	%	81
Next Generation Plan coverage (fixed telephony) FTTH	%	22

[GRI 103-1: Management Approach] [GRI 203] A focus on innovation and investments in new infrastructure and technologies also characterises TIM's action in **Brazil**, a country where the Group has been operating since 1997 through its subsidiary TIM Participações and which is the Group's second biggest market. Its presence in Brazil has been increasing in recent years thanks to strategic acquisitions: the Intelig and AEM Atimus fixed network infrastructure has allowed the Group to strengthen the backbones and connecting links of the mobile network radio base stations through the use of fibre-optic cables which, in view of the development of LTE networks, are even more important and strategic.

[GRI 103-2: Management Approach] [GRI 203-1] TIM has invested nearly 7 billion euros in **Brazil** over the last 5 years, with a focus mainly on new generation infrastructure construction and actively contributing to the modernisation of the country.

Following the acquisition in 2014 of the right to use the 700 MHz bandwidth (with an expenditure of 936 million euros), in 2018 TIM Participações continued to invest in strengthening the infrastructure of the 3G network and achieved leadership in 4G, in terms of both the number of cities covered (3,272 in December 2018) and coverage related to the urban population (93% in December 2018).

[GRI 203-1] In Latin America, ever since it was introduced, mobile telephony has played a key role in the process of integrating more disadvantaged people, contributing to cohesion and to involvement in social and democratic life. TIM Participações manages almost 55.9 million mobile lines (December 2018) and has always played a major role in this context. Work in the past to extend the mobile network coverage to the whole country continues with some important development axes, such as the expansion of the fibre optic network, the intensification of sites, the reassignment of frequencies and the distribution of VoLTE¹.

[GRI 203-2] TIM Participações is distinguished by social inclusion projects like the *Broadband Implementation Project for Rural Market Failure Areas*² (Brazilian National Telecommunications Agency Obligation³), which brings fibre optics to certain municipalities of rural areas previously not served by the market. However, the availability of infrastructure is only one of the ingredients and has to work together with an overall digital growth of the population in a literacy development process that produces an increase in demand and stimulates investment. In this context, the project has reached 800 municipalities and 4,138 schools.

The aim is to encourage and spread the use and distribution of goods and ICT services to the remotest areas, as well as making services more accessible for all segments of the population, contributing to the reduction of economic and social inequalities.

[GRI 103-2: Management Approach] [GRI 203] [GRI 203-1] [GRI 203-2] Targets to increase geographical digital inclusion to foster leadership in 4G coverage which has improved features and enable rapid migration of 2G and 3G to 4G. TIM Participações also has targets for fibre development, although very selective, as shown in the following table.

Brazil 2021 Targets –Geographic Digital Inclusion⁴

Indicator	Final figures 2018	Target 2021
FTTH (millions of families)	1.1	>4

Digital inclusion in society

[GRI 103-2: Management Approach] [GRI 203-2] The commitments of TIM 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 customers⁵. 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;

¹ VoLTE (Voice over LTE) is a technology that allows you to make voice calls on the LTE (4G) network.

² Broadband implementation project for areas of rural market failure.

³ On the mandate of ANATEL (Brazilian National Agency for Telecommunications).

⁴ Furthermore, the target for 4G coverage at the end of 2020 has also been set: > 4,200 cities (96% of the urban population) with a final figure in 2018 of 3,272 cities (93% of the urban population).

⁵ [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 14 January 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; tim.it/agevolazioni-per-non-vedenti-e-non-udenti/offerte-mobile.

- people on low incomes who find themselves in a situation of “economic and social hardship”. TIM reserves such concessions - established by AGCom¹ or by the Company on its own initiative² - for customers with an ISEE³ family unit income not exceeding 8,112.23 €/year, for telephone use service in their primary residence (on the traditional RTG network⁴). 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 one⁵.

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.

[GRI 103-2: Management Approach] [GRI 203-1] [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* ⁶No. 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 (data *download* at 256 kbps and *upload* at 128 kbps); from January 2018, download speed is 1 mbps and upload 256 kbps and, in December 2018, the project was 97.5% implemented. Further information is available at the link: anatel.gov.br/consumidor/telefonica-fixa/atendimento-rural

¹ 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).

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

³ Indicator of the *Equivalent Economic Situation*.

⁴ General Telephone Network.

⁵ Customers holding *social cards*, in compliance with the Ministry of the Economy and Finance Decree of 16 September 2008.

⁶ Offers on annotations.

Customers

[GRI 103-1: Management Approach] [GRI 102-43] [GRI 102-44] The 2018 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 Group's objective is to ensure an immediate and competent response to customer needs, standardising its conduct in relation to fairness, transparency in relationships and contractual commitments, courtesy and collaboration, with customer centrality as the logic and in full compliance with the principles established by company policies and procedures. In this context, collaborative activity with consumer associations is also promoted through the specific agreements on the matter.

Customer satisfaction

[GRI 103-2: Management Approach] [GRI 102-43] The nature of the telecommunications market is increasingly marked by great competitiveness and digitalisation 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*¹, 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 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 2018 results of the CSI confirmed the high levels recorded in 2017 (74.48 in 2018, -1% compared to 2017)². In particular, TIM consumer mobile achieved an excellent result, gaining and maintaining market leadership. 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)³.

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] In Brazil, in 2018 TIM Participações confirmed significant commitment to investment in the development of the digital environment, to improve the quality of services offered to its customers. It further improved the "My TIM App" channel which, in October 2018, had 7.52 million users and 44 million

¹ 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.

² For consumer customers, the CSI was 75.53 in 2016 and 75.26 in 2017.

³ 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".

accesses per month. The customer base for “My TIM App” has reached the following levels, in relation to the customer base using smartphones and data management in the last three months:

- pre-paid: 18.0%
- check¹: 33.3%
- post-paid: 40.8%.

The My TIM App evolution process has continued, focused on improving performance and enriching the service portfolio, as highlighted by the following initiatives:

- platforms: continuous workgroup improvement for problem solving, integrated vision and follow-up;
- sales: “My TIM App” has started to contribute to sales (25% of migration to digital);
- “My TIM Website”: migration to the new version that allows reactive behaviour. The process began with prepaid customers in 2017 and extended to all other sectors in 2018;
- “My TIM App”: continuous improvements in usability and introduction of new functions. Structured planning of activities to spread the app.

[GRI 103-3: Management Approach] [GRI 102-43] TIM Participações also communicates with its customers through Twitter and Facebook. In December 2018, “@TIMBrasil” (twitter.com/TIMBrasiles) had around 756,000 followers and on Facebook (facebook.com/timParticipações) around 2,818,000 likes. In 2012, TIM Participações also activated a further channel “@TIM_AJUDA” (https://twitter.com/TIM_AJUDA), which allows it to communicate with customers via Twitter; In December 2018, this account had 276,000 followers and 218,000 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 regarding TIM and its competitors’ consumer customers is conducted on a “reflective” basis – monthly from June 2017, with data consolidation every quarter – and measures the customers’ general perception of the Company and its touch points. The survey method changed from 2017, shifting from telephone interviews to an *online panel*, thereby reducing the number of participants²;
- the *Call Centre Satisfaction Survey*, carried out once a month “cold” through telephone interviews, involving its mobile customers who have contacted the call centre in the last fifteen days. Since June 18 this survey has reduced the sample size and target audience, now considering only *back-office post*³ and *back-office control* cases;
- the transactional type *Call Centre Survey*, established in 2017 and partially replacing the survey conducted through telephone interviews, according to which TIM Participações sends its mobile phone customers (prepaid, postpaid, control and business) an SMS to invite them to evaluate the call centre within 30 minutes of the “contact”.

TIM Participações survey type	2018	2017	2016
Consumer customer ^(*)	7.08	6.95	7.30
Consumer mobile telephone call centre ^(**)	7.05	7.81	7.31
Business mobile telephone call centre ^(***)	6.95	7.03	6.81
Consumer mobile telephone transactional call centre ^(****)	6.15	5.84	N/A
Business mobile telephone transactional call centre ^(****)	6.17	5.56	N/A

(*) 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.

¹ A service package offered by TIM, which has the main characteristics of a fixed monthly amount.

² It involved a group of selected participants who agreed to provide information at set intervals for a long period of time.

³ Basically, the *back office* is everything that the customer does not see (e.g. administrative services), but which allows the services intended for them to be provided.

[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 digitisation and innovation, also offering new *digital caring* channels to the customers' advantage, who receive personalised and quick answers that improve *customer experience*, loyalty and *engagement*.

From July 2018, through the *Instant Messaging* channel in the new version of the TIMpersonal app, fixed and mobile consumer customers have the opportunity to interact with customer service in a *smart* way; from November 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 is 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). WhatsApp assistance will be progressively rolled out to other services, for example sending invoices, notification of payment deadlines and many courtesy activities.

At 31 December 2018, TIM's *social caring* team managed 1,177K *caring* interactions on the Facebook page and 226K on Twitter; in particular, the customer *care* demand amounted to 807K for mobile and 596K for landline.

On the same date, there were 138K conversations on the TimPersonal *Instant Messaging* channel and 4.5K on WhatsApp. 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 third and fourth quarter of 2018, 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 and eighth in world brands, in terms of social channel response time and rate (AMIQ¹ 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 3.7 million *followers*.

¹ Answered Minus Ignored Questions.

[GRI 102-43] [GRI 102-44] **Involvement of call centre operators**

In 2018, the activities involving call centre 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, the results of which allow planning for 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 on the most important topics (for example: fixed delivery process);
- the increase of information sent by email to customers, in support of contact with them.

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 2018, hearing impaired customers could use the PEDIUS service, which allows access to TIM's *call centres*, in addition to the usual channels. The trial phase was launched in September 2014 and the service:

- 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. More details are available in the TIM People chapter of this report.

Conciliation procedures

[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 recognised “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 2018 there were 22 consumer associations that had 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 the consumer/user in the market.

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:

- recognised as an “ADR Body” possessing the requisites of stability, efficiency and impartiality required by the regulatory framework;
- registered on the list of recognised ADR Bodies, established by the AGCom (Italian Communications Authority) on 30 June 2017.

The basis for the dissemination and success of the conciliation procedure is:

- it is a free model;
- 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 information 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, defined as unitary because it is a common basis of the various regulations also applied by other telephony operators (Vodafone, WindTre, Fastweb), contains the common procedures and regulations to be applied for general harmonisation and rationalisation, including from a consumer-user perspective. The ADR Body, established in compliance with the provisions of Art. 141 ter of the Consumer Code, is established at the TIM headquarters.

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 organisational model successfully applied for joint conciliations. In this way, customers can choose to use the consumer associations or follow alternative paths through Co.Re.Com to settle any disputes with the Company out of court.

The decision to abolish the Chambers of Commerce conciliatory channel - also taken in light of the AGCom Resolution 203/18/CONS “Approval of the regulation on the procedures for resolving disputes between users and electronic communications operators” which, from July 2018, introduced the new “ConciliaWeb” conciliation management system developed by the Authority (which has made it easier for customers to apply for and manage conciliation on-line) and the now fully operational ADR TIM/Consumer Associations body - is essentially linked to three reasons:

- the CCIAA channel has become secondary (fewer than 1,000 cases per year throughout the country) to other conciliation channels (Co.Re.Com and ADR TIM-Consumer Association), also recording the lowest conciliation rates out of the three channels;

- the CCIAA channel is the only one that operates on a fee basis requiring, for the conciliation process, a contribution (not insignificant) to the chamber of commerce, instantly and at the expense of the operator;
- there are currently just over twenty CCIAAs in operation and for a number of years TIM has been the only operator on the market who agrees to take part in Chambers of Commerce conciliations.

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 2018 the use of the Co.Re.Com channel continued to see significant figures, accounting for 68.5% of the conciliations discussed, while the Joint channel accounted for 30.6% of the requests discussed, with the Chamber of Commerce channel making up the remaining 0.9%.

The positive trend seen in the conciliation system in previous years continued in 2018 (albeit with a significant increase in the number of cases handled); in fact:

- 97% of the requests for joint conciliation (16,438 out of 16,928) were reconciled, a percentage that is stable year on year despite the 25.5% increase in the cases discussed in 2018 with respect to the previous year (14,302 in 2017);
- 84.9% of the requests discussed at the Co.Re.Com and Chambers of Commerce were reconciled (35,293 reconciled out of 41,554 discussed). This percentage remained high in 2018, and was even higher than the previous year, also considering the 14.4% increase in the cases discussed compared to 2017 (36,313 in 2017).

[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 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, which is considered to be a quick and economical way of resolving disputes;
- economic crisis, which leads people to resort to conciliation even for small amounts (e.g. potential inefficiencies involved in transferring from one operator to another);
- large number of Co.Re.Com, which are opening provincial offices in many regions to make the conciliation system more easily available to people (avoiding the costs involved in travelling to regional capitals).

[GRI 103-2: Management Approach] [GRI 102-43] [GRI 102-44] In Brazil TIM Participações has close relations with the Agencies that make up 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, such as SENACON¹ and PROCONS²; TIM Participações also participates in the Conciliation Forum, which promotes dialogue between companies and consumer protection agencies, with the aim of resolving disputes, managing workshops with consumer protection authorities with the participation of company employees and taking part in external events to improve the quality of service offered to its customers.

TIM Participações is the operator with the lowest 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 web platform for conflict mediation, which facilitates the resolution of customer complaints and simplifies PROCONS work. 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 2018,

¹ National Secretariat for Consumer Protection.

² Consumer Protection Programme.

the average customer satisfaction score of TIM Participações, who used the aforementioned platform service, was 3.9 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 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 Defence departments of 23 State capitals; in 2019, the objective is 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 - taught customers how to download the Consumidor.Gov.br application on their smartphones. This activity, aimed at direct reconciliation between the customer and company, has already been implemented in six states and in 2019 the objective is to roll it out in six other states;
- held training courses for PROCONS employees and Public Defenders, about TIM Participações services (invoicing, credit top-up, plans) to reduce the number of complaints. In particular, in the north-eastern region, PROCONS employees have begun to promote the *Meu TIM* application to avoid the complaints linked to easy-to-solve procedures;
- in relation to information accessibility, it has continued to disseminate the Consumer Protection Code both in Braille and in Brazilian sign language (Libras), through its website and during events in which it participated;
- launched the information guide for telecommunication services users in a digital version and in Braille and promoted the installation of the Giulia application, which provides accessibility for the deaf. Consumer protection agencies and other public sector agencies have recognised this latter application as a form of social action;
- has made the service available to the Public Defence departments of 23 state capitals and the objective of 2019 is to roll it out to the country's main cities with a Consumer Protection Department within the Public Defence Office (in 2017 the Users' Council, together with the Public Defender Department, created a new conciliation channel - called "Canal 0800 Defensoria Publica" - to avoid cases in court, opening a direct line of communication between the Public Defenders and TIM Participações).

In 2018 the National Forum of Users' Councils was held, 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. TIM received positive feedback from ANATEL, which:

- gave advance notice of TIM's participation in most of the proposals (TIM was the company with the highest percentage of proposal participation, 90.48%);
- observed that "TIM's Users' Council is differentiated and fully functional".

At the end of 2018, at its headquarters in Rio de Janeiro, TIM held the 3rd National Forum of TIM's Users' Councils, which was attended by members of the five regional councils, including PROCON, Public Defenders, public authorities, academics, ANATEL and consumer protection agencies representatives, as well as employees from TIM's various sectors. During the meeting, among other things, it emerged that the Company and its employees were completely committed to satisfying customers through all service channels.

[GRI 103-3: Management Approach] [GRI 102 -43] [GRI 102-44] In 2018, 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 31 December 2018 for the main activities and/or company are shown below:

- quality of products and services offered: UNI EN ISO 9001 standard;
- environmental protection: UNI EN ISO 14001 standard;
- efficient energy management: standard ISO 50001;
- health and safety at work: BS OHSAS 18001 standard;
- general requirements for the competence of testing and calibration laboratories: ISO/IEC 17025 standard;
- Information Technology services: ISO/IEC 20000-1 standard;
- information security: ISO/IEC 27001 standard;
- information security risk management¹: ISO/IEC 27005;
- the ability of a *data centre* to guarantee continuity of the services provided: ANSI/TIA regulation 2-942;
- security for credit and debit card transactions and cardholders protection from improper use of personal information: PCI/DSS standard³;
- software and IT solution production processes: CMMI-DEV4 certifications;
- fulfilment of the AGID (Digital Italy Agency) requirements to perform the role of:
- Accredited Operator for Certified Email;
- Accredited Custodian for storing electronic documents;
- Accredited digital identity manager for SPID services (public service manager);
- *Qualified Trusted Service Provider*⁵ for Timestamping in accordance with eIDAS regulations (EU Regulation 910/2014).

In **Brazil**, as required by ANATEL (National Telecommunications Agency, the Brazilian telecommunications authority), *KPI Survey Method Quality*⁶ Certificates were also achieved for the whole Country regarding:

- *personal mobile service* (TIM Cellular);
- *switched fixed telephone service* (TIM Celular and Intelig);
- *multimedia communications services* (TIM Celular).

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 website.

Child protection

[GRI 103-1: Management Approach] [GRI 102-2b] The 2018 materiality analysis highlighted - for the TIM Group - the online protection of children (cyberbullying, child pornography, gambling), 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. The TIM card, once activated, is enabled to use value added services with adult content, excluding TIM cards registered in the name of a minor for whom adult content services are disabled.

¹ Supporting the information security management system requirements (ISMS) according to ISO/IEC 27001.

² American National Standards Institute/ Telecommunications Industry Association.

³ Payment Card Industry Data Security Standard.

⁴ Capability Maturity Model Integration - Development.

⁵ Qualified supplier of services.

⁶ Quality indicators for the survey method.

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). Protection tools currently available to customers include:

- 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, from Customer Services on 119 and from authorised 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 behaviour that is judged to be dangerous, allows you to block access to sites or apps or limit their use (maximum usage time setting);
- *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, malware¹ 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-marketing² 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 2018, 154,436 customers had activated TIM Protect.

TIM is constantly looking for ways to develop its offer portfolio to meet customer needs; among other things, from May 2018 payment for the service takes place on an annual rather than monthly basis.

TIM also wants to help customers to make the best use of the TIM Protect service and, in October 2018, it made a freephone number 800 500 500 available (three months trial); 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.

[\[GRI 103-2: Management Approach\]](#) [\[GRI 102-2b\]](#) In terms of tackling online child pornography and computer crime, from an organisational perspective, TIM has established – within the Security Department and, specifically, as part of the Security Operations Centre – the role of “Key Contact for the Postal Police”.

This person manages relations, and the flow of information, with the Postal Police³ 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 organisational and management model pursuant to Legislative Decree 231/2001, aimed at preventing offences that may result in liability for the Company.

¹ 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*.

² Commercial agreement between companies that have the same objective, are not in direct competition and decide to coordinate their marketing activities.

³ CNCPO -National Centre for the Fight against Online Child Pornography, CNAIPIC – National Centre against Digital Crime for the Protection of Critical Infrastructure.

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 SOC¹ 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 Centre*, 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;
- *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.

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 Centre* (SIC) – Connected Generations (national centre 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 2018 TIM maintained the *Navigare Sicuri* (safe surfing) application;
- “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.

¹ Security Operations Centre.

Product responsibility

[GRI 103-1: Management Approach] [GRI 416] [GRI 417] [GRI 419] The 2018 materiality analysis confirmed service 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 users¹, and it does not produce the telecommunications equipment it sells².

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 (telephones, modems, etc.), both in Italy and in the production centres of manufacturers overseas;
- laboratories that test the products marketed by the Group, particularly as regards the electromagnetic emissions of the mobile³ devices.

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.

[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 Directive RED 2014/53/EU and EMC 2014/30/EU, divided by product macro-family⁴.

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 and EN 60065.

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);
- the functionality under various environmental conditions of terminal installation and use and 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 (which replaces the previous Directive 2004/108/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 network equipment to determine whether they comply with the requirements

¹ Threats of a psychological, security and privacy nature are dealt with in the paragraphs Protection of Minors, E-security, Privacy.

² At Olivetti, the Group company operating in the *digital solutions* and IT sector, there are hardware production plants; in the context of the Group as a whole, these activities are not significant as the entire 2018 revenues of Olivetti amount to 0.82% of the TIM Group.

³ In 2018, 13 fixed network devices, 12 mobile network devices and 2 network products were checked in TIM laboratories.

⁴ *Electro Magnetic Compatibility*.

⁵ For “Corded terminals”, the following standards may be applied: EN 55022 and EN 55024, EN 55032, EN 55035, EN 60950 and EN62368-1; for “Cordless terminals”, 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.

of international ETSI, CENELEC¹ 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-T² Recommendations) and mechanical robustness (in compliance with the installation classes required by the European standard ETSI EN 300019) requirements, to contribute to the reduction of the original WEEE. 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. 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 and therefore results in apparatus which can be repaired with the replacement of a few components (by repair centres).

[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 customisation, the Company simply requires national legislation to be complied with.

[GRI 417-1] In **Brazil** TIM Participações, in addition to compliance with national legislation, requires information on the correct use of equipment; TIM Participações does not have the procedures on the information and labels on products and services. 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 and the accessory kit and 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).

¹ European Committee for Electrotechnical Standardization.

² International Telecommunication Union - Telecommunication Standardization Sector.

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; in TIM Participações in 2018, 3 incidents occurred for which ANATEL issued total penalties of 397,009 reais, in 2017 there were 13 incidents for a total of 896,730 reais (in respect of the guarantees and rights to protect users) and in 2016 there were 3 incidents for total penalties of 236,331 reais.

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 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 Competition and Market Authority (AGCM) – for non-compliance with laws and regulations concerning the supply and the use of products and services in Italy.

Description	2018 ¹	2017 ²	2016 ³
Number of fines for non-conformities regarding the supply and use of products and services	3	3	1
Total monetary value of these fines (in euros)	6,600,000	2,350,000	410,000

[GRI 419-1] Number and value total cash in fines - by AGCom (National Regulatory Authority for Communications) - for non compliance with laws and regulations concerning the supply and the use of products and services in Italy.

Description	2018 ⁴	2017 ⁵	2016 ⁶
Number of fines for non-conformities regarding the supply and use of products and services	10	3	3
Total monetary value of these fines (in euros)	4,027,000	1,422,000	2,480,000

¹ 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 ml (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 ml (unfair commercial practices in recovery actions).

² 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 10246 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.

³ In 2016 AGCM opened four proceedings against TIM, two of which archived after appeal (one on the TIM Prime offer and one on internet sales), one ended with a fine of 410,000 euros (distance contracts) and one ended in 2017.

⁴ 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 with 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).

⁵ 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.

⁶ In 2016, AGCom started two cases, one of which closed with archiving (non-compliance with temporary measures) and one which ended in 2017 (fine of 232,000 euros). AGCom has also concluded three proceedings started against TIM in 2015 with fine (2,000,000 euros for manoeuvre that introduced flat prices, 120,000 euros for breach of legislation on migrations and 360,000 euros for violations of legislation on quality).

[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**¹, imposed by ANATEL.

Description	2018	2017	2016
Number of fines for non-conformities regarding the supply and use of products and services	9	4	2
Total monetary value of these fines (in reais)	180,123	2,467,722	274,698

[GRI 417-3] Overall number of nonconformities with legislation and voluntary codes regarding marketing communications in Italy.

Type of non-conformity	2018	2017	2016
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	1	0	0
Number of non-conformities with voluntary codes ²	2	1	4

[GRI 417-3] In **Brazil** the only notifications relating to advertising and marketing communications are issued by CONAR³, a non-governmental self-regulation organisation for advertising which assesses non-conformities with the Brazilian Advertising Self-Regulation Code (“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 also if the violation of the Code of Ethics has not been demonstrated.

In 2018, TIM Participações received only one notification from CONAR, for a case brought by a customer, to which it responded with a unanimously accepted defence. The company received three notifications in 2017 and two in 2016.

ANATEL can impose fines or warnings in the event of non-compliant “general marketing communications”. In 2018, Anatel imposed a fine on TIM Participações of 280,984 reais and one in 2017 of 70,471 reais (both relating to unclear Company commercial information); no fines were imposed in 2016. The two fines above are pending a final decision.

¹ The cases include the supply of unsolicited services, failure to comply with established quality targets, unforeseen interruptions to the service, coverage by means and at times other than those established with the authority and service and billing irregularities.

² 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. The decisions of the Board never result in pecuniary sanctions but, where appropriate, in a termination order for the disputed press release.

³ Conselho Nacional de Autoregulação Publicitária.

Safeguarding privacy and personal data protection

[GRI 103-1: Management Approach] [GRI 418] The 2018 materiality analysis confirmed 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 organisational 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 Department* was established at TIM Group level, dealing with control, consultation, training and information regarding the application of *privacy* legislation.

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” is particularly important; it defines the provisions and operating instructions to comply with these provisions, completely reviewed and updated in 2018, to incorporate amendments to the law.

From 25 May 2018, Regulation (EU) No. 2016/679, concerning the protection of individuals with regard to the processing of personal data (“*General Data Protection Regulation*” or GDPR), includes various updates on the previous legislation on the matter, such as:

- harmonisation of legislation, with common rules directly applicable across the EU;
- applicability also to non-EU parties that process the data of people in the EU for the purposes of sales or monitoring of their behaviour;
- the level of significance of the obligations in relation to the privacy and accountability risk of entities that process data (e.g. provisions on the *privacy impact assessment*, documentation of processing, security and *data breach*¹ measures, and the introduction of the role of *Data Protection Officer*);
- strengthening rights exercisable by individuals (e.g. customers, employees), such as the new rights to be forgotten and to personal data portability;
- economic significance of the sanctions applicable in case of violation.

The GDPR has become the primary source of the applicable regulatory framework 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.

To ensure - within the Group Companies - conformity of personal data processing with the GDPR, TIM carried out the activities envisaged in the adjustment plan by the 25 May 2018 deadline, which was implemented by almost all departments of TIM and the Group Companies in about 18 months. Specifically, the actions have included:

- the appointment of the *Data Protection Officer* and activation of related touch points for data subjects for matters relating to the processing of their personal data;
- the appointment of internal Privacy Officers, employees with specific duties and instructions to assist the Company’s senior management in implementing the obligations;
- the updating or issue of numerous policies and procedures, including those that define obligations relating to *data breach* (extended to all types of personal data), *privacy impact assessment* (for the processing of high privacy risk personal data), customer profiling, management of data subject requests concerning the exercise of their rights;
- updating of the TIM compliance catalogue to render it compliant with the requirements of the processing activity register;
- the updating of the texts of the numerous processing of personal data disclosures, provided by TIM and other Group companies to the different types of data subjects (e.g. customers, employees, visitors);
- the review of the procedures to ensure compliance with the law in cases of activities assigned to third parties (e.g. suppliers and business partners).

¹ Data breach.

A specific training project was then put in place to raise awareness in the various company departments and to illustrate the policies and procedures issued for GDPR application. Eight training programmes were carried out involving the participation of about 600 TIM and Group Company employees.

Training initiatives were carried out in the area of privacy, particularly involving internal staff that have been reassigned to Commercial Departments so that the privacy obligations to be introduced in sales and telemarketing activities are properly understood and applied, as well as the personnel responsible for carrying out obligatory services for the legal authorities.

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 consideration of these activities, the update is scheduled for the periodic report on the status of adoption of the security measures envisaged by privacy legislation that, in a company document, formalises the activities carried out to guarantee compliance with the provisions on personal data processing, the results achieved and the status of improvement plans. Finally, also during the course of 2018, 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.

[GRI 103-3: Management Approach] [GRI 418] The table below shows the information requests made to TIM, in Italy, by the Italian Data Protection Authority, including those made following reports by customers.

	2018	2017	2016
Requests received	71	124	33

[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 24 hours a day in order to prevent and detect any unauthorised 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. Federal Law No. 12,965 (*Brazilian Civil Rights Framework for the Internet*) of April 2014, articles 3, 7, 8, 10, 11, 16, ensures the privacy and protection of personal data also for Internet users. On 14 August 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 governed by public or private companies, regardless of the area and country in which it is located or in which the data is located, on condition that:

- the processing is carried out in the national territory;
- the purpose of the processing is the provision, amongst other things, 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.

In December 2018, the *Provisional Measure* No. 869/2018 - approved by the previous Brazilian President - amended Law No. 13,709, to create the National Data Protection Authority (within the structure of the Presidency of the Republic); it implies wider state control and, among other matters, extends the entry into force of the law to twenty-four months.

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, one of which is a specific policy for safeguarding privacy (updated in June 2016), based on the "need to know" principle (personal data processing is restricted to the minimum required to carry out the work) and separation of functions. These policies and procedures provide the methods for the classification and management of information to guarantee suitable protection levels.

The ICT Security and ICT Risk Management department is responsible for updating policies, procedures, and governance of information security, ensuring the involvement of all areas related to the matter, disclosure and compliance with the guidelines within of the TIM Group in Brazil.

TIM Participações, after classifying the information, performs a risk analysis of systems that store such data, mitigates the relative vulnerabilities and makes its employees and suppliers aware. All TIM Part. service providers, which offer value added services (VAS), must sign an agreement to not disclose information of which they become aware.

Although TIM Participações has not yet acquired certification, it carries out its activities according to ISO 27001, the international standard of best practice for information security management. In the event that a customer submits a complaint for violation of privacy, the Company assesses the situation and provides clarification to resolve any problems (even potential ones). Customers have access to data privacy procedures when they have signed the related plans according to the terms and conditions of the contract.

In relation to technological resources, TIM Participações has a number of specific technical resources to support management of this issue, such as, for example, data loss prevention (DLP), identity management, content filtering, and the *Cyber Security Operations Centre (CSOC)*.

The CFO - Security - ICT Security and ICT Risk Management Department is responsible for updating the policies and procedures, their management and governance of information security; moreover, it guarantees the involvement of all the departments involved, the diffusion and compliance with the guidelines in TIM Participações.

TIM Participações undertakes to comply with the *Sarbanes-Oxley Act*, in accordance with its guidelines, relating to internal controls for the confidentiality, control and protection of personal data.

In addition, the company *Anti-corruption* programme includes an organisational-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 *Foreign Corrupt Practices Act (FCPA)* and the *UK Bribery Act*.

[GRI 103-3: Management Approach] [GRI 418] [GRI 418-1] TIM Participações:

- at 31 December 2018 there were 206 pending complaints from customers, of which 195 were opened in 2018, 10 in 2017 and one in 2016;
- in 2018, 63 complaints were closed (of which 26 were already reported in the 2017 TIM Sustainability Report). For 12 of these complaints the court found in favour of TIM Participações or they did not incur any loss for the company. In 49 cases, the judges found against the Company and ordered compensation for customers for a total of 1,000 reais to 12,000 reais. The remaining two cases closed with an agreement between the parties.

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 2018 included the following:

- ongoing work on the research, collection, management and use of *intelligence* connected with the new security threats (*Cyber Threat Intelligence Management*) with the development and experimentation on a proprietary *Threat Intelligence Platform*;
- experimentation in Artificial Intelligence and in particular *Machine Learning* techniques for the development of new methods of analysing security data;
- conception and start of development of innovative tools for the automation of specific *cyber security* processes;
- participation in European research programmes (HORIZON 2020) and in particular the call for “*Establishing and Operating a pilot for a Cybersecurity Competence Network to develop and implement a common Cybersecurity Research & Innovation Roadmap*” with the CONCORDIA proposal (*Cyber security cOmpeteNCe fOr Research anD InnovAtion*) first in the final ranking and accepted for four-year community funding;
- overseeing and guiding mobile *cyber security* with participation, as *Deputy Chair*, in the work of the GSMA (GSM Association) *Fraud and Security Group*;
- the collaboration, within the scope and 3GPP¹ SA² SECAM³, 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;
- guidance of the *NGMN Alliance Security Competence Team* (*Next Generation Mobile Network Alliance*), an international organisation focused on the development of new generation networks and services, in particular the fifth generation (5G);
- participation, within the ETSI⁴ in the work of TC CYBER focused on *cyber security* and the ETNO⁵ field, NSecFC WG (*Network and Services Security, Fraud and Cybercrime*), and more specifically the CERT TF (*Computer Emergency Response Team Task Force*) subgroup on “*Cyber Threat Intelligence*” and *Distributed Denial of Service Mitigation*;
- implementation of various scouting and testing campaigns to identify and assess new security solutions/processes;
- the development of new IPR⁶.

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 2018 TIM consolidated and streamlined its Smart Services offer (security, energy efficiency, environmental and digital services in urban areas) 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.

¹ The 3rd Generation Partnership Project.

² Security Assurance.

³ SECurity Assurance Methodology.

⁴ European Telecommunications Standards Institute.

⁵ European Telecommunications Network Operators' Association.

⁶ Intellectual Property Rights.

SMART LIGHTING	SMART BUILDING	TIM ENERGREEN	TIM URBAN SECURITY	DIGITAL SCHOOL KIT
<p>Integrated management of the local infrastructural networks and construction of the Smart City environments.</p> <p>¹Revenues: 23 K euros</p> <p>Enabled services:</p> <ul style="list-style-type: none"> • 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 vapour or incandescence). Added to these values is the option of varying lighting by switching on and/or reducing the intensity of individual lamp posts; • video surveillance; • digital communication with citizens and users in general (e.g. tourists); • Wi-Fi hotspots (broadband access). 	<p>Intelligent management and automation of buildings thanks to <i>ad hoc</i> solutions able to be implemented on a project basis through the <i>TIM Energreen</i> offer.</p> <p>The energy saved can be estimated at around 10%, if only the <i>Metering & Reporting</i> function is implemented, but it can rise to over 50% for specific efficiency projects.</p>	<p>Remote management of energy consumption, implemented on TIM assets and services, for the purpose of saving energy.</p> <p>Revenues: 2,080 K euros</p> <p>Enabled services:</p> <ul style="list-style-type: none"> • <i>on-site</i> energy audit: <i>on-site</i> analysis for energy efficiency; • <i>Metering & Reporting</i>; • <i>Efficiency strategy</i> (advanced reporting and <i>Energy Management</i> consulting services); • <i>Energy Cost Management Services</i>; • <i>Special Project: ad hoc</i> efficiency improvement work. 	<p>Management of participated security and urban territory control.</p> <p>Revenues: 270 K euros</p> <p>Enabled services:</p> <ul style="list-style-type: none"> • computerised management of the penalty issuing process for traffic and other violations for local public administration; • participated management of urban issues, with reporting of safety-related issues, antisocial activities and urban decay; • real time monitoring of the urban and natural environment of cities (humidity, temperature, noise pollution, CO₂, gaseous pollutants, etc.); • monitoring of available public parking spaces. 	<p>Integrated digital management of teaching and school administration². The offer can be configured according to the requirements 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"> • enabling infrastructure (fixed internet, Wi-Fi & security connectivity); • digital teaching services (teaching platform, application integrated with school e-book stores, with which schools can organise activities, training courses, and individual and collaborative study); • catalogue of turnkey products and services (creation and/or expansion of relationships, MDM³, high definition monitors, furnishings, accessories and much more).

The revenue trend envisaged by TIM for the Digital Territory over the next three years is +10% Year on Year.

The Olivetti *Smart Lighting* system⁴ combines the replacement of traditional lighting with low energy consumption LED lights with the optimisation of lighting system management through wireless technology remote control, allowing for

¹ The revenues from this are not high as it is offered together with other products.

² 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.

³ *Mobile Device Management*, the definition of *best practice* guidelines and those for providers of solutions for centralised management and security of smartphones and mobile devices.

⁴ olivetti.com/it/iot-big-data/soluzioni-iot/smart-lighting.

savings of up to 65%. Assuming an average consumption per capita for public lighting in Italy of about 99.8 kWh¹ 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 CO₂ emissions (Scope 2)².

¹ Calculation based on data from Terna (the Italian electricity transmission system operator) and ISTAT (the Italian National Institute of Statistics), relating to December 2017.

² Using the same emission factor used by TIM in this Report for Scope 2 emissions reporting, i.e. 0.386 kg CO₂/kWh.

The supply chain

[GRI 103-1: Management Approach] [GRI 308] [GRI 414] The 2018 materiality analysis confirmed the consolidation of social and environmental aspects of the supply chain as a material topic for the Group.

Digital represents the new collective progress factor, offering new opportunities that impact the economy and society in different ways.

Suppliers have a direct influence on the communities and in the areas within which they carry out their activities; in addition, the involvement of the organisations that monitor the related social and environmental aspects, must be considered.

[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 the specific 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 operations are based, Italy and Brazil, and are mainly in the following categories of products/services:

- telecommunications networks,
- telecommunications products,
- information technology,
- technical and professional services,
- power systems.
- other.

[GRI 102-9] In total, 4,749 suppliers received purchase orders from the Group in 2018 (-6% compared with 2017 and -14% compared with 2016), including 3,757 for the Domestic BU¹ (-6% compared with 2017 and -9% compared with 2016), 994 for Brazil (-9% compared with 2017 and -30% compared with 2016)².

[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/organisational 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 Conduct³.

¹ For the year in question, Domestic BU suppliers also included the companies of Persidera and Olivetti.

² 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.

³ The Group Code of Ethics (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 Organisational 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 minimise injuries and occupational illnesses)" must be guaranteed for both the people of the Group and the human resources of suppliers.

[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) receive¹ initial screening in relation to respect for the principles of the Code of Ethics and are subject to regular assessment. The actions taken by TIM to check suppliers varies 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 2018, 100% of new suppliers enrolled in the Register signed a specific questionnaire in which they undertook for themselves and for any authorised subcontractors, collaborators and employees to observe the principles of behaviour contained in the Group's Code of Ethics and Conduct².

While the supply is taking place, registered companies which have received purchase orders normally undergo incoming quality control checks (a requirement for the acceptance and use of the purchased goods) and monitoring of the vendor rating. For some of these, environmental and social audits³ are also carried out.

For some sectors, the Group also measures and monitors subcontracting suppliers, in particular, for network jobs; there were 889 subcontracting businesses (-4% compared with 2017 and +1% compared with 2016). In this sector, the estimated total number of suppliers involved in the supply chain is 916⁴.

In the last three years, no significant changes have occurred in the structure of the Group's supply chain.

Sustainability initiatives

[GRI 103-2: Management Approach] [GRI 308] [GRI 414] In 2018, 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/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 most 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 specialising 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. The tools developed and used for the Domestic BU have been explained and transferred to the Brazil BU.

[GRI 308-1] [GRI 407-1⁵] [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 2018, 42 were considered to be at greatest risk (-18% compared with 2017 and

¹ Excluding government agencies.

² In Brazil the percentage was 96%.

³ [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.

⁴ In the Brazilian BU, at present there is no systematic monitoring of level two suppliers.

⁵ [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 workers must enjoy the legal right to establish and/or subscribe to trade union organisations to protect the individual and collective interests. 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.

-13% compared with 2016). 16 purchase and suppliers¹ 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 organisations 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 provides 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 website, the document helps to orient purchasing policies towards low environmental impact products and services.

[GRI 414-1] [GRI 414-2] In 2018 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 2018. 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 2018 in the framework of the *Joint Audit Cooperation*² (JAC) initiative, in accordance with the Memorandum of Understanding initially signed at the end of 2009 by TIM, Orange and Deutsche Telekom. The initiative was subsequently joined by: Proximus, KPN, Swisscom and Vodafone Group in 2011; Telenor and Telia Company in 2012; Verizon in 2013; AT&T, Telefónica and Rogers in 2016; MTS, Telstra and Veon in 2018.

The purposes of the *Joint Audit Cooperation* initiative are:

- 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 programmes, establishing long-lasting and mutually beneficial cooperation with them in terms of efficiency, productivity and risk reduction in the *supply chain*;

¹ NGAN (Next Generation Access Network, i.e. the next generation network) equipment, 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, integrated solution –APPL; call centre; telesales, access gateway, marketing, middleware (set of computer programs that operate as intermediaries between different applications and software components) IPTV equipment, handset.

² Further information is available on the jac-initiative.com website.

- to perform *capacity building* activities, through specific supplier training programmes, particularly in order to disseminate a culture of sustainability throughout the supply chain (sub-suppliers and sub-sub-suppliers).

[GRI 308-2] [GRI 407-1] [GRI 408-1] [GRI 409-1] [GRI 414-2] Between 2010 and 2018, thanks to the gradual increase in the number of members of JAC, 454 audits¹ were carried out – 91 in 2018 alone – in production plants (suppliers and sub-suppliers) located in Asia, Central and South America, North Africa and Eastern Europe. The checks were carried out through international specialised companies selected by competitive tender and related to a total of more than 970,000 workers. The suppliers included in the audit campaign belonged to the user devices and appliances, network appliances and IT equipment production sectors.

[GRI 103-3: Management Approach] [GRI 308] [GRI 414] The table below shows the non-conformities recorded during audits on Group suppliers, including those relating to Human Rights².

	2018	2017	2016
Environment	30 (22)	38 (32)	21 (17)
Discriminations	2 (2)	11 (10)	2 (2)
Business ethics	28 (24)	53 (48)	26 (25)
Forced labour	3 (2)	7 (3)	6 (5)
Child labour	3 (3)	4 (4)	4 (2)
Freedom of association	2 (2)	3 (2)	5 (5)
Working hours	38 (27)	60 (46)	46 (33)
Salaries	7 (6)	21 (22)	8 (6)
Disciplinary proceedings	1 (0)	3 (1)	2 (2)
Health and safety	105 (77)	182 (142)	124 (113)

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 members³.

Over time, the incidence of the number of non-conformities detected by audits has gradually decreased, a sign of suppliers greater attention to *corporate social responsibility* issues. In fact, from a non-compliant audit value of 7.1 in 2016, it went from 5.4 in 2017 to 5.3 in 2018; the progressive average since 2010 was 6.7 non-compliant audits.

Moreover, in the 2016-2018 three-year period, 84% of the non-compliances detected were remedied within one year from the start of the corrective action plan, for a total of over 500 actions.

The first three areas affected by these actions were health and safety, working hours and business ethics.

On 31 January and 1 February 2018, the seventh annual suppliers Forum in the JAC programme was held in Guangzhou (China) on the theme of: “How to ensure supplier’s long term improvement of sustainability performance after site has been audited?”. The event was attended by 200 delegates, representing telecommunications operators, suppliers, members of the press, organisations operating in sustainability and non-governmental organisations.

The Forum was also attended remotely, via *live streaming*.

¹ 310 of whom were TIM suppliers (46 in 2018 alone). The total number of audits may be affected by the presence of some audits conducted over two years.

² Due to the adoption of a new calculation system, data for corrective actions for the years 2017 and 2016 may differ from those published in the 2018 TIM Sustainability Report.

³ [GRI 103-2: Management Approach] [GRI 308] [GRI 414] As the aim of the initiative is to help suppliers in the countries 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 the termination of the purchase contract.

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 optimise operational processes by applying *social networking* systems to the business context, is now well established; the Portal has around 4,312 *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 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.

On 13 December 2018, TIM provided a new way of talking to our partners and suppliers. The *Procurement Unit & Real Estate* department has invited more than one hundred suppliers to take part in the first ecosystem convention. The name chosen for this event was "Let's network for the Future".

During the event, the top six suppliers contributing to various aspects of the business received an award; in particular, the supplier Ericsson received recognition for the 'Sustainability in practice' category.

The award was given based on the following criteria: the sustainability questionnaire given during the supplier qualification phase, result and management of on site sustainability audits.

Supply chain commitments

[GRI 103-2: Management Approach] [GRI 103-3: Management Approach] [GRI 308] [GRI 414]

2018 results and 2019 objectives: Italy

INDICATORS	DETAILS	2018 OBJECTIVES	FINAL FIGURES 2018	2019 OBJECTIVES
% suppliers audited	Total amount of high risk suppliers who have undergone an in-depth sustainability audit since 2010 ¹	80% of high risk suppliers	84%	85%
% of suppliers assessed	Suppliers assessed with a basic ethics questionnaire. Moreover, suppliers belonging to risk sectors are assessed with a more complex questionnaire ²	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	80%	83%	90%
% contracts containing clauses connected with ESG risks		100%	100%	100%
% suppliers with ISO 14001 certificates or equivalent		70% 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%

2018 results and 2019 objectives: Brazil³

INDICATOR	DETAILS	2018 OBJECTIVE	FINAL FIGURE 2018	2019 OBJECTIVE
% of suppliers assessed ⁴	Suppliers assessed with a basic ethics questionnaire.	n.a.	n.a.	85%

¹ 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 same suppliers operate. The same applies in general to the total number of suppliers belonging to the various procurement markets.

² The KPI refers to new suppliers and existing suppliers in case of renewal or extension of their qualification.

³ This is a new objective; the final result for the year 2018 is shown in the Appendix, “2017 and 2018 results” (“TIM Brasil” table).

⁴ Suppliers contracted directly by the Business Support Officer department.

HUMAN RIGHTS

TIM's Commitments

[GRI 103-1: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] The materiality analysis, conducted by TIM in 2018, 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 and/or compulsory 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.

[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, 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*¹.

The twelve companies, which established the PLG in 2018, participated directly in the selection, preparation and presentation of the topics discussed (*good practice, joint analysis, lessons learned*), with the contribution of statements and external experts. The topics discussed during the two webinars in which TIM participated in 2018, are as follows:

- 15 March: “Internal and external awareness on modern slavery”;
- 11 December: “Meeting transparency requirements and communicating Human Rights effectively”.

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 401] [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* portal made available to all stakeholders.

Complaints received and handled regarding Human Rights

	2018	of which substantiated	2017	of which substantiated	2016	of which substantiated
Italy	2	0	10	2	7	0
Brazil	52	15	31	10	20	13

¹ PLG is a learning platform and active leadership for European companies, where the meetings take place in respect of the *Chatham House Rule*.

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 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), and that the relative responsibilities have been assigned;
- 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 103-3: Management Approach] [GRI 412-1] TIM carried out the first internal *due diligence* on Human Rights (concluded in 2014) using the tool OCAI¹, and the involvement of the Group's two biggest entities in terms of workforce (the percentage of employees covered was 98%) and investments, Domestic BU ²(excluding 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)³.

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 Report 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 2015⁴, 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

¹ *Organisational 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".

² Including Industrial Relations, Health & Safety, Equal Opportunities, Privacy, Procurement, Compliance, Protection of VAS customers, Protection of customers of the universal telephony service.

³ No level one response was supplied during the first round.

⁴ Available via the link telecomitalia.com/tit/it/sustainability/news-events/news-group/policy-diritti-umani.html in Italian and via the link: tim.com.br/sp/sobre-a-tim/sustentabilidade/principios-e-politicas-da-tim in Portuguese; the policy is also available in English.

starting work, accessibility for the disabled, protection of maternity, forced/compulsory/restricted labour, 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;
- [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 & Organizational Development* department, responsible for its observance as regards the involvement of TIM's people; the *Procurement Unit & Real Estate* 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 has been recently updated and is currently available on the *TIM Academy e-learning* platform.

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 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.

¹ Avanzi Srl, more information is available at the website avanzi.org.

TIM took part in the *due diligence* on Human Rights course organised by *Global Compact Network Brazil*.

[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	2018	2017	2016
Domestic	177,323	197,057	110,722
Brazil	22,581	19,269	48,036

Percentage of employees trained on Human Rights in the Group

Business Unit	2018	2017	2016
Domestic	54	80	21
Brazil*	110	92	110

* The percentage takes into account the number of employees still at the Company and those who have left.

Complaints and incidents

[GRI 103-3: Management Approach] [GRI 406] [GRI 407] [GRI 408] [GRI 409] [GRI 410] [GRI 412] 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,
 - internal policies and procedures,
- and any irregularities and/or negligence.

The handling of reports above, specifically those for which the Head of the Audit Department is responsible (known as "whistleblowing"), is a requirement of the Sarbanes-Oxley Act and - in part - of the "UN Guiding Principles on Business and Human Rights".

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 & Organisational Development* department.

The Whistleblowing¹ procedure is available both on the company Intranet and via the website www.telecomitalia.com.

Employees were made aware of this in a letter from the CEO and a news item published on the company Intranet.

In 2018, a total of 160 complaints were received in Italy and 1,009 in Brazil.

In the case of Italy, of the 160 complaints, 51 were anonymous and 109 non-anonymous - classified as follows:

- 82 in the context of the “Whistleblowing” procedure²;
- 76 not covered by the procedure and sent to the relevant departments for the respective checks, informing the Audit Department of the result; including:
 - ✓ 70 customer complaints (poor service);
 - ✓ 6 other;
- 2 “irrelevant” ones in terms of the purpose of the procedure.

In the case of **Brazil**, of the 1,009 complaints, 647 were anonymous and 362 non-anonymous, classified as follows:

- 782 in the context of the “Whistleblowing” procedure³;
- 189 customer complaints (poor service);
- 38 “irrelevant” ones in terms of the purpose 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 Human Rights Policy, i.e. the “Whistleblowing” procedure, available at the following link:

telecomitalia.com/content/dam/telecomitalia/documents/Governance/it/codici_principi_procedure/Procedura-Whistleblowing-ITA.pdf.

In 2018, no substantiated reports were received relating to Human Rights for which the 231 Supervisory Board is competent.

Complaints received and handled regarding Human Rights in general

Italy	2018	of which substantiated	2017	of which substantiated	2016	of which substantiated
Total number of complaints regarding Human Rights received through the main reporting mechanisms	0	0	3 ⁴	0	0	0
Handled during the reporting period	0	0	3	0	0	0
Resolved during the reporting period	0	0	2	0	0	0
Total number of complaints received prior to the survey period and resolved during the reference period	1	0	0	0	0	0

¹ The aforementioned Procedure is being updated, also following the entry into force of Law no. 179 of 30 November 2017, “Provisions on the protection of parties reporting offences or irregularities they become aware of in the context of a public or private employment relationship”.

² 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 the tables in the chapter.

³ Of which 703 were of the “company” type (processes that can be improved, etc.) and 79 of TIM Part. people type (employees in crisis situations).

⁴ Two complaints concerned the rights related to access to telecommunications services and one the human resources of TIM suppliers.

Brazil

Total number of complaints regarding Human Rights received through the main reporting mechanisms	8 ¹	0	5 ²	0	8 ³	4
Handled during the reporting period	8	0	5	0	8	4
Resolved during the reporting period	7	0	4	0	8	4
Total number of complaints received prior to the survey period and resolved during the reference period	1	0	0	0	0	0

[GRI 406-1] [GRI 411-1] Complaints received and handled regarding discrimination issues

Italy	2018	of which substantiate	2017	of which substantiate	2016	of which substantiate
Total number of complaints regarding discrimination received through the main reporting mechanisms	0	0	3 ⁴	1	0	0
Handled during the reporting period	0	0	3	1	0	0
Resolved during the reporting period	0	0	2	1	0	0
Total number of complaints received prior to the survey period and resolved during the reference period	1	0	0	0	0	0

Brazil

Total number of complaints regarding discrimination received through the main reporting mechanisms	5 ⁵	1	3 ⁶	0	2 ⁷	1
Handled during the reporting period	5	1	3	0	2	1
Resolved during the reporting period	5	1	3	0	2	1
Total number of complaints received prior to the survey period and resolved during the reference period	0	0	0	0	0	0

¹ All eight complaints concerned alleged breaches of the *privacy* laws of customers and/or employees.

² Of the five complaints, four concerned suppliers' failure to apply workplace health and safety rules and one the sexual exploitation of children/adolescents.

³ Of the eight complaints, three cases (one substantiated and resolved) concerned the working conditions of employees of TIM Part. suppliers, three other cases (one substantiated and resolved) concerned customers and/or employees' *privacy*, and the final two (both substantiated and resolved) concerned the impact of business activity on the community in which it operates (e.g. electromagnetic emissions).

⁴ 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.

⁵ 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.

⁶ Of the three complaints two concerned discrimination or harassment based on sexual orientation and one discrimination or harassment of an obese person.

⁷ Of the two complaints one (substantiated and solved) concerned discrimination or harassment based on ethnicity or race and in the other based on sexual orientation.

[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 years¹.

Complaints received and handled relating to labour issues

Italy	2018	of which: substantiated	2017	of which substantiated	2016	of which substantiated
Total number of complaints regarding work matters received through the formal mechanisms in the reference period	2 ²	0	4 ³	1	7 ⁴	0
Handled during the reporting period	2	0	4	1	7	0
Resolved during the reporting period	1	0	4	1	7	0
Total number of complaints regarding work matters received previously, which were resolved in the reference period	0	0	1	0	0	0
Brazil						
Total number of complaints regarding work matters received through the formal mechanisms in the reference period	39 ⁵	14	23 ⁶	10	12 ⁷	9
Handled during the reporting period	39	14	23	10	12	9
Resolved during the reporting period	38	14	21	10	12	9
Total number of complaints regarding work matters received previously, which were resolved in the reference period	0	0	0	0	7	3

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.

¹ 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.

² The two complaints concerned, in one case sexual harassment at work, unsubstantiated, and in the other the right of the worker to perform activities and tasks respecting their dignity in the course of work.

³ 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*.

⁴ The seven complaints concerned the execution of duties in respect of worker's dignity in five cases, harassment in one case and - in the last case - worker's freedom of expression.

⁵ 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).

⁶ Eighteen complaints concerned *harassment* (of which nine substantiated and resolved) and five sexual harassment at work (one of which was substantiated and settled).

⁷ Eleven complaints concerned *harassment* (of which eight were substantiated and resolved) and one sexual harassment at work (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)		
	2018*	2017	2016	2018*	2017	2016	2018*	2017	2016	2018	2017	2016
Domestic	15,031	15,354	15,006	5,955	6,171	6,698	5,518	4,551	3,709	48,200	49,851	51,280
Brazil	3,943	4,502	4,047	1,467	1,635	1,325	890	1,150	1,167	9,658	9,508	9,849
Other activities	-	-	11	(19)	(16)	(18)	-	-	-	43	70	100
Adjustments and eliminations	(35)	(28)	(39)	-	-	(3)	-	-	-	-	-	-
Consolidated total	18,940	19,828	19,025	7,403	7,790	8,002	6,408	5,701	4,876	57,901	59,429	61,229

*From 1 January 2018 the TIM Group retroactively adopted the IFRS 9 (Financial Instruments) accounting standard, making use of the specific exemptions provided by the standard and without restating the previously recognised periods, as well as the IFRS 15 (Revenues from contracts with customers) accounting standard using the simplified retrospective method. Consequently, operating and financial data of previous years have not been restated. Further details are provided in the Note "Accounting Policies" to the Consolidated Financial Statements at December 31, 2018 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 5.3 million euros in 2018 (5.2 million euros in 2017 and 7.2 million euros in 2016). It should also be noted that the total contributions received in 2018 from the Domestic BU amounted to approximately 119 million euros.

Other consolidated economic-financial data

(millions of euros)	31/12/2018	31/12/2017	31/12/2016
Total Equity	21,747	23,783	23,553
- attributable to Owners of the Parent	19,528	21,557	21,207
- attributable to non-controlling interests	2,219	2,226	2,346
Profit (loss) for the year attributable to Owners of the Parent	(1,411)	1,121	1,808
Profit (loss) for the year attributable to Non-controlling interests	259	166	158
Net financial debt carrying amount	25,995	26,091	25,955

[GRI 201-1] **Economic value produced and distributed**

(millions of euros)	2018	2017	2016
a) Total operating revenues and other income	19,281	20,351	19,336
b) Interest income and dividends received	54	129	159
c) Gains (losses) on disposals of non-current assets	(1)	11	14
d) Directly produced economic value (a+b+c)	19,334	20,491	19,509
e) Operating expenses	8,649	8,824	8,128
f) Employee benefits expenses	3,105	3,626	3,106
g) Lenders	1,585	1,705	1,729
h) Duties and taxes	696	750	946
i) Distributed economic value (e+f+g+h)	14,035	14,905	13,909
Non-distributed economic value (d-i)	5,299	5,586	5,600

Detailed expenses

(millions of euros)	2018	2017	2016
Employee benefits expenses	3,105	3,626	3,106
• Salary and wages	1,994	2,056	2,116
• Social security expenses	738	745	770
• Sundry expenses	373	825	220
Operating expenses	8,649	8,824	8,128
• Acquisition of goods and services	8,186	8,388	7,793
• Other operating expenses	1,135	1,097	983
• Change in inventories	(102)	(35)	(9)
• Internally generated assets	(570)	(626)	(639)
Lenders	1,585	1,705	1,729
• Distributed dividends	281	223	191
• Interest expenses	1,304	1,482	1,538
Duties and taxes	696	750	946
• Direct duties	571	639	846
• Indirect duties and taxes	125	111	100
- relating to Domestic BU	598	679	873
- relating to Brazil BU	74	64	84
- relating to foreign operations	24	7	(11)

For each jurisdiction where the Group permanently operates with its own company subsidiaries, the income tax expenses paid locally are shown (millions of euros)

	2018	2017	2016
Argentina	0.03	0.45	(0.03)
Austria	0.02		
Belgium	0.02	0.02	
Bolivia			
Brazil	42.78	33.64	51.78
Bulgaria			
Chile	0.02	0.01	
Colombia		0.05	
Russian Federation		0.01	
France	0.23	0.28	0.37
Germany	0.34	(0.04)	0.07
Greece		0.01	
Ireland		2.30	9.16
Virgin Islands (U.S.)			
Israel	(0.06)	0.16	0.41
Italy	684.06	1,055.23	143.82
Luxembourg	10.53	4.77	11.44
Netherlands	0.06	0.05	0.04
Panama		0.02	
Paraguay			0.05
Peru	0.05	0.06	
Puerto Rico	0.04	0.08	
Czech Republic			
United Kingdom			
Romania	0.01		
San Marino	0.19	0.14	0.10
Singapore			
Slovakia			
Spain	(0.04)		(0.07)
Switzerland	0.02	0.04	0.01
Turkey		(0.27)	
USA	1.08	2.30	1.32
Venezuela	0.01	0.20	
Total	739.38	1,099.51	218.48

Initiatives with stakeholders – summary tables



Dialogue



Partnership



Information



Consultation

THE ENVIRONMENT

COMMITMENT - ACTIVITIES

Commitment. TIM has undertaken to reduce its environmental impacts, aimed at improving its performance energy efficiency, to adopt purchasing policies that take account of environmental issues, and to propose innovative technological solutions to individuals, companies and PA for the containment of environmental impacts.

Activities. The active collaboration between TIM and industry associations and non-profit organizations translates in the subscription of the **commitments, charters and codes** that influence and direct the Group's strategy for the Environment. In 2018, worthy of mention is the drafting of the **Specific Group Policy on the Environment** ("Commitment to environmental sustainability in the TIM Group").

On the energy front, testifying to its commitment, **TIM won the 2018 Energy Manager award for the service sector.**

Activities. By way of example, the environmental Statements product initiatives for customers -TIM eco-friendly (Environment); the Smart Service offer (security, energy efficiency, environment, digital services of the city) was consolidated and rationalised (Customers).

Commitment. TIM is engaged in research and development for ICT solutions Internet of Things (Internet of Things) for the Smart City who have a positive environmental impact.

On the subject of combating climate change, TIM Partecipazioni, on the internal front, adopts a four-fold strategy which - by way of example - has translated into the adoption of a biogas plant for energy self-generation (end 2018) (Environment).

Activities. Issue of guidelines and standards on measurement methodologies and calculation of the levels of exposure to electromagnetic radiation issued by the radio systems-mobile.

INITIATIVES

Collaboration with other telecoms operators on issues of environmental importance in the context of industry associations and non-profit organizations including European Telecommunications Network Operators' Association (ETNO), European Telecommunications Standards Institute (ETSI), the CDP and International Telecommunication Union (ITU) (The TIM Group and Environment).



Present at Global e-Sustainability Initiative (GeSI), in particular in the **Industry Responsibility Committee Work Group** for the sustainability of products and services (Environment).



TIM collaborates with a number of municipalities in multi-year projects in the context of eco-sustainability: **REPLICATE** (Florence Smart City) and the **MONICA** project (Turin Smart City), **SMILE** project (Turin Smart City). (Environment)

In Brazil. **Partnership with the Ministry of Science Technology, Innovation and Communications** (MCTIC) to develop solutions for the mitigation and adaptation to climate change. (Environment and The value chain/Customers)



TIM actively participates in the committees and working groups of **CEI (The Italian Electrotechnical Committee)** (Environment).



COMMITMENT - ACTIVITIES

INITIATIVES

Commitment. The Group is committed to the issues of online security and the dissemination of good Internet surfing practices, in particular for the protection of minors from content that may damage their psychophysical development.

Activities. Since 2017, the "Safe Surfing" App created by TIM has been available (in collaboration with the State Police); TIM-Protect is the exclusive TIM option for total protection against WEB threats.

Agreement with the Ministry of the Interior - Department of Public Security for the implementation of a minor disappearance warning device.

Commitment. Also in 2018, innovation, both technological and business-based, is confirmed as the central element to respond to the change in the technological, market and competitive context. Innovation management is overseen, with different missions, by the Innovation Department and by engineers, but involves various internal and external stakeholders of the company.

Activities. Opening of 2 Business Innovation Centres with Cisco and Huawei; 18 research contracts totalling 840 thousand euros; activities with 27 standardization bodies and associations (including ETSI, ITU, CENELEC and 3GPP), alliances (oneM2m and BBF) and telco open communities (ONF, CORD) and associations (GSMA and NGMN). TIM actively participates in these initiatives, contributing to the definition and evolution of technologies with innovative solutions such as NB-IoT. Open Innovation programmes financed by TIMWCAP and supported through the IoT Open Lab in Turin. In 2016, TIM launched a programme (5G for Italy) to build an ecosystem of partners (14 in 2018), with which to develop usage scenarios (Bari/Matera project, Turin project, San Marino project)



Commitment. Technological evolution. The strategic agreement with Microsoft is part of the TIM three-year technological plan and will lead to the development of innovative tools that will expand the Group's offer.

Commitment. TIM is committed at the national and international level to research and innovation activities for cyber security and information and network security.

Member of the **Advisory Board of Safer Internet Centre (SIC)**, which TIM participated in 2 working groups: "School" and "Communication".

TIM participates in the **"GSMA - Mobile Alliance against Child Sexual Abuse Content"** and **"Alliance to better protect children online"** working groups (The value chain/Customers).



TIM develops **numerous co-design partnerships** by signing MoUs with Tech companies (including Ericsson, Huawei, Cisco and other companies of international significance), innovative start-ups, important Universities and research centres European and North American, NGOs and civil society, many according to the principles of **the Open Innovation**. In 2018, R&D activities focused on infrastructure issues and application solutions, particularly in the 5G area. For example, the cooperation agreement with Qualcomm to share a strategic vision on the development of advanced business and services and to test innovative solutions to accelerate their dissemination. (website/media archive/press notes)

In Brazil. RAN-sharing agreement with other Brazilian mobile operators for the development of LTE in rural areas with system benefits and efficiencies and positive environmental and social impacts.

Since 2017, TIM Participações has transformed TIM Lab into the first **Telecom Infra Project (TIP)** Community Lab in Latin America, which will be used by the members TYP (Facebook, SK Telecom, Deutsche Telekom, Nokia, Intel and other companies) to create standard universal relative - initially - solutions transport networks. The TIP is an initiative collaborative which aims to identify new approaches to the creation and deployment of the infrastructure of telecommunications networks. (The value chain/Research and development).

Strategic agreement for the development of artificial intelligence with Microsoft.



TIM participates in international work groups for the monitoring and steering of cyber security (GSM Association Fraud and Security Group), for the definition of security requirements (in the 3GPP¹ SA2 SECAM² area), for cyber and network security, respectively, in the ETSI and in the ETNO field and leads the Security Competence Team of the NGMN Alliance (Next Generation Mobile Network Alliance) for the development of new generation networks and services.

¹ The 3rd Generation Partnership Project.

² Security Assurance.

³ SECurity Assurance Methodology.

COMMITMENT - ACTIVITIES

INITIATIVES

Commitment. In 2018, with the aim of promoting the involvement of people, TIM continued the process undertaken the previous year in internal communication that develops in two fundamental directions:

- the conversion from traditional channels of internal communication initiatives toward the most innovative, in a logic web-centric, to facilitate the exchange of ideas and dialogue between all members of the corporate community;
- the “story” of the strategy, actions and corporate activities in a clear, direct, simple and capillary manner, through **ad hoc communication plans** on every project.

Commitment. TIM is strongly committed to consider tools and services aimed at enhancing human resources and motivate people in the Company, making them capable of adapting and manage the fast change in the telecommunications sector through the continual updating of the skills technical-behavioural and styles of work. In 2018, an additional skill, “Diversity and inclusion”, was introduced across the other 4 areas.

Activities. Based on the results of the performance management was proposed to each person the relative individual development plan: during the year were enjoyed approximately 20,000 individual development plans about 32,000 euros gross total assigned (63%), including the plans managerial individual.

Development Plans leadership management succession planning.

Test of new tool for assessment “Motivation Review” and scientific validation with La Sapienza University.

Commitment. The management system of health and safety provides numerous initiatives aimed at ensuring safety ever greater to workers.

Activities. Campaigns to monitor the physical agents; training initiatives toward all the company staff; analysis of accidents and eventual identification of corrective measures; created a digital product dedicated to the management of emergencies in case of earthquakes.

Activities for internal communication with the various initiatives:

- **1,450 live meetings** on strategies with the first lines and all employees, connections in video conferencing (94% of the population covered);
- the “**We tellers**” network, meetings and targeted actions for communication of the strategy;
- **communications plans supplemented** by series of videos and video interviews to explain the strategies, news, projects and jobs in TIM (TIM People/Internal communication).

Brazil. In 2018, training and communication initiatives were undertaken to support managers in illustrating the company strategy to their respective teams (TIM people/Commitment to our people).



In 2018, the **performance management process** involved 99.8% of people and 86% received feedback from their superior.

Assessment of managerial potential is instrumental to the identification and enhancement of the current and future managerial pool of the Company (447 assessments). Experimenting a **new assessment process** (Motivation Review) aims to identify individual motivation in 4 Group companies (1,978 people of which 179 managers) (TIM People /Development and new skills).

In terms of safety, TIM has adopted a relational model based on a participatory approach that envisages over **100 Workers’ Safety Representatives** and **5 Health and Safety Committees**. (4 territorial and 1 National); According to the agreements stipulated with the trade union organisations, these Committees 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 territorial level (TIM People/Health and safety protection).

COMMITMENT - ACTIVITIES

INITIATIVES

Commitment. The strategy of Digital Transformation adopted by TIM imposes the need to develop new skills and professional figures able to optimally interpret new business opportunities, also making recourse to re-training activities.

Key issues of the skills development strategy in TIM:

- retraining and enhancing professionalism;
- development of digital skills of the entire company population;
- evolution of managerial profiles;
- individual development plans, and for the whole population.

Activities. Initiatives in support of production and dissemination of new content, the creation of networks of relationships internal and external, the exchange of knowledge and generating ideas, principally through **TIM Academy**. Training activities are divided into three macro-categories: management education, evolution of role, specialist and new skills, development and empowerment.

In 2018, through the **TUO portal** (acronym for Trova (Find), Usa (Use) and Organizza (Organise) TIM continued to involve call centre operators in the process of expanding basic knowledge and providing information/training with various initiatives aimed at improving the customer experience (The value chain/Customers).

Commitment. In 2018, TIM consolidated its relationship model with the main stakeholders of the academic world, schools, social and institutional organisations, with the aim of guiding young people, helping implement the university “third mission”, enabling innovation, enhancing and fully utilising talent and disseminating digital culture, also with a view to identifying a pool of qualified candidates in line with annual requirements. These drivers:

- enhancement of internal skills with teachers and testimonies on specific topics;
- professional orientation students in line with the digital skills;
- open innovation opportunities.

At national level, TIM has, on several occasions, outlined the strategic positioning of the company in relation to the main economic and production indicators and the consequent need to identify measures aimed at supporting the recovery of competitiveness, profitability and at improving the quality of services, in order to protect employment, people, and defend the company scope.

Activities. In 2018, TIM focused its efforts on projects to improve the quality of service (TIM around the Customer), on plans for developing and updating the skills of its people to address the digital transformation challenges (TIM Academy), with work-life reconciliation tools (Agile Work from the 2017 agreement with the Trade Unions).

TIM Academy. Since 2014, it has developed an innovative approach to learning and sharing of know-how to support the digitising and cultural and business transformation process.

In summary, the TIM Academy offers **programmes, courses and training**, in classroom settings, online or on-the-job; it promotes the sharing of know-how and skills through **communities, workshops, seminars and think tanks**, with qualified national and international teachers and endorsers; it designs and delivers **new digital learning formats**: web based training, video, webinar, virtual learning and MOOC.

In 2018, as part of the network of knowledge model, a new company community, “**TIMSh@re**”, was introduced with the aim of improving inter-functional sharing and collaboration, especially in areas of high technological innovation.

In 2018 the “JOB Centre” professional re-training project was completed, which since 2016 has offered training courses for people to acquire the skills and knowledge necessary for new roles. In the three-year period 2016/2018, 2,925 people were re-trained.

In Brazil, 6 training and development programmes have been activated, of great impact on people, with various involvement methods.



Partnerships designed and implemented in 2018 with universities and schools were put in place in synergy with TIM’s Employer Branding activities, facilitating dialogue with students and the selection and recruiting process (website/Actions and dialogue/People development).



On 11 June, after extensive discussion, TIM, the National Union Representatives Coordination Unit and the Trade Union Organisations stipulating the National Collective Bargaining Agreement on the guidelines of the 2018-2020 Plan, signed an **agreement at the Ministry of Labour and Social Policies** aimed at supporting the pursuit of business objectives and the management of 4,500 redundancies through non-traumatic and socially sustainable tools.

On 2 February, an **agreement was reached with the union representatives of Managerial personnel** for the achievement of efficiency targets through socially sustainable tools (TIM People/Industrial Relations).



COMMITMENT - ACTIVITIES

INITIATIVES

Key issues. At national level, TIM has, on several occasions, outlined the strategic positioning of the company in relation to the main economic and production indicators and the consequent need to identify measures aimed at supporting the recovery of competitiveness, profitability and at improving the quality of services, in order to protect employment, people, and defend the company scope.

Activities. The agreement provides that the performance bonus is composed of various components that have as indicators objectives seen by the management incentive systems that recognize the input of all the workers to the results.

Commitment. The understanding on agile working reached with the Trade Union Organizations in July marks another step on the road to TIM's digital transformation and represents an additional undertaking by the Parties to achieve the goals of improving productivity, promoting social, economic and environmental sustainability and encouraging work-life balance, with particular attention to family care needs.

Activities. In December 2018, TIM extended the testing of agile work started in September 2017 and expired on 31 December 2018 until April 2019, pending reaching a new agreement with the trade unions.

Commitment. TIM Participações is committed to enhancing and motivating people who work in the company to retain them and create a pleasant, safe and productive environment given the challenging objectives of the digital transformation plan.

Initiatives. In 2018 road shows were held during which the managers presented the results of the 2017 survey. Working groups were organised and action plans were proposed for climate-related priorities and for the most critical areas.

The company and the trade union reached an understanding that determines the structure of the 2017/2019 performance bonus for companies of the TIM Group.

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 Strategic Plan; this body is tasked, inter alia, with analysing the types of services accessible through welfare (TIM People/Industrial Relations).



Discussion between TIM and trade unions on **agile work**, following the agreement reached in July 2017 with the aim of sharing the diffusion of agile work in the Company (TIM People/Industrial Relations).



Brazil. Climate survey in which 95% of employees took part (+ 4% compared to 2017). The general degree of consent of TIM reached 75% (TIM people/Commitment to our people).



COMMITMENT - ACTIVITIES

INITIATIVES

Commitment. Quality and customer experience constitute the fundamental pillars of the path of TIM toward a future “digital”. The customer is at the centre of TIM and of all processes, to improve the quality of service and strengthening of the relationship with the brand.

Activities. TIM has initiated an extensive transformation process to improve the customer experience: “TIM around the Customer” which includes various activities and involves all employees in innovative ways. In 2018, TIM enhanced its Customer Relationship Management model, already oriented towards presence in new digital arenas, through the use of a new social platform for the integrated management of all contact points, also proposing new digital caring channels (Customers/Customer Satisfaction).

In Brazil, TIM Participações, through important investments in the evolution of the digital environment, improved the quality of customer relationship management services (in particular “MyTIMApp”).

Activities. 97% of the questions of joint conciliation discussed and 84.9% of questions discussed at the Co.Re.Com and Chambers of Commerce were settled.

Customer satisfaction is systematically measured in the various moments of the customer journey (purchase of a service, call to customer care, reporting of a fault, post on social media) in particular by **monitoring the Customer Satisfaction Index (CSI)**. In 2018, TIM was the leader in Mobile Consumer and also improved the satisfaction of the fixed network customer.

In Brazil, TIM Participações measures customer satisfaction through three types of surveys, conducted on a national basis through interviews (on consumer customers, the “call centre Satisfaction Survey and the Call Centre Survey) (The value chain/Customers/Customer Satisfaction).



Collaboration with consumer associations (“joint conciliation”) and with the CoRe.Com for the settlement of disputes with customers. In December 2018, the agreement was signed by 22 consumer associations of which 19 registered in the National Consumer Consumers Council chaired by the Ministry of Economic Development.

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 (Users’ Council) for the reduction of complaints in court. TIM participated in the National Forum of Users’ Councils and held the 3rd National Forum of TIM Users’ Councils from which it emerged that the company and its employees are completely committed to satisfying customers through any service channel (The value chain/Customers).



COMMITMENT - ACTIVITIES	INITIATIVES
<p>Key issues: the best 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.</p> <p>Activities. The corrective actions to suppliers with the highest risk, to improve the level of performance.</p>	<p>The sending of a self-assessment questionnaire in terms of sustainability suppliers for greater risk in the qualification phase and periodically suppliers already qualified;</p> <p>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).</p> <p>In Brazil TIM Participações sent a self-assessment questionnaire on sustainability issues to approx. 50% of suppliers. The results will provide an indication for future selection processes.</p> 
<p>Key issues. Verify the level of performance over the sustainability of suppliers and subcontractors common to the TLC operators subscribers.</p> <p>Activities. Definition and implementation of corrective and programmes continuous improvement of suppliers/sub-suppliers involved; specific training programmes for suppliers, also in order to propagate the culture of sustainability.</p>	<p>Joint Audit Cooperation, an initiative which provides for CSR audit activities conducted in the production plants of common suppliers and sub-suppliers based on an agreement signed with another 12 telecommunications operators. 89 audits in 2017, of which 52 on suppliers TIM. (The value chain/Sustainability throughout the supply chain).</p> 
<p>Key issues. Involve suppliers and partners in the TIM ecosystem, improving the level of awareness and knowledge on sustainability issues, awarding a prize to those who have distinguished themselves.</p>	<p>Ecosystem convention with suppliers and partners “TIM let’s network for the future” 13 December with over 100 companies from 15 countries, including Brazil. Six suppliers who distinguished themselves, not only for their contribution to the business, but also for excellence in quality, digital innovation and sustainability were awarded prizes</p> 
<p>Key Issues. Transparency, improving communication and optimisation of operating processes.</p>	<p>Exchange of information and documentation with suppliers via the “Vendors hub” portal, which in 2018 had around 4,312 enabled sellers. (The value chain/ Sustainability throughout the supply chain) and (http://www.telecomitalia.com/tit/it/vendorshub.html).</p> 
<p>Commitment. TIM has undertaken with its industrial partners to give an acceleration toward the development of an open ecosystem dedicated to the research and the creation of innovative projects enabled by mobile technology of the future for solutions that may be used by citizens and industries in the future “termination (units) Society”.</p> <p>Activities. Three important initiatives were launched in 2017 - Turin 5G, San Marino 5G and Bari-Matera 5G - to provide these municipalities with 5G radio mobile coverage.</p>	<p>TIM and Ericsson strengthen their collaboration for the development of the 5G technology with a MOU intended to accelerate the evolution toward the new network. The initiative joins schedule “5G for Italy” started by the two companies in 2016 for the realisation of innovative projects enabled the technology 5G. (2/3/2017) (http://www.telecomitalia.com/tit/it/archivio/media/note-stampa/corporate/2017/TIM-Ericsson.html).</p> 

COMMITMENT - ACTIVITIES

INITIATIVES

Key issues. Updated information, financial and non-, on the Group, with the greatest attention to the needs of all the various categories of people: main stream, SRI, retail shareholders.

Commitment. Broaden the basis of investors.

Key issues. Evolution of the Domestic competitive environment, in the face of new operators in mobile and fixed wholesale;
Plan for separation of the fixed access network, and its potential impact on operational and financial dynamics;
Financial discipline in the management costs and toward the purchases of video content;
Evolution of regulation, in the face of growing infrastructural competition and a consequent geographical differentiation of TIM's positioning;
5G auction, its results and the possibilities of managing the roll-out costs of the new technology;
Growth of customers served with FTTx technology, convergent services and the penetration of Business customers in ICT services;
Digitization as an element of operational efficiency, service improvement and sales support;
Important opportunities to reduce the total costs offered by the decommissioning of legacy components of the network;
Trend of CAPEX and their correct sizing, offering important growth opportunities for net cash generation;
Continuous development of TIM Participações and its positive results;
Possible support for the Group's deleverage from inorganic options;
The level of attention on governance issues and on the possible settlement of contrasts emerging among the main shareholders is always very high.

Financial communication online, through the Group **website**

<http://www.telecomitalia.com/tit/it/investors.html>) and "TI Alw@ys on" shareholders' club. (<http://www.telecomitalia.com/tit/it/investors/shareholders/individual-shareholders/club-tialwayson.html>) provides important information to the individual investors and the general public (6,145 shareholders active in 2018). (The TIM Group/Stakeholders engagement).



In 2018, the Investor Relations Department has managed over **500 meetings** including: conference calls (4 events on the occasion of the annual and quarterly results), road shows, meetings at the Group's institutional offices (reverse road shows), meetings (group and individual) mainly with shareholders, participation in the main TLC sector conferences. The Group. (The TIM Group/Stakeholders engagement) (<http://www.telecomitalia.com/tit/it/investors/presentations.2017.html>)

COMMITMENT - ACTIVITIES

INITIATIVES

Key issues. Privacy and protection of personal , discipline audiovisual, the fight against corruption, protecting minors, the digitization of industry through the development of new network technologies, the protection of authors' rights.

Activities. The activities include participation in the working group set up by the European Commission to draw up the 5G Action Plan.

Commitment. Extend its knowledge of digital tools and increase the number of people in possession of digital skills qualities are the objectives of the European Digital Agenda. TIM, as a country company and making the reference SDGs its own, in collaboration with the institutions, is engaged on this issue through the dissemination of ICT technologies in schools and processes didactic.

TIM's commitment is also expressed through the initiatives of the TIM Foundation and Instituto TIM in Brazil in particular to improve the learning of STEM disciplines (The value chain/Initiatives consistent with the core business).

Activities. TIM and TIM Participações, the two Group companies which have joined the Global Compact, draw up an annual "Communication on Progress", which reports on progress achieved by the companies in promoting and applying the 10 core principles of the Global Compact.

The topics discussed during the two webinars organized by the Peer Learning Group on Business and Human Rights in 2018 were the following::

- " Internal and external awareness building on modern slavery";
- " Meeting the transparency requirements and effectively communicating Human Rights";

Activities. TIM monitors and analyses the complaints of any violations of Human Rights that come through the portal whistleblowing and in 2018 continued the preparation of a specific procedure, "Management of complaints of any violations of Human Rights by TIM Group".

In the last two years, TIM has also implemented:

- human rights due diligence
- "Respecting Human Rights in the Group" policy;
- information and training on Human Rights

In 2018, TIM Participações made a version of the localised course available on the TIM e-learning platform.

Individual and team meetings with representatives of the national institutions (Commissions in the Chamber of Deputies and the Senate, parliamentary hearings) and international on issues of relevant business for the Group (for example participation with platforms for discussion, public consultation, workshops, meetings of the Committees, and meetings with the EU Commission, with Agencies or work groups and studies specialist such as, for example, the Centre for the European Policy study). The placement toward institutions and bodies takes place through individual actions and/or with the participation of other operators principally through **ETNO** which has TIM as a member of the Board (The TIM Group/Governance and sustainability management and communities/Research and development).



Since 2015, TIM has participated as Founding Sponsor partner, now Benefactor, in **Programma il Futuro** (Programme the Future), a MIUR initiative, implemented by the CINI (National Inter-University IT Consortium) that favours the introduction of coding and computational thinking in the educational programmes of schools of all levels.

Within the context of the **MOU signed with MIUR**, since 2016, TIM promotes **ScuolaDigitaleTIM**. For the 2018/2019 school year, the project aims to introduce secondary school children to new technologies, the Internet of Things and Robotics. During the school year, 3,000 students will be involved in the classroom, in addition to all those who will follow the online teaching on scuoladigitale.tim.it.



TIM and TIM Participações adhere to the related **Global Compact** national networks.

Since 2012, TIM has been a member of the **Peer Learning Group on Business and Human Rights**, set up within Global Compact Network Germany.

(Human Rights and in website/relationship with the Institutions and the market)



COMMITMENT - ACTIVITIES

INITIATIVES

Commitment. At the local level, TIM has an ongoing dialogue with the institutions on general topics related to the electronic communications sector, particularly regarding the development of the ultra broadband networks and of the 5G standard and the reduction of the digital divide. From 2017, thanks to the safeguards stable over the territory, the Company has been able to strengthen and enhance dialogue.

Activities. Between the activities performed, signing protocols with Local Organizations, to accelerate the development of access networks of new generation; forms of collaboration with the Common to promote the spread and the learning of new technologies; agreements, protocols and partnerships with the local public administrations for the diffusion of innovation and digital culture; edition 2018 of 20 Policy Reports regional 'state of the art and on the evolution of the regional policies regarding digital services, network infrastructure, digital agenda and smart cities.

Key issues. Network development and population coverage, digital inclusion and social, privacy, protect consumers.

Activities. Projects Instituto TIM in collaboration with the departments: TIM Faz Ciência (TIM Does Science); TIM Tec; Mapas Culturais (Cultural Maps).

Interviews, direct shareholdings in the workshops, the meeting of the regional commissions and the work groups specialist, joint projects with local authorities. TIM promotes the constitution of internal committees of joint control, consisting of representatives of all the parties involved, according to the specific needs of the project with the presence of stakeholders without any kind of discrimination (The value chain and on sustainability website).



In Brazil. Dialogue initiatives with the Government, with Congress and at the local level (**schedule of meetings individual and collective, debates, hearings and public consultation**).

The dialogue between TIM and institutions is supported by the **activity of Instituto TIM**, through **partnerships designed with the Government**, particularly with the Ministry of Education and the Ministry of Culture; Instituto TIM operates for social progress promoting studies matters mathematician scientific and innovation among children and teenagers and developing free solutions that contribute to social policies (The value chain and on-site web Sustainability and <https://en.institutotim.org.br>).



COMMITMENT - ACTIVITIES	INITIATIVES
<p>Commitment. TIM undertook to provide answers personalised and prompt to customers and has implemented an internal constant oversight of the customer and also to ensure, in particular, for the constant monitoring of the various phases of the supply of regulated services.</p>	<p>Continuing dialogue with the OAO (Other Authorised Operators) on commercial issues and related to the implementation of the Undertakings, also through newsletter and portal on which are performed initiatives of involvement and counting the satisfaction (Sustainability website and www.wholesale.telecomitalia.com).</p>  
<p>Commitment. TIM from his contribution to Authorities and Institutions for the governance of the process regulatory issues deemed tangible assets for the growth of the value of the Company, in order to reach a regulation simple, effective and symmetric. The constant discussions with AGCOM and the institutions ensure that TIM gathers their opinions, supplying transparent, reliable responses, and anticipates events, creating and exploiting the best opportunities for the Company.</p>	<p>Discussion and ongoing dialogue with the Authority (AGCM and AGCOM in Italy, Anatel and CADE in Brazil) and with Trade Associations Italian companies, Brazilian and international (Sustainability website).</p> 

2017 and 2018 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 2018 and in relation to only stakeholder Customers for the year 2017¹.

TIM S.p.A. – Customers²

(*) Status Target: ● achieved ● not achieved

Area of reference	Indicator	Unit of measurement	Target 2017	Actual figure 2017	Status target 2017	Target 2018
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	100	● reached	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	● reached	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	0,63	● reached	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	0.39	● reached	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	97.7	● reached	95
CUSTOMERS – FIXED INTERNET	Activation time for broadband internet access services – Average time of supply (active telephone lines)	Days	9	4	● reached	9
CUSTOMERS – FIXED INTERNET	Activation time for broadband Internet access services – Percentage of valid orders completed within the date agreed with the customer (telephone lines transferred from another operator on which a broadband Internet access service was already in operation)	%	95	98.8	● reached	95
CUSTOMERS – FIXED INTERNET	Activation time for broadband Internet access services - Average supply time (telephone lines transferred from another operator on which a broadband Internet access service was already in operation)	Days	15	10	● reached	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	6.5	● reached	12
CUSTOMERS – FIXED INTERNET	Broadband Internet access service faults – Average repair time	Hours	26	17	● reached	26
CUSTOMERS – FIXED INTERNET	Broadband Internet access service faults - Percentage of fault repairs completed within the maximum time contractually established	%	92	95.6	● reached	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	%	1.4	0.4	● reached	1.4

¹ The actual figures of the above mentioned objectives for 2018 will be available in July 2019 at tim.it

² The full list of quality indicators, and the respective objectives for them, is available at tim.it and timbusiness.it. 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.

TIM S.p.A. – Other stakeholders

Area of reference	Indicator	Unit of measurement	Target 2018	Final figures 2018	Status target 2018
HUMAN RESOURCES TRAINING	Training on health, safety and the environment ¹	Hours of training	90,000	145,358	● reached
HUMAN RESOURCES TRAINING	Number of training hours per capita ¹	Hours of training Per capita	27	19.28	● reached
HUMAN RESOURCES TRAINING	Training - Coverage (percentage of employees who participated in at least one training session from the total population)	%	80	100.4	● reached
HUMAN RESOURCES ACCIDENTS	Accidents per 100 workers	Number	1.05	0.98	● reached
ENVIRONMENT - ENERGY	Eco-efficiency indicator ²	bit/joule	12,000	11,121	● not reached
ENVIRONMENT - ENERGY	Self-production of cogeneration energy	GWh	130	130	● reached

¹ The data includes classroom, on-line and on-the-job training.

² The indicator is calculated on the Domestic BU and Persidera and Olivetti Group operations are not included. For more information on the eco-efficiency indicator see Environment/Energy Chapter.

TIM Brasil

Area of reference	Indicator	Unit of measurement	Target 2018	Final figures 2018	Status target 2018
HUMAN RESOURCES	Training - Coverage (percentage of own, outsourced and intern employees who participated in at least one training session from the total population)	%	* Not applicable	88%	* Not applicable
HUMAN RESOURCES	Sustainability training (percentage of the total population of own, outsourced and intern employees who participated in at least one training session on sustainability issues)	%	90%	91%	● reached
THE ENVIRONMENT	Collection of mobile phones, batteries and other accessories for recycling	Tons	1	** Not applicable	** Not applicable
THE ENVIRONMENT	Relationship between recycled waste and total waste generated in offices	%	13	13	● reached
THE SUPPLY CHAIN	Suppliers assessed with sustainability criteria	Number	350	831	● reached

* From 2018, the training figure is shown as total population coverage and no longer as the number of hours taken.

** The collection programme for mobile phones, batteries and other devices was not implemented in 2018.

2019 and multi-annual targets

The objectives for 2019 are shown below.

TIM S.p.A. – Customers¹

Area of reference	Indicator	Unit of measurement	Target 2019
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 (telephone lines transferred from another operator on which a broadband Internet access service was already in operation)	%	95
CUSTOMERS - FIXED INTERNET	Activation time for broadband internet access services - Average supply time (telephone lines transferred from another operator on which a broadband Internet access service was already in operation)	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

¹The full list of quality indicators, and the respective objectives for 2018, is available at tim.it. 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.

TIM S.p.A. – Other stakeholders

Area of reference	Indicator	Unit of measurement	Final figures 2018	Target 2019
HUMAN RESOURCES TRAINING	Training on health, safety and the environment ¹	Hours of training	145,358	90,000
HUMAN RESOURCES TRAINING	Training - Training hours per capita ¹	Hours of training Per capita	29.28	30
HUMAN RESOURCES TRAINING	Training - Coverage (percentage of employees who participated in at least one training session from the total population)	%	100.4	98
HUMAN RESOURCES ACCIDENTS	Accidents per 100 workers	Number	0.98	0.90
ENVIRONMENT - ENERGY	Eco-efficiency indicator ²	bit/joule	11,121	13,300
ENVIRONMENT - ENERGY	Self-production of cogeneration energy ³	GWh	130	150

¹ The data includes classroom, on-line and on-the-job training.

² The eco-efficiency indicator is calculated on the Domestic BU and Persidera and Olivetti Group operations are not included.

³ From 2014 the target was extended to the entire Domestic BU. In relation to this note that only TIM S.p.A. currently has cogeneration plants. See the Multi-annual Targets table.

Italy- Digital Inclusion

Indicator	Unit of measurement	Final figures 2018	Target 2021
Next Generation Plan coverage (fixed telephony) FTTC (*)	%	79.8	81
Next Generation Plan coverage (fixed telephony) FTTH	%	14.2	22

(*) The percentage is determined by the ratio between the number of properties connected with “cabinets” reached by access optical fibres (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.

Domestic BU – Environment

Area of reference	Indicator	Unit of measurement	Target 2018	Final figures 2018	Target Status	Target 2019	Target 2020	Target 2021
THE ENVIRONMENT ENERGY	Total electricity procured and produced	GWh	1,785	1,863	●	1,740	1,730	1,720
THE ENVIRONMENT ENERGY	Self-production of cogeneration energy	GWh	130	130	●	150	170	170
THE ENVIRONMENT ENERGY	Eco-efficiency indicator	bit/joule	12,000	11,121	●	13,300	15,500	17,700
THE ENVIRONMENT ATMOSPHERIC EMISSIONS	Reduction of CO2 emissions from the purchase and production of electricity in relation to 2013	t	89,000	52,600	●	110,000	111,000	115,000

TIM Brasil – 2019 Targets

Area of reference	Indicator	Unit of measurement	Final figures 2018	Target 2019
HUMAN RESOURCES	Training - Coverage (percentage of own, outsourced and intern employees who participated in at least one training session from the total population)	%	88	80
HUMAN RESOURCES	Sustainability training (percentage of the total population of own, outsourced and intern employees who participated in at least one training session on sustainability issues)	%	91	90
THE ENVIRONMENT	Collection of mobile phones, batteries and other accessories for recycling	Tons	0*	0.5
THE ENVIRONMENT	Relationship between recycled waste and total waste generated in offices	%	13	13
THE SUPPLY CHAIN	Main suppliers assessed with sustainability criteria.	%	n.a. ¹	85

* The program to collect mobile phones, batteries and other accessories to be recycled is under review.

¹ Not available as this is a new objective.

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

Legislative Decree 254/2016 topic	Material topic 2018 TIM	Results		Risks identified	Policies adopted
		Topic Disclosure	page		
Environmental	Reducing the environmental impact of TIM's operations	305-1 305-2 305-3 305-4 305-5 305-6 305-7	50, 52	See table page 28	
Social	Developing digital infrastructures with next-generation networks	203-1 203-2 413-1	102, 110, 130 110, 130 96	See table page 28	
	Service quality (CSI)	203-1 203-2 417-1 417-2	102, 110, 130 110, 130 124 125		
	Safeguarding privacy and personal data protection and security	418-1	129		
	Online protection of minors (cyber bullying, child pornography, gambling)	102-2b	120, 121		
	Integrating economic, social and environmental aspects in governance and the strategic plan	413-1 413-2	96 96		
	Stakeholder engagement				
	Develop the resilience of regions to disasters	203 413-2	102, 110, 130 96		
Employee issues	Managing the workforce and employment development	401-1 401-2 401-3 402-1	59, 82, 83 78 59, 84, 85 69	See table page 28	
	Managing the health and safety of workers	403-1 403-2 403-3 403-4	72 72, 73, 86 72, 73, 141 72, 74		
	Developing personnel competencies	404-1 404-2 404-3	66, 87 62, 63, 64 62, 63, 64		
	Reduce inequality and favour equal opportunities in the company	405-1 405-2 406-1	60, 61 92 141, 145		
Respect of human rights	Promoting and safeguarding human rights	406-1 407-1 408-1 409-1 410-1 412-1 412-2 412-3	141, 145 134, 136, 142 69, 136, 141 69, 136, 141 135 141 143 133, 134	See table page 28	
Fight against corruption	Correctness of corporate conduct	205-1 205-2 205-3 206-1 415-1 419-1	19 21 20 21 21 21, 125, 126	See table page 28	

Waiting for the feedback of
GRI

[GRI 102-55] **GRI CONTENT INDEX**
for “In accordance”- Comprehensive
GENERAL DISCLOSURES

GRI Standard	Disclosure	Page number(s) and URL(s)	Omission
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GRI 102: General Disclosures 2016			
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	102-1	Name of the organization	10
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	102-5	Ownership and legal form	10, 11
	102-6	Markets served	10
	102-7	Scale of the organization	10, 12, 13
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	102-13	Membership of associations	18
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	102-14	Statement from senior decision-maker	3
	102-15	Key impacts, risks, and opportunities	27
Ethics and integrity			
	102-16	Values, principles, standards, and norms of behavior	18
	102-17	Mechanisms for advice and concerns about ethics	16
Governance			
	102-18	Governance structure	14, 17
	102-19	Delegating authority	14, 15, 17
	102-20	Executive-level responsibility for economic, environmental, and social topics	15, 17
	102-21	Consulting stakeholders on economic, environmental, and social topics	15, 18
	102-22	Composition of the highest governance body and its committees	14
	102-23	Chair of the highest governance body	15
	102-24	Nominating and selecting the highest governance body	14
	102-25	Conflicts of interest	15
	102-26	Role of highest governance body in setting purpose, values, and strategy	15, 17
	102-27	Collective knowledge of highest governance body	14
	102-28	Evaluating the highest governance body's performance	15
	102-29	Identifying and managing economic, environmental, and social impacts	15, 27
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GRI Standard	Disclosure	Page number(s) and URL(s)	Omission
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	102-35	Remuneration policies	16, 17
	102-36	Process for determining remuneration	16
	102-37	Stakeholders' involvement in remuneration	16, 67
	102-38	Annual total compensation ratio	67 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	67 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.
Stakeholder engagement			
	102-40	List of stakeholder groups	22
	102-41	Collective bargaining agreements	69
	102-42	Identifying and selecting stakeholders	22
	102-43	Approach to stakeholder engagement	22, 115, 162
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Reporting practice			
	102-45	Entities included in the consolidated financial statements	6, 10
	102-46	Defining report content and topic Boundaries	24
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	102-48	Restatements of information	6, 10
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GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	19
	205-2	Communication and training about anti-corruption policies and procedures	21
	205-3	Confirmed incidents of corruption and actions taken	20
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	302-2	Energy consumption outside of the organization	47
	302-3	Energy intensity	48
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	103-3	Evaluation of the management approach	38, 51
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	50
	305-2	Energy indirect (Scope 2) GHG emissions	50
	305-3	Other indirect (Scope 3) GHG emissions	50
	305-4	GHG emissions intensity	52
	305-5	Reduction of GHG emissions	50
	305-6	Emissions of ozone-depleting substances (ODS)	50
	305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	50 Not Applicable. Nitrogen oxides (NO _x), sulfur oxides (SO _x) and other air emissions from TIM Group's operations and activities are negligible and therefore not reported.

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GRI Standard	Disclosure	Page number(s) and URL(s)	Omission
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REPORT OF THE INDEPENDENT AUDITORS

[GRI 102-56]



TIM SPA

**INDIPENDENT AUDITOR'S REPORT ON THE
CONSOLIDATED NON FINANCIAL STATEMENT
PURSUANT TO ARTICLE 3, PARAGRAPH 10, OF
LEGISLATIVE DECREE NO. 254/2016 AND ARTICLE
5 OF CONSOB REGULATION NO. 20267 OF JANUARY 2018**

YEAR ENDED 31 DECEMBER 2018

Independent auditor's report on the consolidated non-financial statement

pursuant to article 3, paragraph 10, of Legislative Decree No. 254/2016 and article 5 of CONSOB Regulation No. 20267

To the Board of Directors of TIM SpA

Pursuant to article 3, paragraph 10, of Legislative Decree No. 254 of 30 December 2016 (the "Decree") and article 5 of CONSOB Regulation No. 20267, we have performed a limited assurance engagement on the Sustainability Report - consolidated non-financial statement of TIM SpA and its subsidiaries (hereafter the "Group") for the year ended 31 December 2018 prepared in accordance with article 4 of the Decree and approved by the Board of Directors on 21 February 2019 (hereafter "NFS").

Responsibility of Management and of those charged with Governance for the NFS

Directors are responsible for the preparation of the NFS in accordance with article 3 and 4 of the Decree and with the GRI-Sustainability Reporting Standards defined in 2016, hereafter the "GRI Standards", identified as the reporting standards and according to the principles of AA1000APS (AccountAbility Principles Standard).

Directors are responsible, in the terms prescribed by law, for such internal control as management determines is necessary to enable the preparation of a NFS that is free from material misstatement, whether due to fraud or error.

Directors are responsible for identifying the content of the NFS, within the matters mentioned in article 3, paragraph 1, of the Decree, considering the activities and characteristics of the Group and to the extent necessary to ensure an understanding of the Group's activities, its performance, its results and related impacts.

Directors are responsible for defining the business and organisational model of the Group and, with reference to the matters identified and reported in the NFS, for the policies adopted by the Group and for the identification and management of risks generated and/or faced by the Group.

The Board of Statutory Auditors is responsible for overseeing, in the terms prescribed by law, compliance with the Decree.

PricewaterhouseCoopers SpA

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Auditor's Independence and Quality Control

We are independent in accordance with the principles of ethics and independence set out in the *Code of Ethics for Professional Accountants* published by the *International Ethics Standards Board for Accountants*, which are based on the fundamental principles of integrity, objectivity, competence and professional diligence, confidentiality and professional behaviour. Our audit firm adopts the *International Standard on Quality Control 1 (ISQC Italy 1)* and, accordingly, maintains an overall quality control system which includes processes and procedures for compliance with ethical and professional principles and with applicable laws and regulations.

Auditor's responsibilities

We are responsible for expressing a conclusion, on the basis of the work performed, regarding the compliance of the NFS with the Decree, with the GRI Standards and with the process suggested by the principles of the AA1000APS. We conducted our engagement in accordance with "*International Standard on Assurance Engagements ISAE 3000 (Revised) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information*" (hereafter "*ISAE 3000 Revised*"), issued by the *International Auditing and Assurance Standards Board (IAASB)* for limited assurance engagements. The standard requires that we plan and apply procedures in order to obtain limited assurance that the NFS is free of material misstatement. The procedures performed in a limited assurance engagement are less in scope than those performed in a reasonable assurance engagement in accordance with ISAE 3000 Revised ("*reasonable assurance engagement*") and, therefore, do not provide us with a sufficient level of assurance that we have become aware of all significant facts and circumstances that might be identified in a reasonable assurance engagement.

The procedures performed on the NFS were based on our professional judgement and consisted in interviews, primarily with company personnel responsible for the preparation of the information presented in the NFS, analysis of documents, recalculations and other procedures designed to obtain evidence considered useful.

In particular, we performed the following procedures:

1. analysis of the relevant matters reported in the NFS relating to the activities and characteristics of the Group, in order to assess the reasonableness of the selection process used, in accordance with article 3 of the Decree and the with the reporting standards adopted;
2. analysis and assessment of the criteria used to identify the consolidation area, in order to assess their compliance with the Decree;
3. comparison of the financial information reported in the NFS with those reported in the Group's Consolidated Financial Statements;
4. understanding of the following matters:
 - business and organisational model of the Group, with reference to the management of the matters specified by article 3 of the Decree;
 - policies adopted by the Group with reference to the matters specified in article 3 of the Decree, actual results and related key performance indicators;
 - main risks, generated and/or faced by the Group, with reference to the matters specified in article 3 of the Decree.

With reference to those matters, we compared the information obtained with the information presented in the NFS and carried out the procedures described under point 5 a) below;

5. understanding of the processes underlying the preparation, collection and management of the significant qualitative and quantitative information included in the NFS. In particular, we held meetings and interviews with the management of TIM SpA and with the personnel of Sparkle SpA, Olivetti SpA, TIM Participações S.A., TIM S.A. e TIM Celular S.A. and we performed limited analysis of documentary evidence, to gather information about the processes and procedures for the collection, consolidation, processing and submission of the non-financial information to the function responsible for the preparation of the NFS.

Moreover, for material information, considering the activities and characteristics of the Group:

- at holding level
 - a) with reference to the qualitative information included in the NFS, and in particular to the business model, the policies adopted and the main risks, we carried out interviews and acquired supporting documentation to verify their consistency with available evidence;
 - b) with reference to quantitative information, we performed analytical procedures as well as limited tests, in order to assess, on a sample basis, the accuracy of consolidation of the information;
- at Business Unit Domestic (Italian companies) level, analysis of the procedures and policies in place and of the consistency of the sustainability management model compared to the principles of the UNI ISO 26000, amongst which: governance, human rights, labour relations, working conditions and environment;
- for the following companies, Sparkle SpA, Olivetti SpA, Tim Participações S.A., Tim S.A. e Tim Celular S.A., which were selected on the basis of their activities and their contribution to the performance indicators at a consolidated level, we carried out site visits during which we met local management and gathered supporting documentation regarding the correct application of the procedures and calculation methods used for the key performance indicators.

Conclusions

Based on the work performed, nothing has come to our attention that causes us to believe that the NFS of TIM Group as of 31 December 2018 has not been prepared, in all material respects, in compliance with articles 3 and 4 of the Decree, with the GRI Standards and with the process suggested by the principles of AA1000APS.

Milan, 8 March 2019

PricewaterhouseCoopers SpA

Francesco Ferrara
(Partner)

Paolo Bersani
(Authorised signatory)

This report has been translated from the Italian original solely for the convenience of international readers.