Digital culture

Alongside its infrastructure project, TIM has promoted various initiatives to improve digital literacy, the technological equipment used by the population and the use of services that make the most of the potential of the Internet.

For this purpose, TIM has used a variety of strategies (from conferences to field trials and financing start-ups) in order to explore and promote the potential applications of digital technology in many areas of social and economic interest: schools, services provided to citizens by Public Administration, applications aimed at people with disabilities, innovative solutions targeted at businesses, industrial areas, cities.

One example of these is sponsored initiatives aimed at increasing awareness of solutions designed to improve the efficiency of public administration processes: from electronic invoicing to graphometric signatures, from digital identity services to administrative and health certification. E-Government can also cut the cost of bureaucracy. **[G4-EC8b]** It is not surprising that the EC has identified the launch of E-government Services as one of the main objectives in the implementation of the Digital Agenda.

[G4-EC8b] Digital skills have a crucial role to play in our society and have been 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.

[G4-DMA Indirect Economic Impacts] In this respect as well, 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 IC technologies in schools, which become key enablers in the development of new skills. 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. A recent report prepared by the European Commission shows that the presence of Internet-connected computers is a critical factor at all levels of schooling in Italy.

The Group, moreover, looks favourably on and, where appropriate, supports social, cultural and educational initiatives aimed at the advancement of the individual and the improvement of living conditions.

[G4-DMA Local Communities]

Material issues in this chapter:
- Innovation management
- network coverage and Disaster Recovery
- anti-corruption programmes

Relevant company policies:
Code of Ethics and Conduct of the TIM Group, Human Rights Policy, Anti-Corruption Policy, Internal Control Reporting Procedure, Board of Auditors' Reporting Procedure, TIM Group Guidelines for voluntary contributions to the community, Guidelines concerning the relations between TIM and Local Administrations and other Local Entities, Guidelines concerning stakeholder engagement in TIM, available at telecomitalia.com

Effectiveness and monitoring:
in order to monitor the effectiveness of management processes and ensure the monitoring required by business procedures and internal control structures, the Company uses some numerical KPIs. This chapter sets out the ones that relate to training on anti-corruption

procedures and on corruption uncovered in the Company and among its suppliers. Also important are the KPIs that relate to local broadband infrastructure coverage, as set out in the *Digitisation, connectivity and social innovation* chapter.

The following table summarises the Group's community investment strategy, which is also planned according to the inclusion and materiality principles of the AccountAbility 1000 standard (see Note on methods).

MACRO AREAS OF INTERVENTION	PROJECT IDENTIFICATION	PROJECT IMPLEMENTATION
The two main areas of intervention as regards investment in the community are the following: - voluntary activities consistent with the Group's core business, associated with the provision of ICT services[1]; - activities aimed at the general development of the community mainly including the activities of the Fondazione TIM.	TIM identifies the projects to be implemented by the following means: - consultation with the stakeholders and direct contact with civil society organisations; - partnership projects with stakeholders and associations; - benchmarking against the other European TLC operators; - involvement in industry associations; - sharing knowledge of industry-related issues with the other Group Functions; - external lobbying in response to social emergencies (e.g. earthquakes).	Each project is implemented in 4 stages: - planning: which identifies the objectives to be achieved, the beneficiaries of the project, the timescales of the individual activities, the overall duration of the initiative, the methods used to monitor the project and the budget; selection - through public tenders; - by direct decision of the Company, following the stakeholder, consultation process, consistent with the guidelines for voluntary contributions to the Community; management: - normally administered through partnerships or framework agreements. Sometimes cash disbursements are made, leaving the management of the activity to the beneficiary organisation/ association; Control: - takes place in different ways according to the specific features of the individual projects.

In the projects they implement with Communities, the Group companies interact with:
- civil society: all citizens and people with special needs (young people, elderly people, disabled people, etc.), their representative associations and non-profit organisations in general;
- institutions: local authorities and central, national and supranational institutions;
- university and research institutions;
- traditional media and social media.

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[1] In this chapter, only those products/services provided at no charge are reported, while those which, although they have a significant impact on the community, are provided for payment, are included in the Digitisation, connectivity and social innovation chapter.

[2] The guidelines for voluntary contributions to the community are available on the telecomitalia.com, website, sustainability section, under codes and policies, environmental and social policies.

RELATIONS WITH LOCAL COMMUNITIES

[G4-DMA Local Communities] TIM undertakes on a daily basis to ensure that its relations with public administration and local government bodies are lasting and satisfactory, in the belief that this is the only way to create the conditions for both parties to grow, allowing local authorities to improve the quality of life of their citizens and TIM to achieve its business objectives.

In order to achieve this, TIM prioritises respect for the rights of local communities in its operations and offers to provide solutions suited to the needs expressed by local authorities on issues related to communication technologies, identifying requirements that arise spontaneously and informing local authorities about technological innovations that can improve quality of life and the dissemination of the digital cultur.

TIM has a central department entirely dedicated to managing relations with local authorities which, amongst other things, coordinates relations between local offices and local authorities, particularly through the "local accounts". Furthermore, working with other relevant sectors in dealing with specific issues, this central department:
- determines the criteria used to select the local authorities with which to establish relations, and the ways in which these relations are to be managed;
- assesses the risks and opportunities arising from such relations;
- establishes priorities;
- contributes to drawing up agreements with local authorities;
- listens systematically to all requests and reports from local authorities and directs them correctly to the relevant departments within TIM;
- organises listening sessions and information meetings;
- supports the other departments of TIM if they need to implement a project that has a local impact;
- organises sessions with local accounts to share information about relevant matters;
- performs a facilitating role for the implementation of projects.

As the primary mission of TIM is to supply ICT services, specific attention is paid to organisations that are involved in these services, in particular those dealing with:
- upgrading and developing networks;
- improving public ICT services;
- broadband coverage;
- digital inclusion of a social type;
- implementing the Digital Agenda;
- management of public funds;
- development of an urban local development agenda.

Joint projects between TIM and local authorities are managed in a way that specifies 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, in particular without gender discrimination.
In full compliance with the principles of transparency and accountability, TIM responds flexibly to requests, regardless of how they are received.

[G4-SO1] Given the ubiquity of its network, the TIM Group has relations with local authorities in all regions and always assesses the impacts of its operations and development plans,

regardless of the type of intervention, which in any case is always carried out in full compliance with current legislation and with the needs of local communities.

[G4-SO2] 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 authorities, e.g. regarding aerial installation sites. In Brazil, in particular, environmental protection institutions are regularly consulted when deciding on where radio base stations should be positioned and multifunctional structures are used which improve the data transmission quality and can be used for public lighting and video surveillance at the same time[1].

DIGITAL CULTURE PROJECTS

As already described, digital skills have a crucial role to play in our society and have been 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 EC. The fundamental problem is that students today are "digital natives" who were born and raised with the new technologies, while schools educating them are far behind in the use of technologies and multimedia teaching tools.

The digital divide between those who effectively have access to the new information technologies and those who are excluded unfortunately continues to be wide even in school environments, indicating a concerning disparity between current teaching and learning methods. The most obvious effect of this situation is that traditional teaching systems are becoming more and more incapable of attracting young people who are used to looking beyond textbooks and are fascinated by whatever allows them to communicate directly with the topic in hand.

Digital teaching is offered to teachers as an active teaching strategy that can enhance the learner's involvement and test him in a more "real" environment, combining knowledge with know-how in a way that has not been widely tested in the conventional schooling model.
Education that uses the new technologies, combining them with traditional methods, provides teachers and students with the instruments that can pave the way to innovation, necessary for social and technological development in this 21st century.
ICT companies offer instruments for work, sharing and cooperation, allowing teachers to "provide education" in an integrated manner while enhancing the skills required for independent learning. In this context, the support that TIM can provide towards ensuring the evolution of Italian schools is clear and evident.

TIM is participating, as the Founding Sponsor partner, in **Programme the Future**, un'iniziativa del MIUR che favorisce l'introduzione del pensiero computazionale e del coding nei programmi didattici delle scuole di ogni ordine e grado. Il progetto è attuato dal CINI (Consorzio Interuniversitario Nazionale per l'Informatica) e l'Azienda supporta tutte le attività attraverso tre tipologie d'intervento: sostegno economico, comunicazione e volontariato d'impresa, con oltre 400 dipendenti volontari che offrono collaborazione e attività di tutoraggio a docenti e studenti. In affiancamento a questo progetto l'iniziativa **TIM4Coding**a MIUR initiative that favours the introduction of computational thought and coding in the educational programmes

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[1] TIM Brasil has launched the Biosite, a metal pole that supports all the equipment needed to install a Radio Base Station inside its own structure as better explained in the Environmental Protection chapter.

of schools of all levels. The project is implemented by CINI (Consorzio Interuniversitario Nazionale per Informatica - National Inter-University Consortium for Information Technology) and the Company supports all the activities in three ways: economic support, communication and company volunteering, with over 400 voluntary employees offering collaboration and tutoring to teachers and students. Alongside this project, the TIM4Coding initiative promotes the teaching of the "Coding Hour" in schools as well as at TIM#Wcap accelerators, contributing to training the professionals of the future, including through collaboration with TIM ambassadors Furthermore, in 2016 TIM launched the Digital **Learning with TIM** project in collaboration with the Ministry of Education, Universities and Research (MIUR) to bring teachers closer to the digital world and its instruments, offering them an all-encompassing vision of the technological applications that add value and new opportunities to the teaching profession. This is a two year project that involves teachers from schools of all types and levels in 18 Italian regions. In Lazio, which was the first region included at the beginning of the 2016-2017 school year, the initiative involved approximately 500 teachers.

Digital education is also provided in environments and by means which are not necessarily connected to the school system, precisely in order to attract a broader and more diverse audience. This is why TIM produced Start! in 2016. This is a television programme that tells how digital and innovation can make a real contribution to improving people's lives. A factual entertainment programme presented by Francesco Mandelli and Federico Russo over 10 shows that were broadcast on Rai 2, allowing viewers to discover many innovative and useful startups. This first edition of the program was very successful with the public, with more than 600k viewers per week and an average share of 6.4%. Internet safety is promoted through participation in various associations such as the ICT Coalition for children online, which includes 25 ICT companies for the exchange of best practices between companies and the development of policies and solutions to ensure that children can use internet in a secure environment. In 2016, the general principles of the association were updated. The ICT Coalition organizes a biannual forum, attended by the most significant European and international companies and institutions, certain NGOs and other interest groups. In addition to the ICT coalition, the Group participates actively in the meetings and work of the Alliance to better protect minors online, a platform launched by the European Commission which works with the main players and representatives of the digital sector for the compilation of a code of conduct. The initiative was launched in September and will conclude its first phase in February 2017 with the signing of the statement of purpose, a type of declaration of intent that will be signed by the companies that participated in the work.

Covering these same issues, the CSV Department has launched the **Navigare Sicuri,**[Surf safe] project, a digital platform (app and website) which is structured along 3 macro areas: a children's section which aims to make the very young (ages 8 - 12) aware of digital risks while conveying the ten rules to follow when using internet in a playful and appealing way; a section for parents, aiming to make them aware of the dangers of the web based on the FOSI recommendations and a section for teachers.

#TIMgirlsHackathon [1] aims to help to close the gender gap in the scientific culture. A marathon lasting around 7 hours to introduce school girls to coding. The challenge is to create a real App on a pre-established topic in one day and without any expertise. A training day outside the classroom in a stimulating and challenging environment where there is the opportunity to meet exceptional mentors, a tribute to female leadership that has been able to tear down prejudices and cultural constraints. The topic of #TIMgirlsHackathon was cyber bullying and the informed use of the web. The digital culture is also the scope of projects aimed at bringing high quality cultural content

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[1] Il The term stems from a combination of the two terms hack and marathon, starting with the IT virtuosity promoted by hackers; it is an event attended, for various reasons, by experts of different IT sectors and the purposes, in addition to technical objectives, may include educational and social objectives.

and digital languages together, making the most of the interaction opportunities offered by the Web. In so doing, the Company is asserting itself as an innovative partner in the Italian cultural and artistic world, assuming a role recognised by stakeholders who work alongside it in the various cultural sectors in which digital dissemination initiatives are run.

The partnership with **Accademia Nazionale di Santa Cecilia** takes the form of the PappanoinWeb project. Conceived for the purpose of bringing great classical music to the Internet audiences. The initiative reached its sixth edition in 2016 and was enriched this year by the WebArena experience, which consists of a space that has been technologically equipped by the company inside the concert hall, dedicated to young people under the age of 30 who are free to connect in order to share photographs, videos, emotions and actual experiences. Over the six years of the programme, the concerts offered have been watched by over 200,000 users in streaming on telecomitalia.com/pappanoinweb, thanks to the listening guides, exclusive interviews and the opportunities to interact with an musicologists at the Accademia during direct broadcasts. Two big open rehearsal also allowed over 3,000 colleagues to experience the excitement backstage, with the protagonists, and to view the real difficulties of high level musical performances.

As part of the "storytelling & performing arts," note the partnership with **Scuola Holden** of Turin, founded by Alessandro Baricco, which tests new ways of teaching and sharing ideas, knowledge, and creativity through digital technology. The Web becomes a vehicle for providing lessons with great masters and special events happening in the School. The collaboration which reached its third year in 2016 has allowed a pioneering multimedia laboratory to be set up inside the school, and it also supports, with a working group comprised of the best students, the communication of some of the Group's sustainability projects.

On the Brazilian front, the social investment strategy implemented by Tim Participações aims to promote the social inclusion of disadvantaged groups in Brazilian society, particularly children and teenagers, by running education programmes that support the corporate "without borders" concept even in the social sphere.
In 2013, the TIM Institute was founded with the aim of defining strategies and providing resources for the dissemination of science and innovation to support the development of the community in Brazil, particularly by means of mobile technology.

Four areas of activity were identified in which to develop projects:
- education/teaching
- application
- work
- social inclusion

The following is a summary of the TIM Institute's modus operandi and some of the projects it ran in 2016.

TOOLS	STRATEGIC OBJECTIVES	PROJECT SELECTION AND MONITORING
• Partnerships with organisations, institutions and public and private entities. • Free software/ open source technologies and materials.	• 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.	• 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 the Programme for International Student Assessment (PISA) 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 Math Circle approach to the country, perfecting and adapting its content to the Brazilian context. The strength of the Math Circle lies in its educational aspect, according to which student participation and reflection are fundamentally important for acquiring mathematical knowledge. In 2013, 7,000 lessons were held in connection with the O Círculo da Matemática do Brasil project, involving over 6,000 students between the ages of 7 and 9 from 61 schools across the country. The project began by training 50 teachers selected from public schools throughout the country. The teachers attended a training workshop with Bob and Ellen Kaplan and learned to replicate the Math Circle approach in class with their own students.

At the end of the period, an assessment of the project was carried out, which showed that in just three months the maths skills of students had increased by 5.7%. **Over 14,000 lessons were held in 2014 at Brazilian public schools in the cities of Duque de Caxias (RJ), Porto Velho (RO), Belém (PA), Brasilia (DF), Fortaleza (CE), Aracaju (SE), Salvador (BA), Porto Alegre (RS), Rio de Janeiro (RJ) e São Paulo (SP), involving 8,000 students and promoting the training of 200 teachers from the schools where the lessons were held.** In July of the same year, three teachers were selected to take part in the 7th annual training held at the Math Circle Summer Teacher Training Institute, Notre Dame University, Indiana, United Stated, as ambassadors of the O Círculo da Matemática do Brasil programme. The impact assessment conducted at the end of the year showed that children who took part in the project improved their maths skills by 7.3% on average. In 2015, 12 cities and 5,548 students were involved in the project, and still are. Around June, 50 teachers began to take an active

part in this training process, replicating the approach and taking responsibility for training a further 2,146 teachers. This will allow more than 75,000 students in 20 Brazilian cities to enjoy the fruits of the teaching method. In 2016, the project continued with a further 50 teachers who completed the training process in April, becoming responsible for a further 1,800 teachers in another 20 cities.

TIM Faz Ciência (TIM Does Science)

The results achieved by Brazilian students in science are far from ideal. The PISA (Programme for International Student Assessment) 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 achieved the least satisfying results. However, during academic year 2014, more than 2,000 teachers in public schools across the country were able to apply a more interesting approach in science lessons.

In the second half of 2013, Instituto TIM launched TIM Faz Ciência (TIM Does Science): an educational activity aimed at teaches and students in the 4th and 5th years of primary school. The project is intended to develop a set of resources aimed at providing guidance to teachers in teaching the foundations of scientific thought to children. The content explores the notions of definition, observation, formulating questions and assumptions, classification, verification, application and generalisation.

Overall, in 2014, 70,000 students were invited to explore scientific notions and concepts in a more pleasant and effective way. In 2015, the programme involved over 125,000 students and 4,000 teachers and was adopted by 6 cities as a local training project, while in 2016, student numbers increased to 136,764 and teachers to 4,731 in 115 cities around the country.