



Connected to the future!  
IDEAS, PEOPLE AND VALUES

# SUSTAINABILITY REPORT 2016





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# Letter to our stakeholders

Dear Stakeholders,

For the first time in its history ASTM has produced its own Sustainability Report.

This is something I am particularly proud of, as are all our employees and the people who work for the Group, because it represents an additional, fundamental, step in the process of growth that ASTM has embarked upon.

Economic, organisational and operational growth, but also sustainable growth.

Because being sustainable means being able to create lasting value over time, but it also means being able to accept and successfully meet tomorrow's challenges.

Many of us are used to reading reports that describe the operating and financial performance of companies. And there is no doubt that a report with positive operating results is always good news appreciated by shareholders, employees and the market, because it means that the business is healthy and is able to grow.

So why also produce a Sustainability Report?

Because I think it is useful, above all, for those who produce it.

Because a Sustainability Report provides a picture of the policies and efforts of the Company and its employees aimed at a "social management" of the business. But at the same time, a Sustainability Report provides the information needed to be able to set targets for our improvement, and to assess what we have done in our relationship with all our stakeholders.

This is the true goal of a Sustainability Report and this is the commitment that we now want to make: to continuously improve our financial performance, but also our social and environmental performance.





In recent years, ASTM has embarked on a process of international expansion of its core businesses: Motorway Concessions, Construction, Engineering and Technology. Opening up to global markets has increased competition and comparison against new global competitors who have already made great strides in the area of sustainability.

We are the world's fourth largest toll motorway operator. This fact marks a significant step in our process of development, but also a great responsibility towards all our global users.

With this in mind, we want to make responsible conduct a driver of our competitiveness and of our continuous improvement and, therefore, of our success.

We want to create value. Value for the Company, for our shareholders, large and small, for our employees and their families, for our suppliers, and for the communities and organisations we engage with every day.

Today, it is becoming increasingly clear that an enterprise must have a closer and closer relationship with local environments and communities. This means that we need to change the way we do business and to promote a different culture within our organisation where respect for the environment and social matters become an increasingly integral part of the way we operate.

This is our goal for the immediate future.

That is the ambitious challenge that we will measure ourselves against – for all our stakeholders and for us as an organisation.

I hope you enjoy the Report.

*Alberto Rubegni*

# Introduction

## OUR REPORT

This Sustainability Report is the result of the first work carried out by the organisation to identify and report the sustainability data and information for the companies belonging to the group made up of ASTM S.p.A. and its subsidiaries (below also the "Group" or the "ASTM Group") and describes the actions taken and the results achieved in 2016 (period from 1 January to 31 December). This document provides combined reporting on the Group's economic, social and environmental performance, and represents an important tool for informing stakeholders about the ASTM Group's work in the area of sustainability.

The Sustainability Report has been prepared in accordance with the "G4 Sustainability Reporting Guidelines (2013), Core option, and the "Construction and Real Estate Sector Disclosures" (2014), both published by the Global Reporting Initiative (GRI). A materiality analysis was conducted internally to identify the topics that the Group and its stakeholders consider of most relevance to the Company, and from this emerged the content and indicators covered in this report.

The Ten Principles of the United Nations Global Compact (UNGC) and the ISO 26000:2010 Guidance of the International Standard Organisation have also been taken into account in preparing this report.

The data and information contained in this document refer to all the companies of the ASTM Group at 31 December 2016, which are fully consolidated within the Group's Consolidated Financial Statements, with any exceptions specifically noted in this report. Where possible, the data for the previous year has been provided to enable comparison of the data over time and assess the progress of the Group's activities. In addition, to ensure accuracy, information has also been included on actions taken in previous years that is still applicable to the Group's activities.

Data accuracy has been ensured by minimising the use of estimates as far as possible, and when estimated data has been used, it has been clearly indicated as such.

With regard to the significant changes in ownership structure within the Group during the reporting period, we note the following:

- with effect from 1 July 2016, following the transfer of the equity interests held in Itinera S.p.A. by Argo Finanziaria S.p.A. and its subsidiary Codelfa S.p.A., ASTM (i) directly and indirectly holds an equity interest corresponding to the entire share capital of Itinera S.p.A., except for 1 share, and (ii) controls the A.C.I. S.c.p.a. consorzio stabile - Argo Costruzioni Infrastrutture Group.



- On 20 December, 2016, the merger was agreed of ABC Costruzioni S.p.A. into Itinera S.p.A., which took effect as of 31 December, 2016. As a result of this merger, Itinera also acquired control of ACI S.c.p.a..

The GRI social and environmental indicators have been prepared to retroactively reflect the theoretical effects that the acquisition of control of the Itinera Group and the ACI Group would have had if those transactions had taken place on 1 January 2016. In addition, to enable proper comparison of the data, the figures for the reporting period from 1 January to 31 December 2015 have been determined including the Itinera Group and the ACI Group. Any exceptions are duly noted in this document.

The operational and financial figures have been prepared based on the effective date of acquisition of control, which was 1 July 2016 for the Itinera Group and 31 December 2016 for the ACI Group.

The Sustainability Report is published annually.

Contacts:

Communications and press  
[sostenibilita@astm.it](mailto:sostenibilita@astm.it)  
[www.astm.it/sostenibilita](http://www.astm.it/sostenibilita)

## THE GROUP'S COMMITMENT

In the two years from 2015 to 2016 new challenges have been set for sustainability and there has been an increasing interest in global issues such as climate change, employment, economic growth, protection of human rights, and innovation in all fields.

The approval by the United Nations of the 17 Global Goals for Sustainable Development (SDGs) for 2030 and the new agreement adopted in the Paris climate conference (Conference of the Parties - COP - United Nations Framework Convention on Climate Change) have opened new avenues that give organisations the opportunity to act as key players in promoting and spreading sustainable global development.

In this increasingly ambitious international landscape, enterprises are playing a key role and the development of structured social responsibility policies is becoming a key factor for the success of organisations.

The ASTM Group is committed to taking part in this process of change, by setting out its own sustainability policy, inspired by the Ten Principles of the UN Global Compact (UNGC) and the ISO 26000:2010 Guidance, and seeking to act responsibly, by incorporating sustainability into its business operations.

The Group has recognised the value that a corporate culture geared to promoting the development of people, the environment and local communities represents for its process of growth aimed at creating lasting value for both the organisation and its stakeholders.



# 2016 HIGHLIGHTS

€1,208 million\*  
TOTAL REVENUE

€664.5 million\*  
EBITDA



THE ASTM GROUP

€1,012\*  
EARNINGS PER SHARE

€1,171 million  
ECONOMIC VALUE GENERATED  
AND DISTRIBUTED  
TO STAKEHOLDERS

\*Figures from the ASTM Group 2016  
Management Report

3,466  
EMPLOYEES

- 21%  
ACCIDENTS AT WORK



OUR COMMITMENT  
TO OUR EMPLOYEES

95%  
EMPLOYEES ON  
PERMANENT CONTRACTS

53%  
EMPLOYEES AGED 30-50

- 3.6%  
ENERGY CONSUMPTION

97.5%  
WASTE RECYCLED  
AND REUSED



RESPECT  
FOR THE  
ENVIRONMENT

- 2.8%  
CO<sub>2</sub> EMISSIONS

- 6.4%  
WATER CONSUMPTION

AROUND 78%  
LOCAL PURCHASES



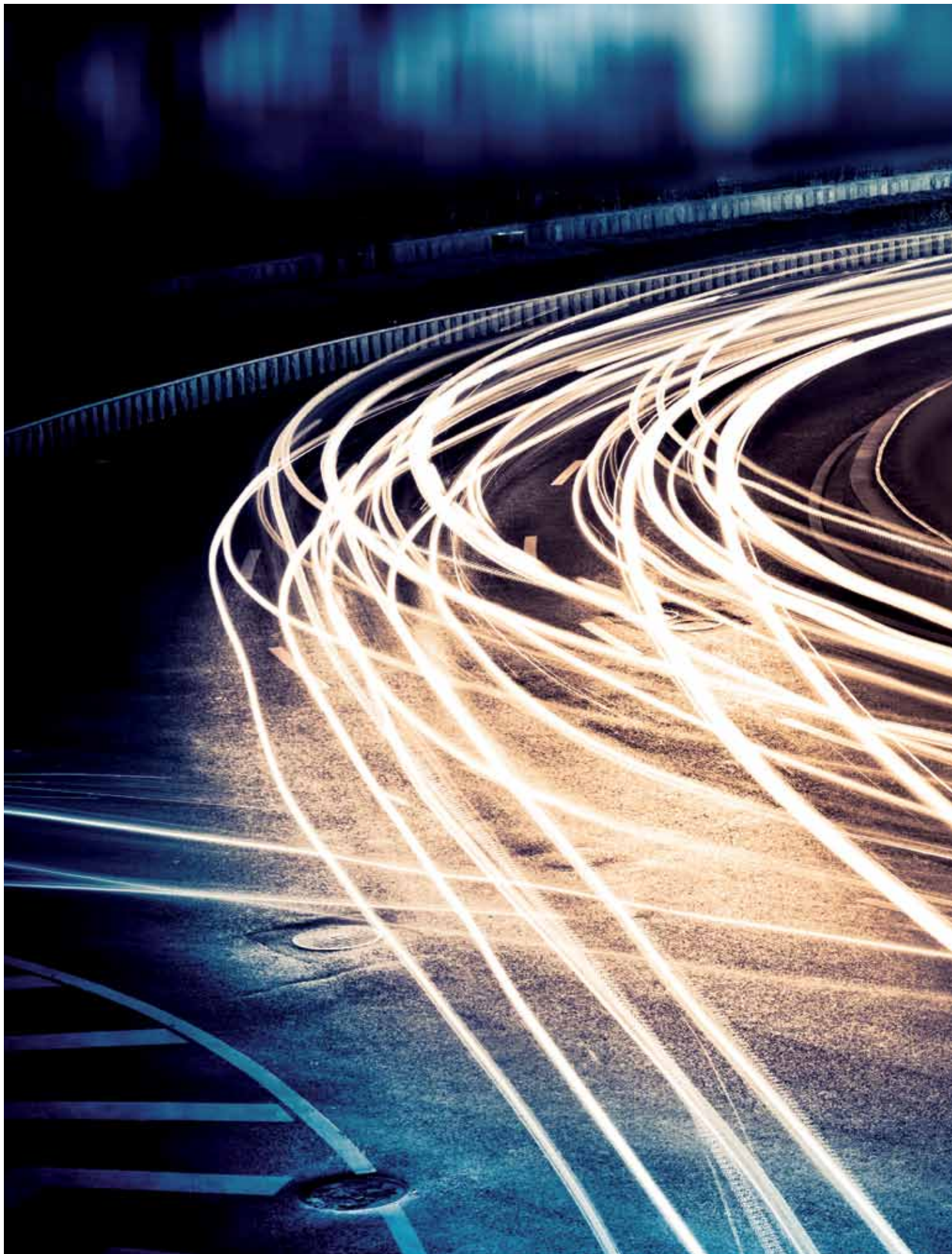
COMMITMENT  
TO COMMUNITIES

3,320 Km  
OF MOTORWAY NETWORK IN  
ITALY AND BRAZIL

€165 million  
EXPENDITURE FOR ROAD  
SAFETY MEASURES



OUR BUSINESSES





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# The ASTM Group





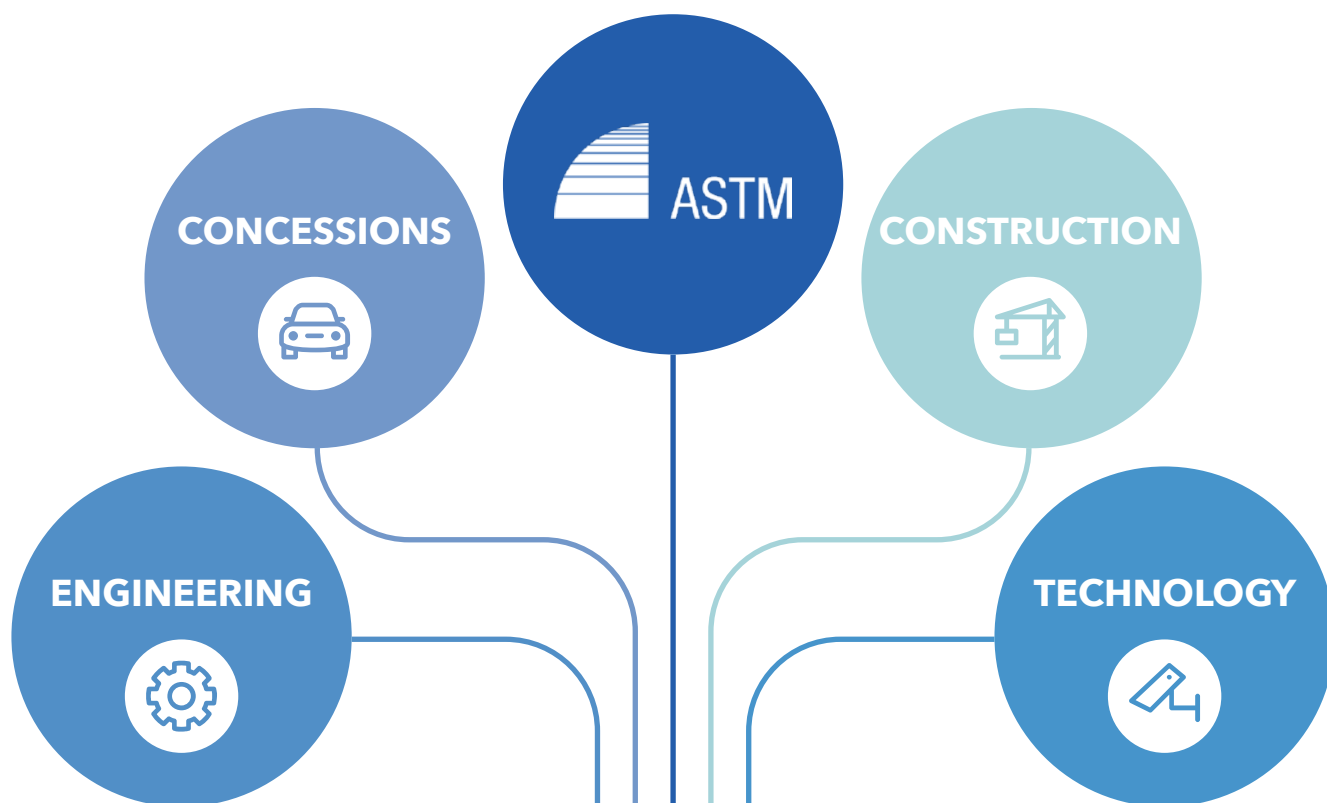
# The ASTM Group

## ABOUT US

**A**STM S.p.A. is an industrial holding company, with registered office in Corso Regina Margherita 165, Turin, Italy. It operates in the sectors of motorway network management under concession and the design and implementation of large-scale infrastructure projects, as well as applied technology for road and motorway infrastructure.

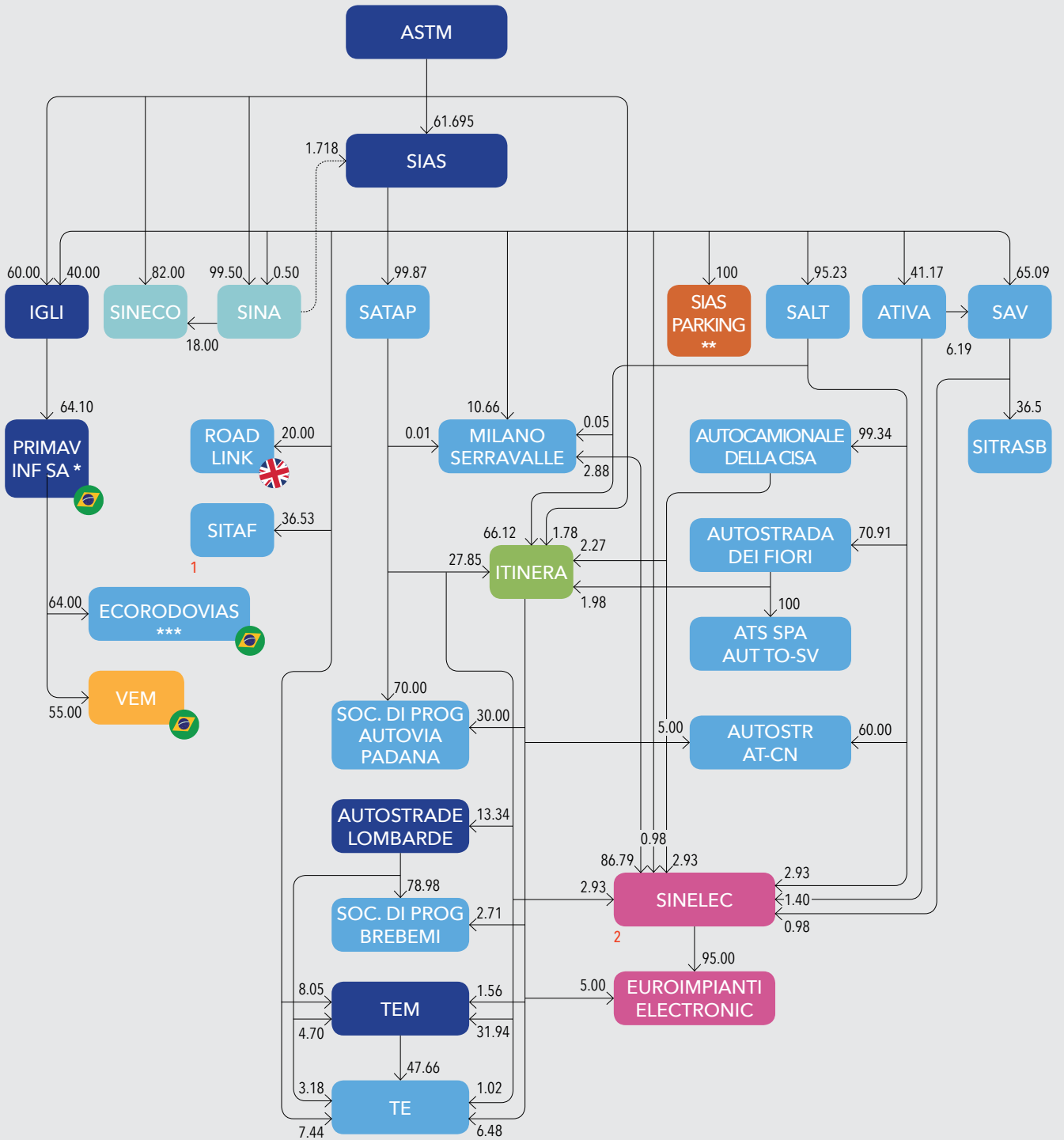
The Group has over 3,460 highly-skilled employees and ended the year 2016 with a total revenue of €1,208 million.

ASTM S.p.A. is listed on the Mercato Telematico Azionario (MTA) electronic stock exchange operated by Borsa Italiana S.p.A. and is under the management and coordination of Argo Finanziaria S.p.A. (Gavio Group).



## GROUP STRUCTURE

Below are illustrated the relationships between the main ASTM Group companies as at 31 December 2016, showing each company's sector of operations.



- Holding
- Motorway Operators
- Urban mobility operators
- Construction company
- Technological services (IT)
- Car parks
- Engineering company

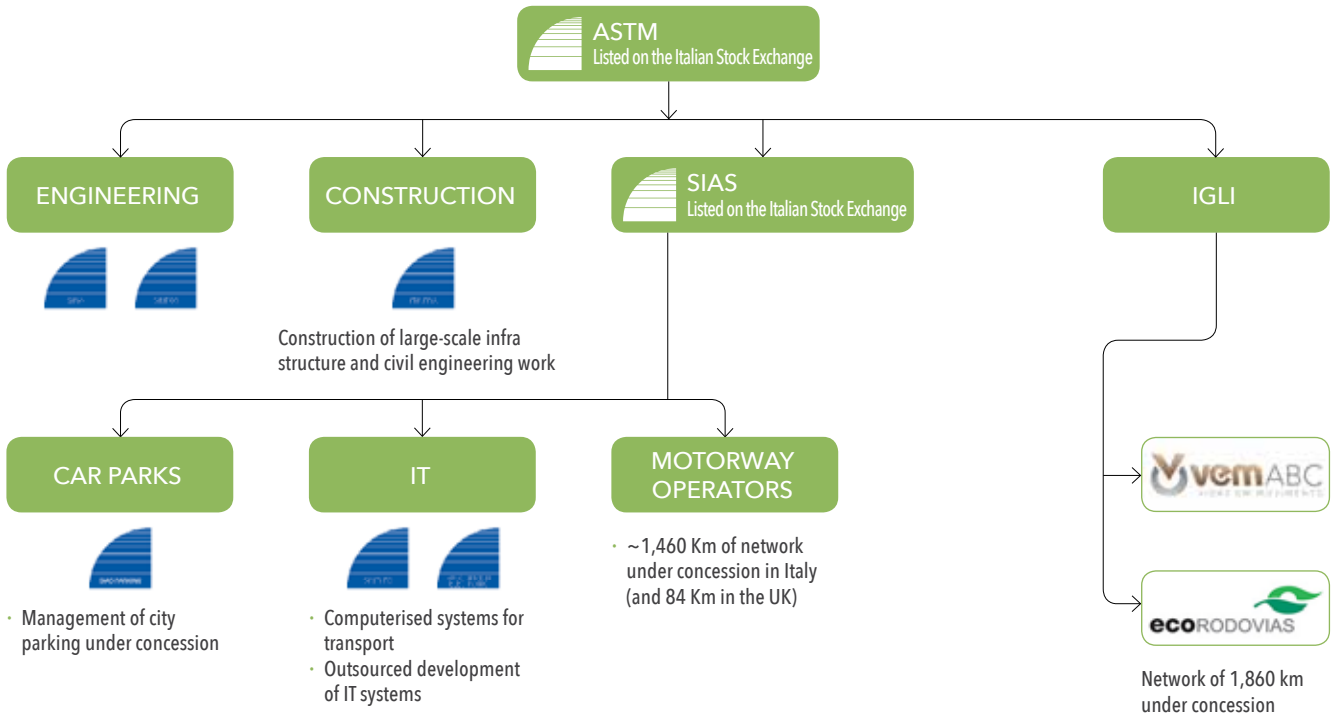
- 1 1.08 by Ativa
- 2 1.08 by Sita

\* On the basis of the contractual arrangements, this holding percentage corresponds to 50% of voting rights.

\*\* Holding company in the parking sector that owns the following shareholdings: Fiera Parking (Milan) 99%, Piazza Meda car park (Milan) 50%, Piazza Trento and Trieste car park (Monza and Brianza) 50%, Via Manuzio car park (Milan) 50%, and Piazza Vittorio car park (Turin) 50%

\*\*\* Brazilian holding company (listed on the BOVESPA Novo Mercado, and jointly controlled) comprising companies operating in the logistics and motorway operation sector.

## SECTOR OF OPERATIONS



## CONCESSIONS

### Motorway concessions

Through its subsidiary SIAS S.p.A.\*, a company listed on the Electronic Stock Exchange (MTA) operated by Borsa Italiana S.p.A., ASTM has solid experience in the road and motorway concessions sector.

The Group is currently one of the main international players in this sector and is the world's **fourth largest operator of toll motorways, with a network of about 3,320 km:**

- in **Italy**, it is the main motorway operator in the Northwest with a network of approximately **1,460 km** of roads, in one of the areas with highest per capita income in Europe, located along Europe's main infrastructure corridors and the strategic routes identified by

the European Union for the development of passenger and freight transport;

- in **Brazil** the Group manages a network of around **1,860 km**, through its joint control of the Ecorodovias Group, one the largest operators in the infrastructure sector in Brazil and listed on the São Paulo Bovespa stock exchange.

### City parking

The Group is also involved in the construction and operation of large public car parks under concession, offering innovative urban mobility solutions and services. The Group operates sites in some of Italy's major cities, including: Fiera Milan parking (10,000 spaces) and Piazza Meda car park (552 places), both in Milan, and Piazza Vittorio car park in Turin (620 places).

\*More details are available on the Company's website [www.grupposias.it](http://www.grupposias.it) in the Sustainability section.

## BUSINESSES

### CONSTRUCTION

ASTM operates in the large-scale infrastructure construction sector through its subsidiary Itinera S.p.A. (which ASTM acquired control of on 1 July 2016), one of the leading Italian companies in the sector in terms of size, revenue, order book, expertise and know-how.

The Company operates throughout the world in the sectors of roads, motorways, railways, metro systems, bridges, viaducts, dams, and civil and industrial engineering works, providing its customers technologically advanced global solutions.

The continuous development of its technical know-how, in addition to its organisational capacity and processes, enable the company to achieve the best results in terms of quality of work, meeting deadlines, and protecting the environment and local communities.

From the 1980s, Itinera started a process of growth at world level and currently operates in the countries of Western Europe, Africa, the Middle East and Latin America.

### ENGINEERING

Design is a key factor for transport operators and for mobility.

ASTM is active in the sector of the design and development of new projects through the companies Sina and Sineco.

Sina carries out the study, design and deployment of new infrastructure for major roads. It is also specialised in the inspection and checking of tunnel safety and surveillance systems. Sineco provides checking and inspection services for infrastructure and environmental monitoring services.

### TECHNOLOGY

ASTM operates in the sector of applied technology for mobility primarily through Sinelec and Euroimpianti Electronic, a leading company in the study, design, installation and maintenance of advanced systems for the management of mobility and transport data. The main operations are related to Intelligence Transport Systems (ITS), advanced systems for collecting tolls in line with the European directives, and computerised systems for monitoring traffic and increasing safety. The Group has its own wide area network (WAN) and manages the purchase and installation, along its motorway sections of optical fibre cables and any type of instrument linked to applied technology systems for mobility.



## MISSION AND VALUES

Creating value for the Group's stakeholders, and contributing to the economic and social growth of the countries and the communities where we operate, represent the guiding principles for our actions.

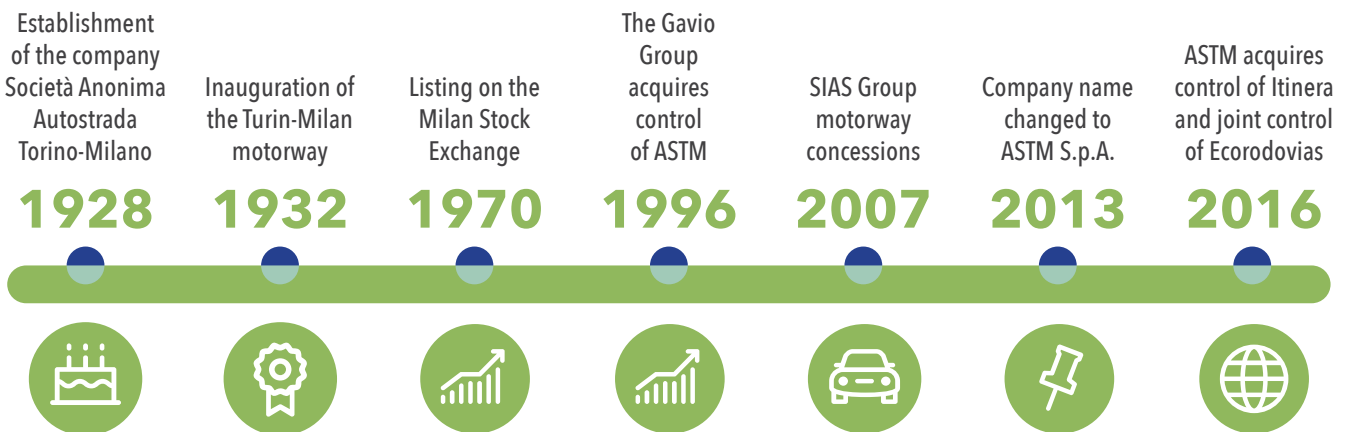
We believe in the challenges of the market, and we believe that people are a core part of our business strategy.

Continuous attention to technological innovation and the safety of our motorway users and employees, strong support to our subsidiaries, efficient and synergistic management of all our operations, and respect for the environment and local communities, are the key factors for the achievement of our objectives.





## HISTORY



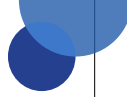
The company "Società Anonima Autostrada Torino - Milano" was established on 28 November 1928, as a result of an initiative promoted by Senator Giovanni Agnelli and Mr. Francesco Cartesegna, to construct a transport route for motor vehicles between the cities of Turin and Milan, primarily as an instrument for the commercial promotion of the automobile. The motorway would create an important link between Turin and Milan that, together with the motorways of Bergamo-Milan and Brescia-Bergamo (already operational at the time) and Venice-Padua (under construction at the time), was part of the plan for the road network at the foot of the alps connecting Turin to Trieste.

On 30 November 1929, the Company signed an agreement with the Ministry of Public Works and the Treasury Ministry authorising the construction and operation of the Turin-Milan motorway. After around 30 months of work, the motorway was inaugurated on 25 October 1932. In 1955, the road was widened from 8 to 10 metres and, seven years later, a second lane was added.

The Company, which had been listed on the Turin Stock Exchange since 19 June 1969, was also later listed on the Milan Stock Exchange from 25 February 1970.

In 1996, the Gavio Group, which had held a stake in the Company since the 1980s, acquired control over ASTM.

Over the course of the following years, the Company created a group - through acquisitions of ownership interests and corporate restructuring - that manages a total of around 3,320 km of motorway networks in Italy and abroad and that, with the acquisition of control of Itinera, intends to implement a strategy of international diversification and growth in the sec-



tors of concessions and the development of concessions and green-field projects.

The fundamental steps in the Group's process of growth also included:

- in 2007, the completion of the reorganisation process with the concentration of all the investments in the motorway sector within the sub-holding company SIAS;
- from 2013, the change of the company name to ASTM S.p.A.;
- in May 2016, ASTM, together with its subsidiary SIAS, acquired joint control of the Brazilian registered company Primav Infraestrutura S.A. into which 64% of the share capital of Ecorodovias was transferred, a company that manages a motorway network of around 1,860 km in Brazil;
- from 1 July 2016, ASTM acquired control of the Itinera Group, having reached a holding of 100% of the share capital.



# GROUP STRUCTURE AND SECTORS OF OPERATION

AS AT 31 DECEMBER 2016

Below is a list of ASTM S.p.A.'s subsidiaries fully consolidated in the Group's consolidated financial statements at 31 December 2016.

## Holding companies and other minor companies

ASTM S.p.A.  
 Autostrada Albenga-Garessio-Ceva S.p.A.  
 Fiori Real Estate S.r.l.  
 Finanziaria di Partecipazioni e Investimenti S.p.A.  
 IGLI S.p.A.  
 Logistica Tirrenica S.p.A.  
 SIAS Parking S.r.l.  
 SIAS S.p.A.  
 SISTEMI E SERVIZI S.c.a.r.l.

## ASTM GROUP

### CONCESSIONS

#### Motorways

Autocamionale della Cisa S.p.A.

Autostrada Asti-Cuneo S.p.A.

Autostrada dei Fiori S.p.A.

Autostrada Torino Savona S.p.A.

SALT S.p.A.

SATAP S.p.A.

SAV S.p.A.

Società di Progetto Autovia Padana S.p.A.

#### Car parks

Fiera Parking S.p.A.

### CONSTRUCTION

Itinera S.p.A. and its subsidiaries <sup>1/2</sup>

### ENGINEERING

Cisa Engineering S.p.A.

Consorzio SINA

Consorzio SINTEC

L.I.R.A. s.r.l. in liquidation

S.I.N.A. S.p.A. - Società Iniziative Nazionali Autostradali

SINECO S.p.A.

Siteco Informatica S.r.l.

### TECHNOLOGY

Brescia Milano Manutenzione S.c.a.r.l.

Euroimpianti Electronic S.p.A.

Pedemontana Lombarda Manutenzione S.c.ar.l.

SINELEC S.p.A.

<sup>1</sup> Companies controlled by Itinera S.p.A.: A.C.I. scpa Consorzio Stabile - Argo Costruzioni Infrastrutture, AGOGNATE S.c.a.r.l., Aurea S.c.a.r.l., A7 barriere S.c.a.r.l., BIANDRATE S.c.a.r.l., Brescia Miano Impianti Scarl BMI., Carisio S.c.a.r.l., CASTELNUOVO S.c.a.r.l., CERVIT SCARL, CORNIGLIANO 2009 S.c.a.r.l. Crispi S.c.a.r.l., CRZ01 S.c.a.r.l., Diga Alto Cedrino S.c.a.r.l., GTT FALCHERA S.c.a.r.l., ITINERA GEOSYSTEM S.A.R.L., Lambro S.c.a.r.l., Malpensa 2011 S.c.a.r.l., MARCALLO S.c.a.r.l., MAZZE' S.c.a.r.l., Mortara S.c.a.r.l., Ponte Meier S.c.a.r.l., Ramonti S.c.a.r.l., S.G.C. S.c.a.r.l., SINERGIE S.c.a.r.l., Taranto Logistica S.p.A., Terminal Container Civitavecchia S.c.a.r.l., Torre di Isola S.c.a.r.l., and Urbantech S.p.A.,

<sup>2</sup> Includes ABC Costruzioni S.p.A. merged into ITINERA S.p.A. with effect from 31 December 2016.



## SHAREHOLDERS

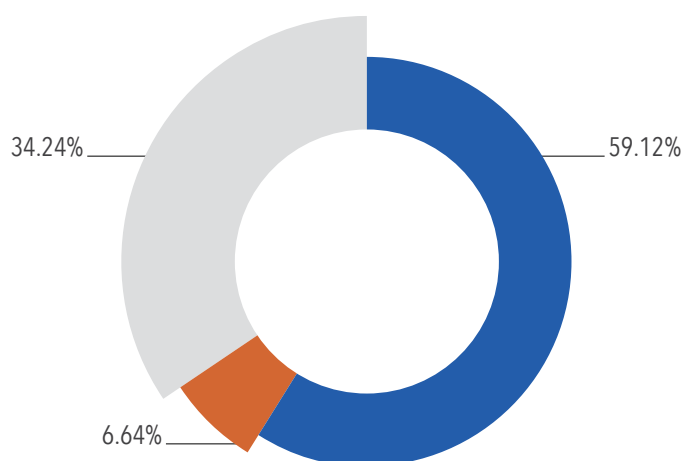
ASTM S.p.A. is a joint stock company listed on the MTA, which is operated by Borsa Italiana S.p.A.

The shareholders with a holding of more than 3% of the share capital at 31 December 2016, based on the available information, were:

(1) Aurelia S.r.l. 0.55% Argo Finanziaria S.p.A. 56.60%, and Codelfa S.p.A. 1.97%

Gavio Group (1)	59.12%
Treasury shares	6.64%
Free float	34.24%

- Gavio Group (1) ●
- Treasury shares ●
- Free float ●



## TRANSPARENCY AND COMMUNICATION

Strategic and financial communications are key instruments for contributing to **value creation** for all the Group's stakeholders.

ASTM's communications policy is based on the highest levels of **integrity, transparency and clarity**.

Through its Communications Department and its Investor Relation Department, the Company maintains a continuous relationship with representatives of the media, the market and investors by organising one-to-one or group meetings with the financial community and the financial press.

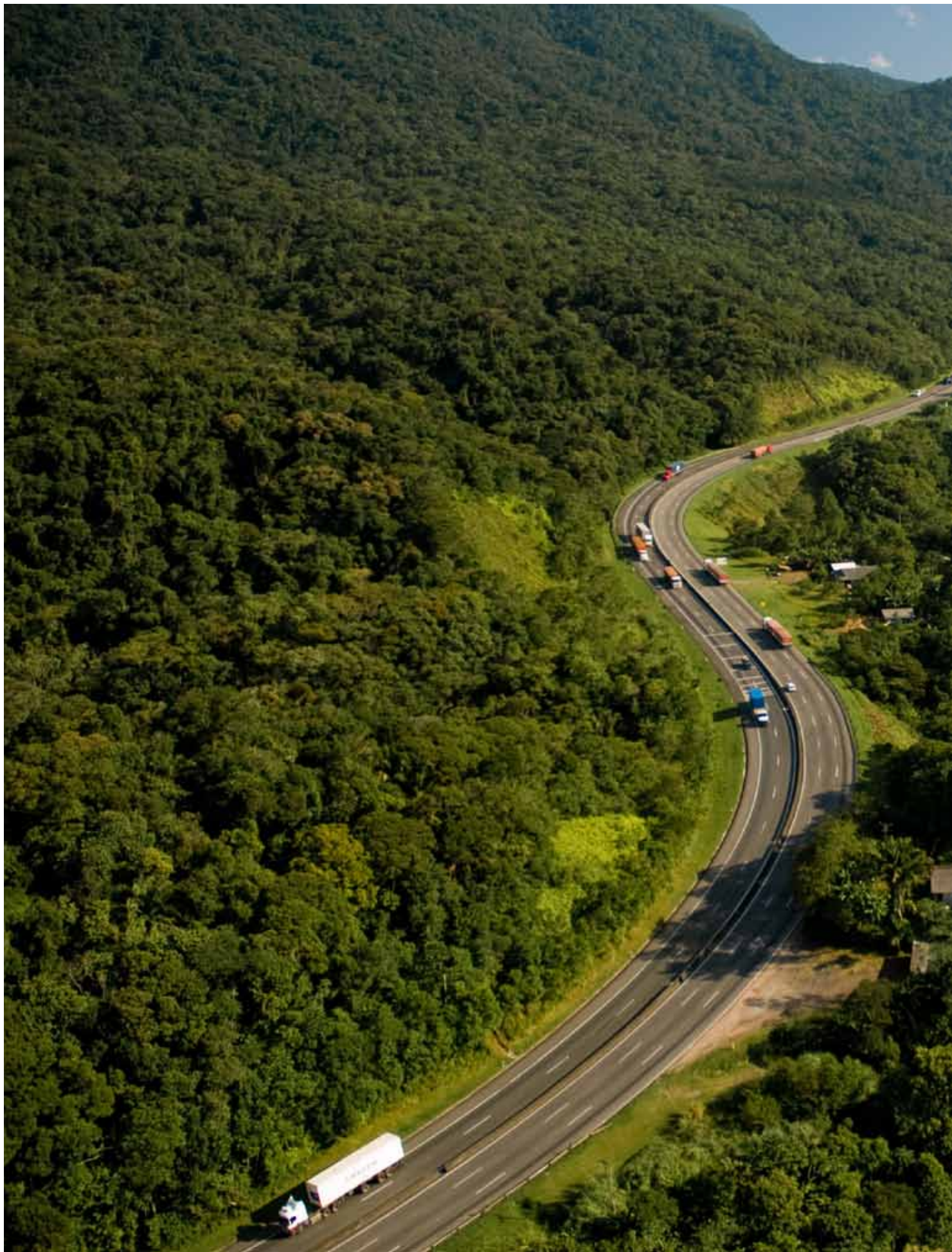
The strategic objective is to ensure maximum transparency, clarity and timeliness of financial information flows.

A **continuous, open dialogue** with stakeholders. For the Group communicating effectively means establishing a **lasting and continuous relationship** with its public, conveying the value of the business and properly using all means of communication.



The **External Relations** department is responsible for managing corporate communications, media relations, and reputation, in order to provide timely and proper financial and non-financial communications for the Group.

The **Investor Relations** department is responsible for communicating and explaining the Company's operating and financial indicators to the market and investors through regular meetings and road shows.





Connected to the future!  
**IDEAS, PEOPLE AND VALUES**

# Our sustainability path



# Our sustainability path

## THE GROUP'S APPROACH

**S**ustainable regional development and continuous improvement are fundamental topics underlying the Group's approach to sustainability.

For ASTM, embarking on a sustainability path means above all adopting a balanced approach to managing the business, which is essential to creating value for our shareholders and all our stakeholders in the medium to long term. Incorporating aspects of sustainability within our growth strategy is also fundamental to enable the Group to:

- respond to the needs of the

market and our stakeholders, which are giving increasing importance to the subject of sustainability, also in relation to our Group's industry sector;

- highlighting the Group's current efforts on the sustainability topics, with a view to continuing improvement;
- achieving our business and financial objectives, while respecting and contributing to the development of local economies and communities, by building a business capable of capturing the opportunities arising from the changes in its area of operations.





The model of social responsibility and path of sustainability adopted by the Group is supported by the development of the following instruments:

- this document, which is the Group's first Sustainability Report, and gives us the opportunity to provide complete disclosure of our economic, social and environmental performance;
- the Code of Ethics, which represents the Group's charter of commitments and responsibilities towards our internal and external stakeholders;

- the sustainability policy, which sets out the Group's current and future commitment for the sustainability topics.

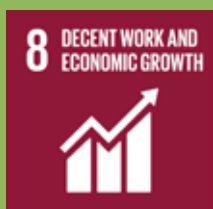
In its process of sustainable development, the Group looks at current international trends and the opportunities that the continually evolving global environment is providing to businesses, which must be increasingly capable of identifying and anticipating the needs of its stakeholders and offering products and services that meet those needs.



## THE GROUP'S SUSTAINABILITY POLICY

The Group has developed a sustainability policy designed to incorporate sustainability in all its business processes and all its areas of operations. This policy is applied together with all the regulations in force in the countries where the Group operates and alongside all the principles contained in the Code of Ethics.

The policy's objective is to represent the Group's sustainability commitments with regard to governments, employees, the environment, regions and communities, the supply chain, innovation, road safety and occupational health and safety, and it also reflects some of the UN Sustainable Development Goals, published in September 2015.





"Sustainable and inclusive development is the best way to secure and ensure lasting peace"

**ANTONIO GUTERRES**  
**SECRETARY-GENERAL OF THE UNITED NATIONS**

## STAKEHOLDER MAPPING AND MATERIALITY ANALYSIS

The ASTM Group is increasingly aware of the importance of embarking on a structured sustainability process, aiming at an ever greater interactive and collaborative integration of environmental and social topics into its business activities.

Aware of its active role in the community in driving economic, social and environmental development, ASTM has recognised the importance of directing its growth strategy towards pursuing company objectives that take account of the expectations and needs of all stakeholders. To this end, it is essential for the Group to establish stable relationships with its stakeholders for the short, medium and long term, both to strengthen ASTM's current commitment and to define future areas for action. Such relationships must involve a reciprocal exchange of information, able to help the Group understand stakeholders' interests and expectations and, where possible, pre-empt them through its goods and services offering.

With this in mind, the Group took an important step on its path by organising its first stakeholder engagement workshop, which took place in Milan on 23 September 2016.

The representatives from the main company functions were involved in the event and the objective was to present the goals of the Group's new Corporate Social Responsibility Project and to identify the stakeholders and the key sustainability topics.

All those taking part were actively involved in identifying key stakeholders and in the materiality analysis, and they expressed their ideas and opinions on the topics of sustainability and of corporate social responsibility.

The map of ASTM Group stakeholders is shown on the next page.



**ASTM GROUP STAKEHOLDERS**



In accordance with the G4 Sustainability Reporting Guidelines, produced in 2013 by the *Global Reporting Initiative (GRI)*, the Group has used the materiality analysis as the starting point for the reporting the material aspects included in this Report. Specifically, the materiality analysis enabled the Group to:

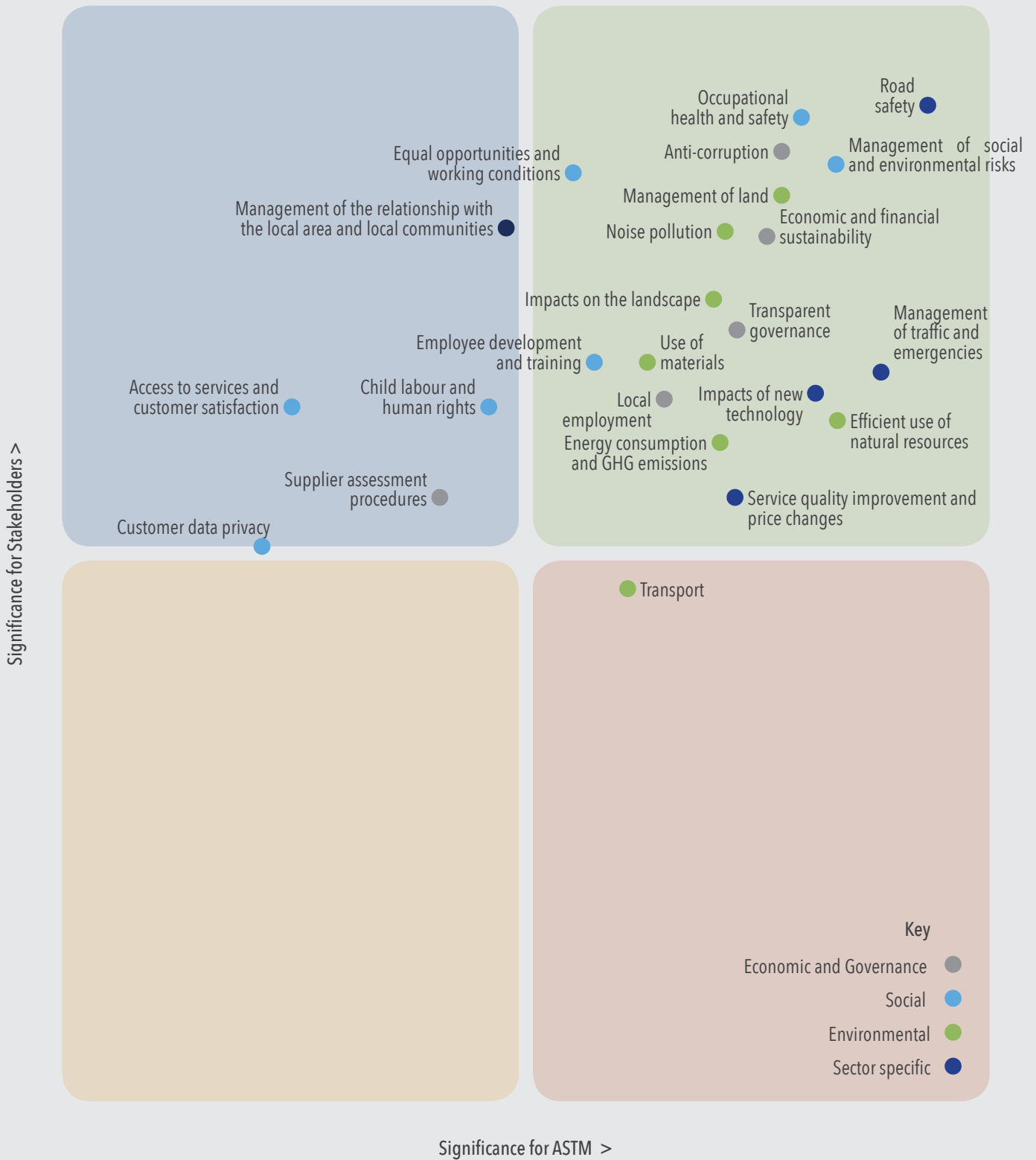
- ensure the Sustainability Report is focused on the important topics;
- evaluate each material topic's relevance to the Group's strategic priorities and to its various sector of operations, aligning its mission and principles with the values and expectations of its stakeholders;
- identify any future initiatives of stakeholder engagement and of listening to stakeholders' needs in order to respond more effectively to the respective changing situations.

The materiality analysis enabled the Group to identify its material aspects, namely the aspects that reflect its significant economic, environmental and social impacts and that substantially reflect its stakeholders' assessments and decisions.

The results of the analysis have been processed and summarised in the materiality matrix below. In more detail:

- each point represents a sustainability topic that has been assessed;
- the topics are divided into 4 categories that can be recognised through their different colours (economic, social, environmental and sector specific);
- the topics are placed within the matrix based on their significance for the Group, also considering its sectors of operations, and for its stakeholders;
- the material topics lie in the two upper and in the lower right squares. For clarity and simplicity, the topics not deemed material have been omitted.

## THE ASTM GROUP MATERIALITY MATRIX



The most significant topics concern aspects specific to the sectors in which the Group operates, primarily road safety (operators) but also social, environmental, economic and Governance aspects.

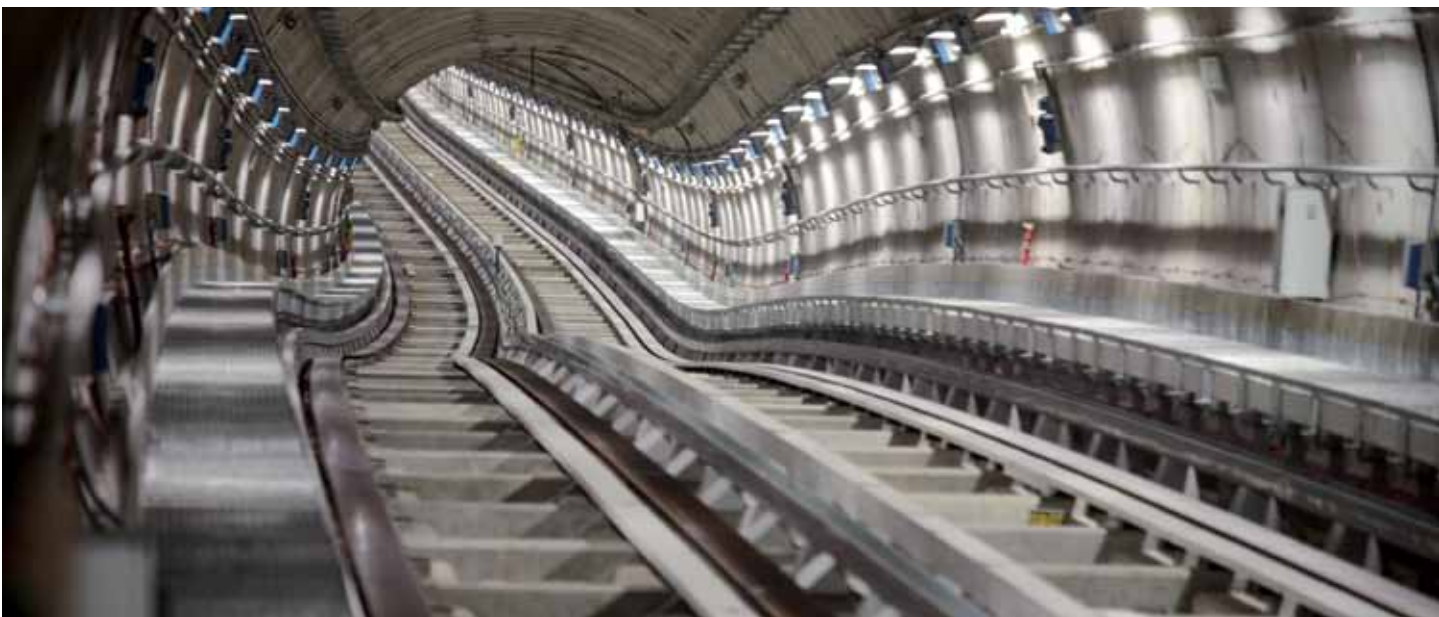
Of the topics closely linked to the sectors in which the Group operates, the most significant besides **road safety**, which emerged as the most significant topic, are the **management of traffic and emergencies and the impacts of new technology**.

Within the economic and governance area, on the other hand, particularly significant aspects are **anti-corruption, economic and financial sustainability and transparent governance**.

In the social sphere, the priority topics are **occupational health and safety, management of social and environmental risks** and the implementation of policies aimed at ensuring **equal opportunities**.

Finally, environmental aspects concerning the **management of land, impacts on the landscape and the efficient use of natural resources** are of special importance, including in relation to the sectors in which the Group operates (construction).

More information on these analyses is provided in the Appendices to this Report.



## ECONOMIC VALUE GENERATED AND DISTRIBUTED

The breakdown of economic value generated and distributed by the ASTM Group was created by reclassifying the income statement items of the ASTM Consolidated Financial Statements for the year ended 31 December 2016.

In 2016, the Group's overall net added value was €1,171 million, +2.58% on the previous year.

The main component of this value (41%) was attributable to "Remuneration of suppliers", mainly comprising costs for services and raw materials.

This was followed by "Remunera-

tion of employees" (18%), which comprised salaries, employee severance indemnities and social security contributions.

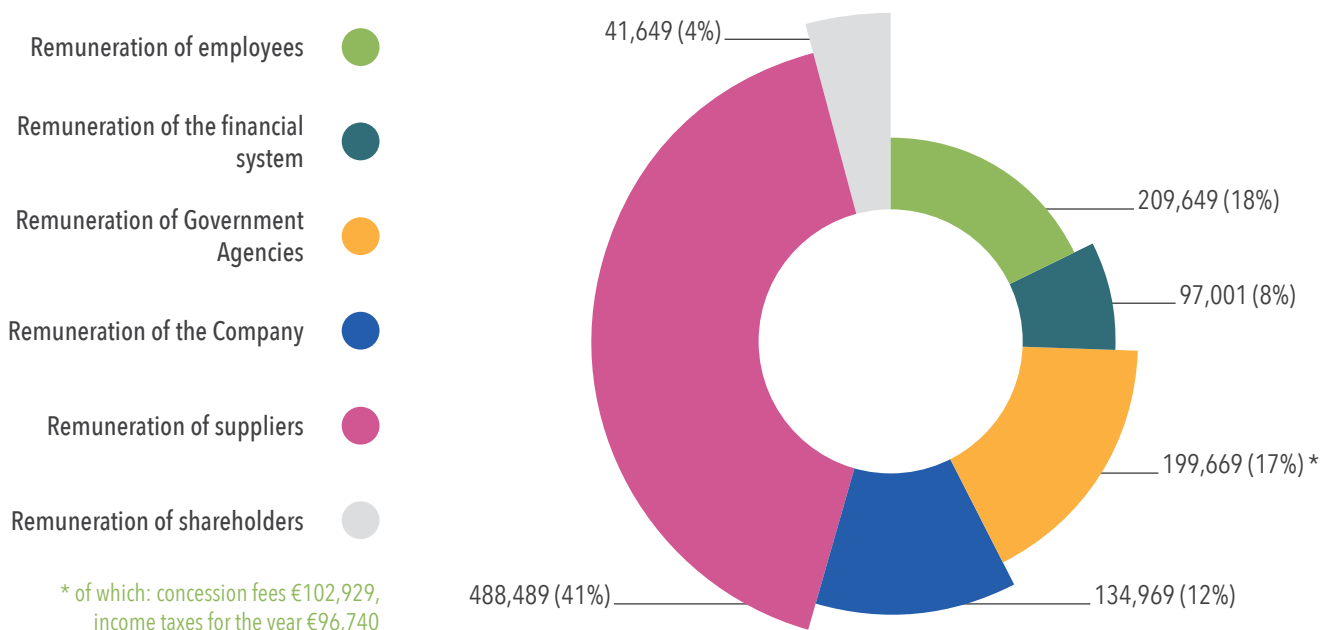
The "Remuneration of the Government Agencies" represented 17% and comprised income tax and concession fees.

"Remuneration of the company" accounted for 12% of the total and included the value retained by ASTM for the future development of the Group.

Finally, "Remuneration of the financial system and of shareholders" accounted for 8% and 4%, respectively.

### DISTRIBUTION OF ECONOMIC VALUE 2016

(in thousands of euros)





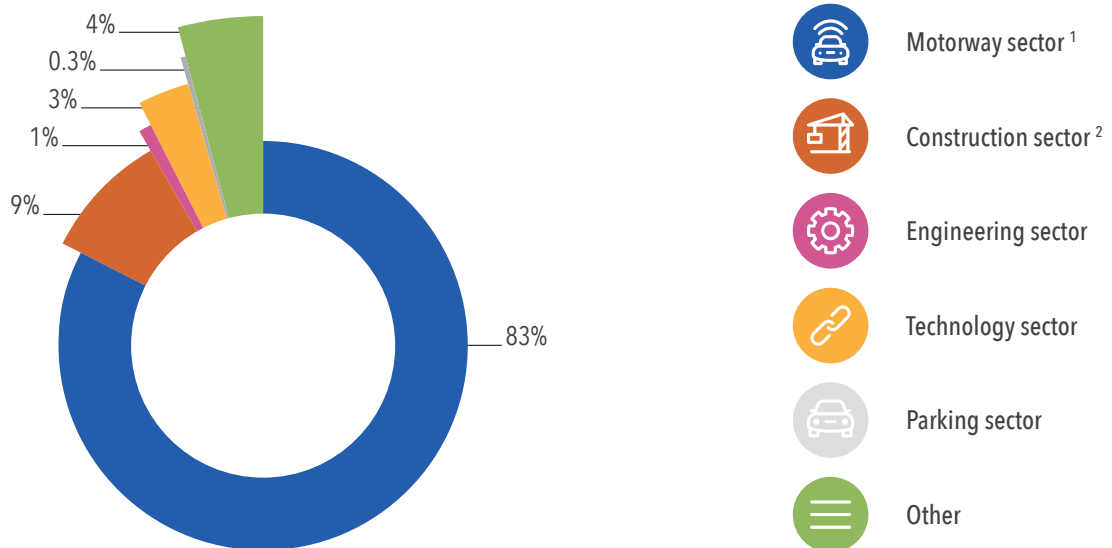
## FOCUS ON REVENUE

In line with 2015, the motorway sector remained the ASTM Group's main segment in terms of revenue generated (€1,007,127 thousand). That was followed by construction (€105,635 thousand), engineering (€10,292 thousand) and technology (€36,069 thousand). Finally, the ASTM Group's revenue also included revenue from parking operations (€3,087 thousand) and other miscellaneous activities (€45,830 thousand).

<sup>1</sup> Net of fee/surcharge payable to ANAS

<sup>2</sup> With regard to motorway concessions, IFRIC12 calls for full recognition in the income statement of costs and revenues for "construction activity" concerning non-compensated revertible assets. In order to provide a clearer representation in the table, these components were reversed.

## REVENUE 2016



Motorway sector <sup>1</sup>



Construction sector <sup>2</sup>



Engineering sector



Technology sector



Parking sector



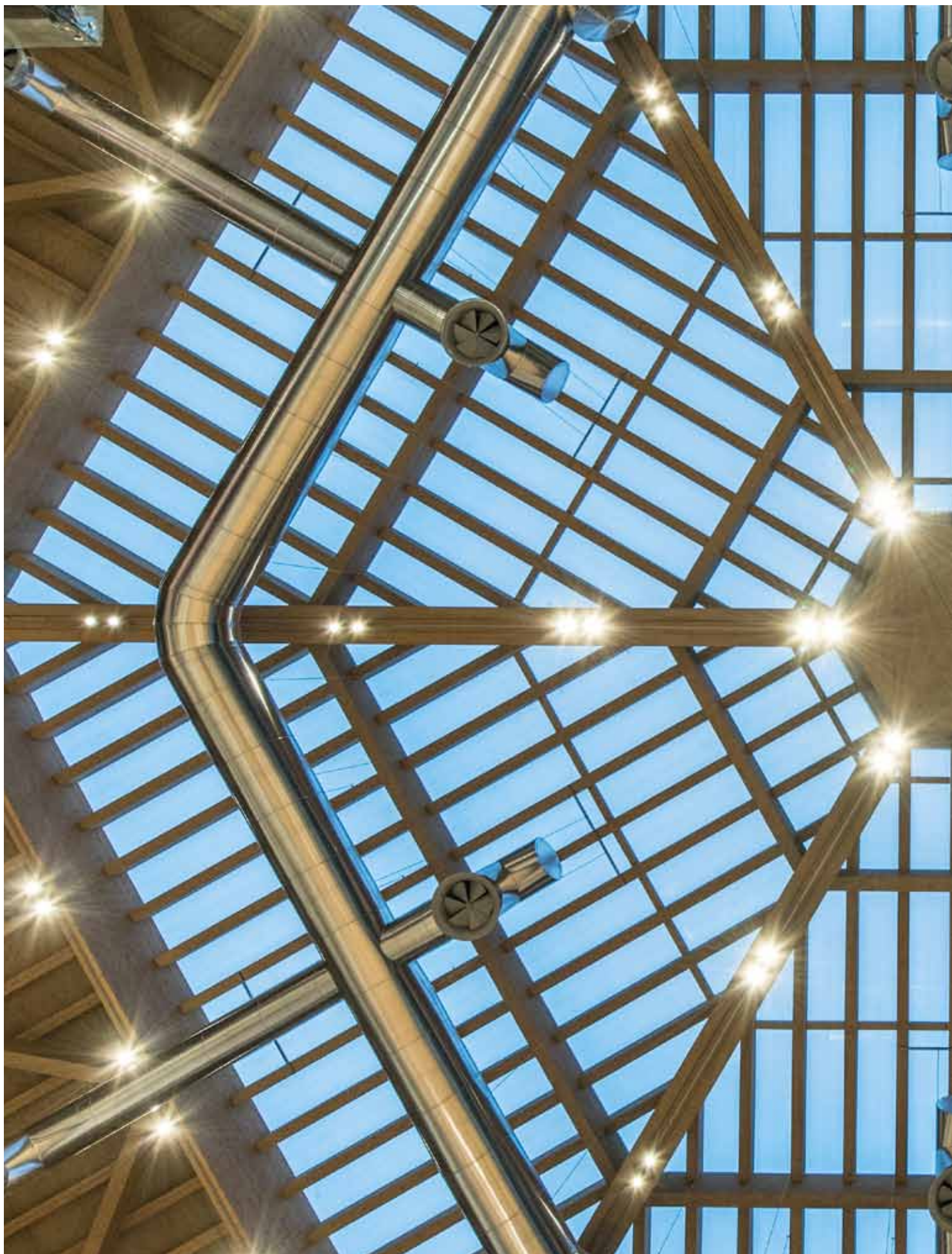
Other



CREATING AND PRESERVING VALUE OVER THE LONG TERM IS AN ONGOING COMMITMENT FOR THE GROUP, AS WELL AS AN IMPORTANT OBJECTIVE FOR ECONOMIC SUSTAINABILITY.

The creation and distribution of economic value gives an indication of an organisation's capacity to create wealth for its stakeholders. The extent of this enables the measurement of how the econom-

ic and financial wealth generated by the ASTM Group is then distributed among its different stakeholders.





Connected to the future!  
**IDEAS, PEOPLE AND VALUES**

# Ethics and Integrity



# Ethics and integrity

## CODE OF ETHICS

**A**STM's Code of Ethics and Conduct (the "Code of Ethics") sets out the standards of ethics and behaviour adopted by the company in its relations with its personnel and outside parties. These standards must be adopted by anyone who acts on behalf of the Company or comes into contact with it, and failure to do so results in the application of disciplinary and contractual penalties for any breaches.

In this regard, the Code of Ethics establishes the standards for relations with outside parties, and in particular with employees, suppliers, contract workers and consultants, government agencies, regulatory and supervisory authorities

and judicial authorities and the standards for relations with general public, which include the environmental policy. Lastly, the Code sets out the standards to be adopted in relations with trade unions, institutional investors, financial analysts and the media.

The Code of Ethics is provided to everyone has dealings and relations with the Company, for any reason, including all its employees from when they are hired and all those who sign a supply agreement with the organisation. The Code is also available on the company intranet **#agorà** and the Company's website [www.astm.it](http://www.astm.it) in the sustainability section.



**"Everyone involved in the Group's operations must be guided by the general principles of honesty, transparency, diligence, proficiency, professionalism and efficiency."**

Compliance with the rules of the Code of Ethics must be considered an essential part of ASTM's contractual obligations under the applicable regulations. Violation of the standards set out in the Code can constitute a breach of the contractual obligations resulting from the employment or work contract.

ASTM and its main subsidiaries have also adopted a disciplinary system designed to penalise failure to comply with the measures and principles contained in the "Organisational, management and control model pursuant to Legislative Decree 231/01" and the associated "Code of Ethics".

## INTERNAL AUDIT AND RISK MANAGEMENT SYSTEM

The **Board of Directors** is responsible for the internal audit and risk management system. It establishes the **guidelines** for the system and also regularly assesses its suitability and effectiveness to ensure that the Group's main risks are correctly identified and appropriately measured, managed and moni-

tored, to help ensure that business operations are conducted in accordance with the business objectives set by the Board of Directors.

The Group's internal audit and risk management system consists of the set of procedures, organisational units and the work they perform designed to ensure an adequate process of identification, measurement, management and monitoring of the main risks for the Group's operations, thereby helping to conduct operations in accordance with the business objectives established by the Board of Directors and promoting the adoption of informed decisions.

An effective Internal Audit and Risk Management System helps to ensure the protection of company assets, the effective and efficient management of company processes, the reliability of financial information, and compliance with laws and regulations, the Articles of Association and internal procedures.

The following bodies and officers are involved in ASTM's Internal Audit and Risk Management System, based on their respective responsibilities:

- the **Board of Directors**, which performs a role of guidance and assessment concerning the adequacy of the Internal Audit System, by (i) establishing an Audit and Risk Committee within the Board composed of Independent Directors, which assists the Board of Directors in performing its investigatory functions, and (ii) by designating a Director responsible for establishing and maintaining an effective Internal Audit and Risk Management System (the "Internal Audit and Risk Management Officer");
- the **Head of the Internal Audit function**, appointed by the Board of Directors on proposal by the Internal Audit and Risk Management Officer and recommendation by the Audit and Risk Committee, after having consulted the Board of Statutory Auditors, is tasked with verifying that the Internal Audit and Risk Management System is suitable and operational;
- the **Board of Statutory Auditors**, which oversees compliance with the law and the articles of association; adherence to the principles of proper administration; the suitability of the Company's organisational structure and management and accounting system;
- the **Manager responsible for financial reporting**, pursuant to Article 154-bis of the Consolidated Law on Finance.
- the **Supervisory Body** of the Company, established in accordance with Legislative Decree 231/2001;
- the **Managing Directors** of the Subsidiaries;
- the **employees** of the Company.



On 6 March 2014, the Board of Directors approved the "Guidelines for the internal audit and risk management system" ("Guidelines") in which it set out the overall framework for the relations between the various functions, with regard to their respective areas of operations and responsibility.

The Internal Audit and Risk Management System Model adopted by ASTM, which is incorporated in the more general organisational and corporate governance structures, has been developed based on leading national and international practice, and in line with the Integrated Framework (CoSO Report) and the Enterprise Risk Management Integrated Framework (CoSO ERM) produced by the Committee of Sponsoring Organizations of the Treadway Commission.

The management Internal Audit and Risk Management System ensures the control of the risks associ-

ated with the pursuit of the strategic company objectives and the related operational objectives, including: effective and efficient conduct of business operations (operational objectives), reliability of financial and non-financial information (reporting objectives), and compliance with laws and regulations (compliance objectives).

## RISK

ASTM S.p.A. adheres to the Corporate Governance Code of Borsa Italiana and monitors the management of its risks through the Internal Audit and Risk Management Officer and the Audit and Risk Committee. The internal risk management and control process, supported by the aid of the designated internal functions, ensures the control of the risks associated with the pursuit of the strategic company objectives. The main risks in relation to the sustainability topics are set out below.





**INFRASTRUCTURE FAILURE AND USER SAFETY RISK:**

Risks associated with the failure of motorway infrastructure and risks associated with circumstances that could jeopardise road traffic safety.

**RISKS CONNECTED TO ETHICAL CONDUCT:**

Risks connected to the lack of integrity of the management and employees of the Group companies that could lead to unethical, unauthorised, unlawful or fraudulent conduct, particularly with regard to active and passive corruption, private-to-private corruption, and human rights.

**RISKS CONNECTED TO THE SUPPLY CHAIN AND SUBCONTRACTORS:**

Risks associated with the conduct of suppliers and subcontractors and lack of visibility and control over supplier practices, especially in the construction sector, and with particular regard to occupational health and safety, respect for human rights, and compliance with environmental and anti-corruption regulations.

**ENVIRONMENTAL AND OCCUPATIONAL SAFETY**

**REGULATORY COMPLIANCE RISK:**

Risks associated with failure to comply with environmental regulations (environmental damage, noise pollution, risk of overlap with contaminated areas, risks associated with construction and excavation, waste disposal and water management) and occupational health and safety regulations.

**RISK CONNECTED TO PERSONNEL:**

Risk connected to the inappropriate management of the recruitment, selection, development, motivation and retention of key staff within the Group.

**ENVIRONMENTAL REGULATORY RISK:**

Risk connected to changes in environmental legislation and regulations in the Group's countries of operations that could affect the organisation's activities.

**NIMBY RISK**

Risks associated with Not In My Back Yard (NIMBY) events, i.e. events linked to the possibility that local communities and professional associations may make complaints against large-scale infrastructure and/or road network improvement projects carried out by the Group.





### The Group's response to risk

The Group manages and monitors risk to determine its compatibility with management of the business according to the strategic objectives identified.

All the main Group companies have adopted an "Organisational, management and control model pursuant to Legislative Decree 231/01" (the "231 Model") and the related the "Code of Ethics" and have also established procedures, protocols and a disciplinary system to penalise failure to comply with the measures and principles contained in those documents.

In addition, several Group companies, including Itinera, have de-

cidated to adopt an ISO 14001 certified Environmental Management System and an OHSAS 18001 certified **Occupational Health and Safety Management System**, ensuring the application of specific management procedures for the continuous improvement of their environmental performance. The Group companies operating in the technology and construction businesses have also developed an integrated management system (Quality, Safety, and Environment) to ensure that all the applicable safety, health and environmental laws have been identified, assessed and all the necessary actions have been taken to ensure legislative compliance in all the operational units.



THE MAINS RISKS  
CONNECTED TO THE GROUP'S  
SUPPLY CHAIN.

With regard to risks associated

with the supply chain, the Group closely monitors the aspects linked to corruption, quality of materials, timeliness of services provided, respect for human rights,

and the application of fair and financially sustainable contractual conditions.

## ORGANISATION, MANAGEMENT AND CONTROL MODEL PURSUANT TO LEGISLATIVE DECREE 231/2001

Since 2004, ASTM and the main Group companies have adopted an "Organisational, management and control model pursuant to Legislative Decree 231/01" (the "231 Model") and the related "Code of ethics and conduct" (the "Code of Ethics") and have also established a disciplinary system designed to penalise failure to comply with the measures and principles contained in those documents.

## HUMAN RIGHTS

The Group requires the utmost respect for people and compliance with labour regulations. It strongly condemns unlawful, forced and child labour and its objectives include creating a work environment that specifically and continually takes account of **respect** for the individual, for their **dignity** and their values, and avoiding any discrimination based on gender, racial origin or ethnicity, nationality, age, political opinions, health status, sexual orientation, and economic and social circumstances.

The Group considers **impartial treatment** to be a fundamental value in all its internal and external relations and believes that the individual, and their values and their rights, are values that must be protected.

Employees are required to always act in a manner that respects the rights and personalities of colleagues, contract workers and outside parties, regardless of their hierarchical position within the Company.

In addition, the Group, its suppliers and its main partners, are subject to legislation that safeguards respect for human rights and prohibits the use of child labour and forced labour.

Lastly, the standard clauses included within the contracts require compliance with occupational hygiene and safety obligations and employment and social security legislation, with the application of collective labour agreements.

The Group is committed to promoting respect for human rights throughout its supply chain, by encouraging the assessment of the risks and impacts related to human rights, based on the "seven principles" in the UN Guiding Principles Reporting Framework.

## ANTI-CORRUPTION

The Group conducts its business in compliance with the applicable national and international regulations and is committed to implementing all the measures required to prevent active and passive corruption and conflicts of interest.

All the employees and contract workers of the Group, and anyone who has dealings with it, must undertake to comply with the applicable laws and regulations. ASTM considers it fundamental that the professional services provided by its employees and contract workers are conducted according to

the principles of **honesty, transparency, diligence, proficiency, professionalism and efficiency.**

ASTM considers its image and its reputation to be values, and a shared wealth, that needs to be protected and developed by fully disseminating, sharing and adhering to the principles of ethics and conduct set out in the Code of Ethics.

No conduct in contrast with the applicable legislation and the Code of Ethics, adopted by the corporate governance bodies, the company management and – in general – by the employees and contract workers, in performing their jobs or the tasks assigned to them, even if motivated by the pursuit of an interest for the Com-

pany, can be considered justified and, consequently, such conduct will result in the adoption of penalties and disciplinary measures.

### PRIVACY

The Company protects the privacy and confidentiality of the information and data, relating to its employees contract workers or outside parties, gathered as a result of or during the performance of work activities, and all employees and consultant workers are required to adhere to these principles.



## CORPORATE GOVERNANCE

The Group's Corporate Governance model complies with the applicable regulations and conforms to the provisions of the Corporate Governance Code approved by the "Committee for Corporate Governance of Listed Companies" of Borsa Italiana ("Corporate Governance Code"), which the Company has declared it adheres to, and takes account of the size of the business, the ownership structure, and the Group's industry sectors. The Company adopts a traditional management and control system.

The model envisages the following corporate bodies: Shareholders' Meeting, Board of Directors, Board of Statutory Auditors, and the internal committees of the Board of Directors (the Remuneration Committee and the Audit and Risk Committee).

More details on ASTM S.p.A.'s Corporate Governance system and the composition of its internal committees and the Board of Directors are provided in the "Report on Corporate Governance and Ownership Structure" available at the Company's website [www.astm.it](http://www.astm.it)

Details are provided below of the members of the Board of Directors and the Board of Statutory Auditors.

The Board of Directors, appointed by the Shareholders' Meeting held on 28 April 2016, will remain in office for three financial years until the approval - by the Shareholders' Meeting - of the 2018 Financial Statements.

The Board of Directors is currently composed of 15 Directors, of which 5 are women, with 3 Directors aged between 30 and 50 and 12 aged over 50. Seven of the directors are classed as independent in accordance with the Consolidated Law on Finance and meet the independence requirements established by the Corporate Governance Code.

The Board of Statutory Auditors, appointed by the Ordinary Shareholders' Meeting held on 22 April 2014, will remain in office for three financial years until the approval - by the Shareholders' Meeting - of the 2016 Financial Statements.



A well-structured Corporate Governance system allows the Group to operate efficiently and effectively, by facilitating the infor-

mation flows within and outside the organisation, in order to pursue business strategies by ensuring transparency towards all the

Group's stakeholders and creating lasting sustainable value.

## BOARD OF DIRECTORS

Gian Maria Gros-Pietro	Chair
Daniela Gavio	Deputy Chair
Marcello Gavio	Deputy Chair
Alberto Rubegni	Managing Director
Stefania Bariatti	Director
Caterina Bima (3)	Director
Marco Antonio Cassou (4)	Director
Giuseppe Garofano (2)	Director
Giuseppe Gatto (2)	Director
Beniamino Gavio	Director
Barbara Poggiali (1)	Director
Luigi Roth (2)	Director
Anna Chiara Svelto (1)	Director
Stefano Viviano	Director
Marco Weigmann (1)	Director
Cristina Volpe	Secretary

## BOARD OF STATUTORY AUDITORS

Marco Fazzini	Chair
Piera Braja (3)	Standing Auditor
Ernesto Ramojno	Standing Auditor
Massimo Berni	Substitute Auditor
Roberto Coda	Substitute Auditor
Annalisa Donesana	Substitute Auditor

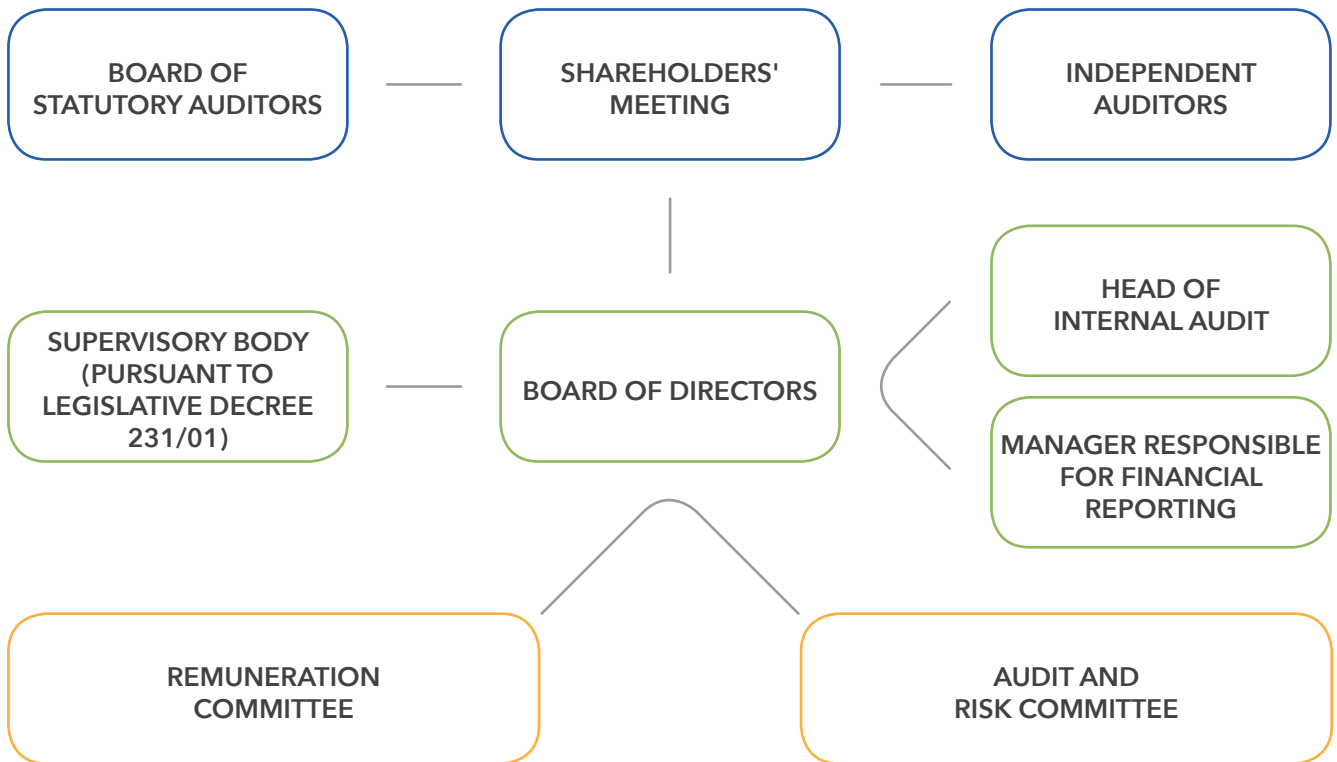
(1) Members of the  
"Remuneration Committee"

(2) Members of the  
"Audit and Risk Committee"

(3) Members of the  
"Supervisory Body"

(4) Resigned from the Board of Directors on  
28 March 2017

## ASTM'S MANAGEMENT AND CONTROL SYSTEM



\* Also performs the function of Related-Party Transactions Committee

### MANAGEMENT OF CONFLICTS OF INTEREST

Since 1 January 2011, the "Procedures for related-party transactions" have been in operation, which were approved by the Board of Directors and adopted in implementation of Article 2391 bis of the Italian Civil Code and the Regulations issued by Consob through resolution no. 17221 of 12 March 2010 (as later amended) on

related-party transactions (Related-Party Transaction Regulations).

These procedures set out the rules governing the approval, management and public disclosure of the related-party transactions carried out by ASTM, either directly or through its subsidiaries, in order to ensure the transparency and substantive and procedural fairness of those transactions.

The Board of Statutory Auditors

has verified that the procedures comply with the Regulations and has confirmed that they consider them sufficient to ensure the standards of transparency and substantive and procedural fairness.

The procedures, which were updated for the first time on 9 November 2012, were subsequently reviewed on 6 March 2014 and 23 January 2017, as part of the information gathering work to be conducted on a three-yearly basis, in accordance with Consob's recommendations.

The Company has not set up a specific committee for related-party transactions. As provided for by the related-party transaction procedures adopted by the issuer and as permitted by the Related-Party Transaction Regulations, the work of the committee identified in the Related-Party Transaction Regulations is carried out by the Audit and Risk Committee. These procedures are available on ASTM's website in the "Governance" section.

The Group's related-party transactions are mainly of a commercial and financial nature.









ASTM

Connected to the future!

**IDEAS, PEOPLE AND VALUES**

Our commitment  
to our employees



# Our commitment to our employees

## EMPLOYEES IN NUMBERS

**P**eople are the most important resource for creating value in the company, as well as an essential element for the company's **success**.

ASTM believes its commitment to human resource management is its responsibility towards the individuals who work for the company, and an opportunity to **promote the development** of the communities in which it operates.

The Group is aware of the important role that the **professionalism** and **abilities** of its employees play in the conduct of its business. Developing and updating **skills**, increasing **motivation**, promoting **talent** and maintaining a work-life

balance are some of the key factors that the Group aims to integrate into its personnel development strategy.

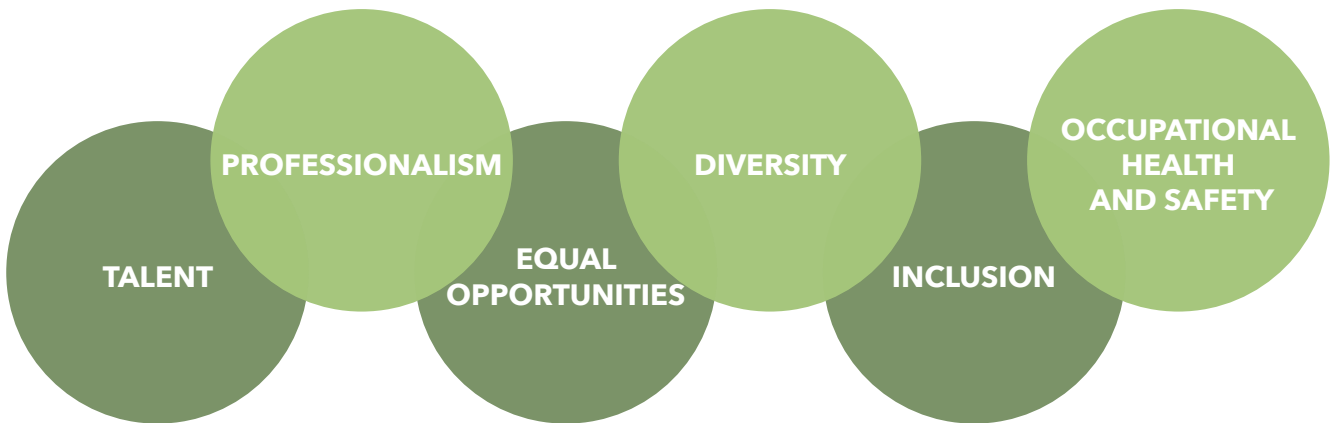
In its personnel management policies, ASTM promotes **stable and continuous working relationships over time**, as well as part-time and flexible working arrangements to meet its employees' need for greater **flexibility and dynamism**. The Group also employs a small number of external personnel to assist in its activities.



Joining ASTM means entering a dynamic environment in continuous development, where the exchange of skills between individu-

als drives the growth of personnel and of the Group, and where the dialogue and interchange between all employees constitutes

a means of sharing projects and achieving targets.

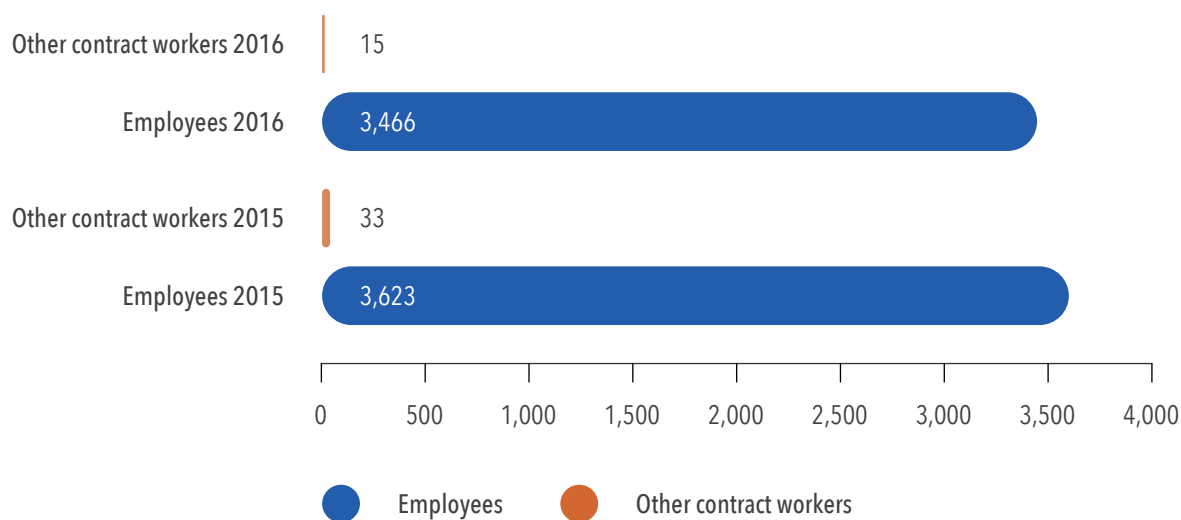


The presence of **women** in ASTM's workforce is another determining factor for the company's development and growth.

The company does not discriminate in terms of ethnicity, sexual orientation, religion, age or income level, and in fact believes diversity enriches the Group as a whole.

Ensuring **safety** in the workplace is also an essential lever within Group corporate policies, which are focused on **prevention and protection** measures for employees, as well as on the widespread diffusion of an occupational health and safety **culture**.



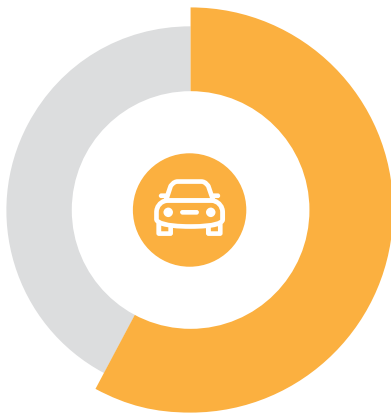
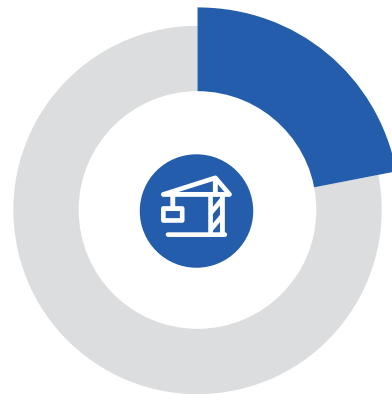
**GROUP PERSONNEL AS AT 31 DECEMBER****GROUP PERSONNEL AND EXTERNAL CONTRACT WORKERS BY GENDER**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Employees	2,923	700	3,623	2,780	686	3,466
Other contract workers	30	3	33	14	1	15
<b>Total</b>	<b>2,953</b>	<b>703</b>	<b>3,656</b>	<b>2,794</b>	<b>687</b>	<b>3,481</b>

The total Group workforce as at 31 December 2016 was 3,481, comprising 3,466 internal employees and 15 external contract workers for specialist tasks.

The fall in personnel was mainly due to the workforce reduction at Itinera S.p.A. This was due to the definitive closure of certain sites that formed part of the business units involved in infrastructure construction, as well as to the lack of vacancies in other ongoing job orders, and to the lack of new job orders, where the redundant personnel could be relocated or hired.

In 2016, 80% of employees and 93% of external contract workers were men.

**GROUP PERSONNEL BY SECTOR AS AT 31 DECEMBER 2016****MOTORWAY CONCESSIONS****58%****CONSTRUCTION****22%****ENGINEERING****8%****TECHNOLOGY AND OTHER****12%**

Personnel by sector breaks down as about 58% of employees in the motorway operation sector, approximately 22% in the construction sector, and the remaining 20% in engineering, technology and other.

## GROUP PERSONNEL BY TYPE OF CONTRACT AND BY GENDER AS AT 31 DECEMBER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Temporary	163	29	192	122	34	156
Permanent	2,760	671	3,431	2,658	652	3,310
<b>Total</b>	<b>2,923</b>	<b>700</b>	<b>3,623</b>	<b>2,780</b>	<b>686</b>	<b>3,466</b>

Demonstrating the Group's ongoing commitment to promoting stable and long-term working relationships, 95% of employees had permanent contracts. This marks another excellent result in relation to the current macroeconomic climate in Italy.

## GROUP PERSONNEL ON PERMANENT CONTRACTS BY PROFESSION AND BY GENDER AS AT 31 DECEMBER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Full time	2,540	467	3,007	2,438	444	2,882
Part time	220	204	424	220	208	428
<b>Total</b>	<b>2,760</b>	<b>671</b>	<b>3,431</b>	<b>2,658</b>	<b>652</b>	<b>3,310</b>

In 2016, 428 employees benefited from part-time contracts, or 13% of permanent employees. They were evenly distributed between men and women, with only a slight imbalance in favour of men (51%).

**GROUP NEW HIRES BY GENDER AND BY AGE**

GENDER	AGE	2015		2016	
		no. of people	% Turnover	no. of people	% Turnover
Women	< 30 years	39		26	
	30-50 years	84		48	
	> 50 years	12		12	
<b>Total women</b>		<b>135</b>	<b>19.29%</b>	<b>86</b>	<b>12.54%</b>
Men	< 30 years	94		56	
	30-50 years	197		148	
	> 50 years	63		66	
<b>Total men</b>		<b>354</b>	<b>12.11%</b>	<b>270</b>	<b>9.71%</b>
<b>TOTAL</b>		<b>489</b>	<b>13.50%</b>	<b>356</b>	<b>10.27%</b>

In 2016, 356 people joined the ASTM Group, a 10.27% turnover rate for new hires.

To make optimum use of human resources, the Group, when planning and defining its workforce, favours candidates from the same cities in which the company operates, or from nearby cities or countries, so that travel to work for its personnel is, where possible, less arduous and more efficient. This is, however, secondary to the need for professionals on site possessing the qualities required by the Group.

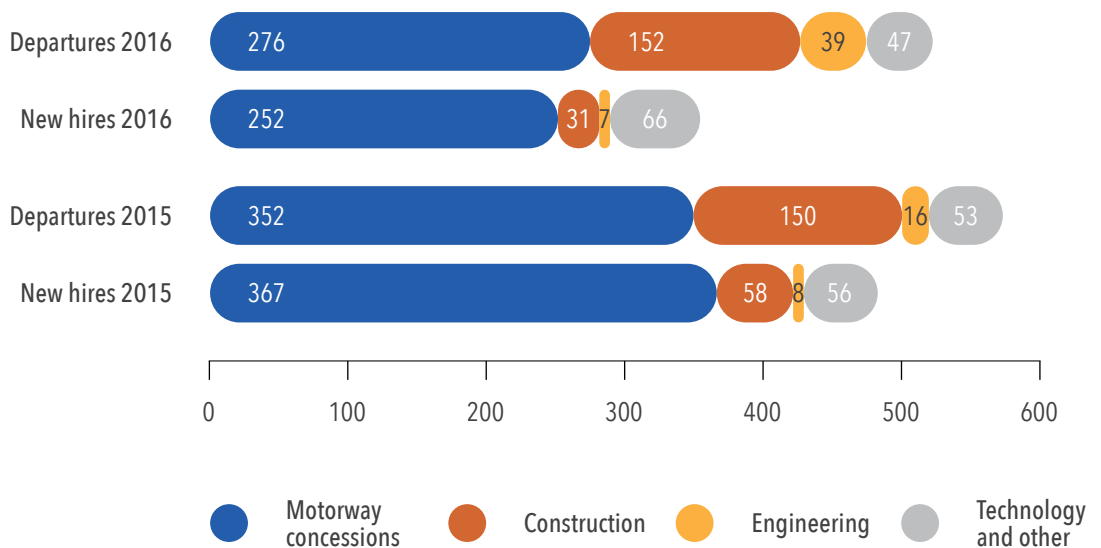
In 2016, 94% of Group executives worked in their country of origin.

The turnover rate for Group departures as at 31 December 2016 was 14.83%. During the year, total departures were 514, of which 98 were women and 416 men, mainly in the 30-50 age group.

**GROUP PERSONNEL DEPARTURES BY GENDER AND BY AGE**

GENDER	AGE	2015		2016	
		no. of people	% Turnover	no. of people	% Turnover
Women	<30 years	37		24	
	30-50 years	69		56	
	> 50 years	32		18	
<b>Total women</b>		<b>138</b>	<b>19.71%</b>	<b>98</b>	<b>14.29%</b>
Men	<30 years	95		63	
	30-50 years	191		203	
	> 50 years	147		150	
<b>Total men</b>		<b>433</b>	<b>14.81%</b>	<b>416</b>	<b>14.96%</b>
<b>TOTAL</b>		<b>571</b>	<b>15.76%</b>	<b>514</b>	<b>14.83%</b>

**GROUP PERSONNEL NEW HIRES AND DEPARTURES BY SECTOR**





Over 70% of new hires and over 50% of departures were in the motorway operation sector that, in 2016, recorded 252 new hires and 276 departures.

Employee turnover in this sector is highly seasonal.

In assessing requirements for individual **skills, abilities and professionalism**, the selection and recruitment of personnel is in strict compliance with current regulations and with the rules set by the Company, and is in accordance with **transparency** criteria.

The Group ensures that the human resources selected match the profiles needed by the company, avoiding favouritism and preferential treatment of any kind, pursuing a policy that recognises **merit**, while respecting **equal opportunities**.

ASTM and its main subsidiaries have developed a policy that allows the monitoring of all steps in personnel hiring, including: identifying the personal profile of the candidate to be hired by a specific company, and the professional category and corresponding remuneration.

ASTM always puts particular emphasis on personnel development: to this end, it believes that a meritocratic approach, professional skills, and honest and proper conduct are key priorities in every decision concerning employees and their careers.

In terms of the sector for motorway **operation** and city parking, the procedure used for personnel selection and hiring refers, where applicable, to the standards of conduct in the Code of Ethics, makes explicit other principles of conduct and control measures that must be observed for new hires, and provides for the arrangement of hiring programmes for **seasonal staff**, if required by specific organisational requirements.

For the **construction** sector, the personnel management and recruitment procedure applies to all company employees and defines specific roles and responsibilities, selection criteria and procedures to ensure the availability of employees able to respond to company needs. Furthermore, given that Itinera operates throughout Italy on **construction sites**, the document provides specific personnel selection procedures that facilitate the whole recruiting process and optimise timeframes.

Specific personnel selection and hiring procedures are envisaged for **Sinelec** and **Euroimpianti Electronics**, which operate in the technology sector. These procedures are implemented not only to ensure the availability of personnel meeting the **technical and professionalism requirements** for each case, but also to ensure the transparency and fairness of the selection processes themselves, characteristics also reflected in the company's business conduct.



## OUR COMMITMENT TO OUR EMPLOYEES

**Sina** and **Sineco**, in the engineering sector, also apply structured personnel selection procedures based on the Integrated Quality Management System and Legislative Decree 231/01. These procedures describe the principles of conduct and operational procedures for personnel selection, education and training.



"ASTM continuously places special emphasis on personnel development: to this end, it believes that a meritocratic approach, pro-

fessional skills, and honest and proper conduct are key priorities in every decision concerning employees and their careers"

Code of Ethics

## EMPLOYEE DEVELOPMENT

The ASTM Group strongly believes in the importance of **training** for the growth of its personnel, and therefore undertakes to develop training courses aimed at developing a high level of professionalism and at enhancing the managerial and technical-vocational skills of its employees.

The content of training provided at Group level depends on the specific activities carried out by the different business areas.

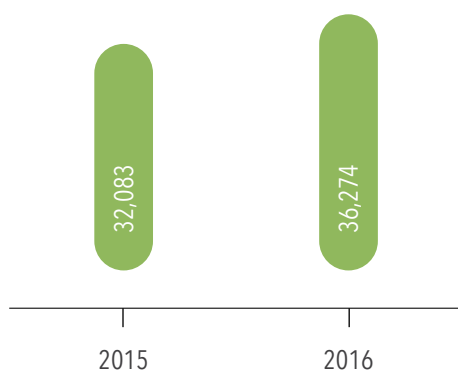
The main training courses can be divided into the following areas:

- **quality:** includes training aimed at providing its own personnel with the skills needed to achieve, maintain and improve quality standards, defined at individual company and Group level;
- **health and safety:** includes training aimed at optimising the information system for managing occupational health and safety;

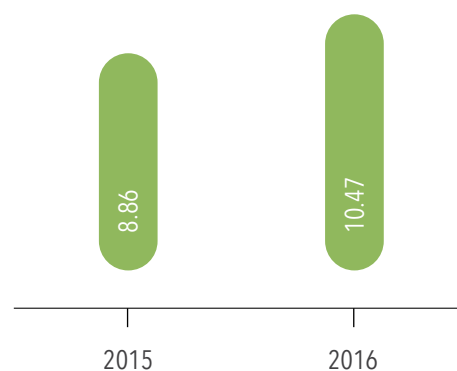
- **technical - professional:** includes training aimed at acquiring and refreshing practical and theoretical technical-vocational skills;
- **interdisciplinary:** includes training aimed at acquiring and refreshing common skills for different organisational levels and professional categories (foreign languages, communication, IT, regulatory updates, etc.).

During the year, the Group delivered a total of 36,274 hours of training, a 13% increase on the previous year. Of which over 7,000 hours were on specific health and safety training programmes. Hours of training per capita also increased - by 18% - from 8.86 in 2015 to 10.47 in 2016.

**TOTAL HOURS OF TRAINING FOR GROUP PERSONNEL**



**HOURS OF TRAINING PER CAPITA FOR GROUP PERSONNEL**



## **SKILL MANAGEMENT AND ON-GOING TRAINING PROGRAMMES**

Group companies implement skills management programmes and promote training and continuous learning development to support the ongoing commitment of employees.

To this end, each company has for some years been mapping its employees' skills by requiring the completion of digital questionnaires on professional skills and work aptitudes, relating to their time at the company as well as training and qualifications received from previous employers, and any qualifications for specific tasks certified by training bodies. This mapping, periodically updated, allows the immediate identification of the individuals needed by the company within the wider Group context.



Within the scope of Construction, Itinera's Management Systems office periodically assesses (at least every six months) the Quality, Environment and Safety training needs of all personnel.

The need for training may arise, for example, from new business goals, the issuing of new regulations, new personnel hires, the modification or addition of new machinery or the opening of new operational units.

Managers then identify the internal and external resources needed to hold such courses.

The Management Systems office ascertains all training needs and prepares the training programme, which is then sent to the Human Resources and Organisation Department for approval. The training programme is usually released annually and updated according to new requirements.

The training may involve theoretical or practical courses, courses leading to a qualification and refresher meetings.

## **ITINERA Constructions**

Within the scope of Engineering, the Quality, Environment and Safety office of Sina e Sineco, through the relevant functions, prepares the Training Programme annually, a document summarising training during the current year and training objectives for the following year.

The Programme is prepared in order to develop skills and knowledge to help achieve company goals and promote the professional growth and development of individual employees.

Training activities are defined following the training needs assessment, on the basis of professional profiles, the skills possessed and professional development programmes.

The Quality, Environment and Safety office, following an assessment of the requests received, develops the training programme, also taking into consideration specific training required by law and the company's strategic decisions defined by senior management for the medium and long term.

Training may involve external courses given by qualified individuals, in-house courses, seminars or conferences, using training on the job where possible to combine the acquisition of skills with their application in the workplace.

## **SINA AND SINECO Engineering**

## DIVERSITY AND EQUAL OPPORTUNITY

"ASTM demands complete respect for the individual and for the applicable labour legislation and strongly condemns illegal, forced or child labour, setting as one of its objectives the creation of a workplace where the individual and the individual's dignity and values are explicitly and continuously respected, rejecting any form of discrimination based on sex, racial or ethnic origin, nationality, age, political opinions, religious beliefs, health status, sexual orientation or economic or social circumstances."

Code of Ethics

### GROUP PERSONNEL BY CATEGORY AND BY GENDER AS AT 31 DECEMBER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	103	16	119	105	17	122
Middle managers	125	16	141	129	20	149
Office workers	1,888	665	2,553	1,795	640	2,435
Manual workers	807	3	810	751	9	760
<b>Total</b>	<b>2,923</b>	<b>700</b>	<b>3,623</b>	<b>2,780</b>	<b>686</b>	<b>3,466</b>

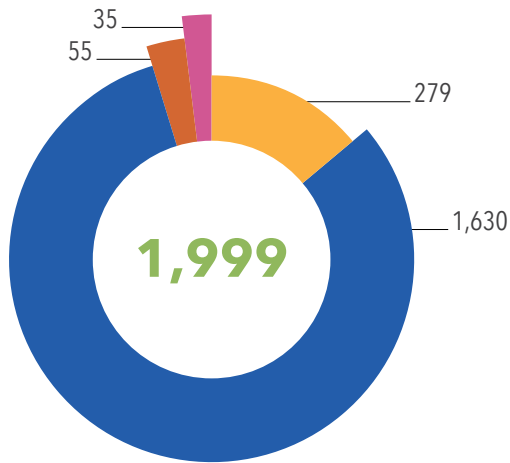
Employees are required to conduct themselves out of respect for the rights and character of colleagues, employees and third parties, regardless of their hierarchical position within the Group.

Group personnel comprised over 70% office workers and about 22% manual workers. Next were executives and middle managers, together comprising about 8% of the total.

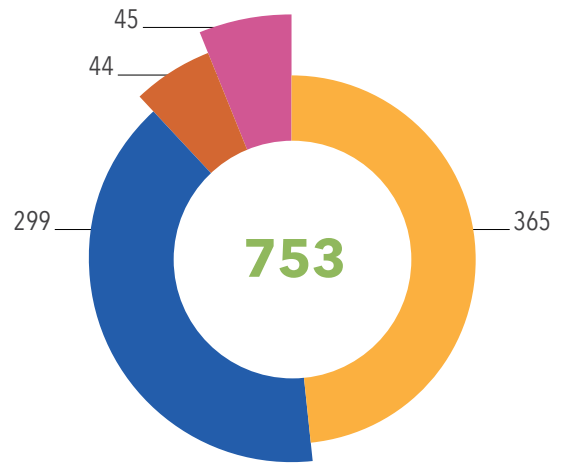
In 2016, 20% of employees were women, a slight increase over the previous year. Over 90% of women were office workers, while 17 women occupied executive positions.

**GROUP PERSONNEL BY CATEGORY AND BY SECTOR AS AT 31 DECEMBER 2016**

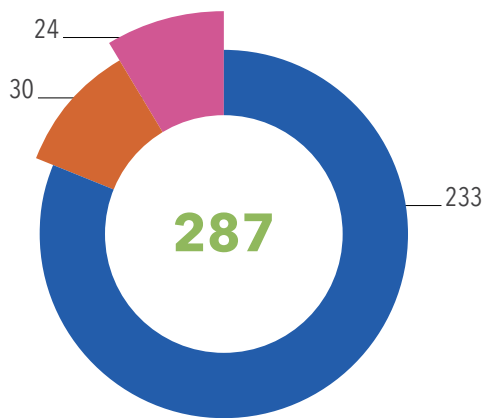
**MOTORWAY CONCESSIONS**



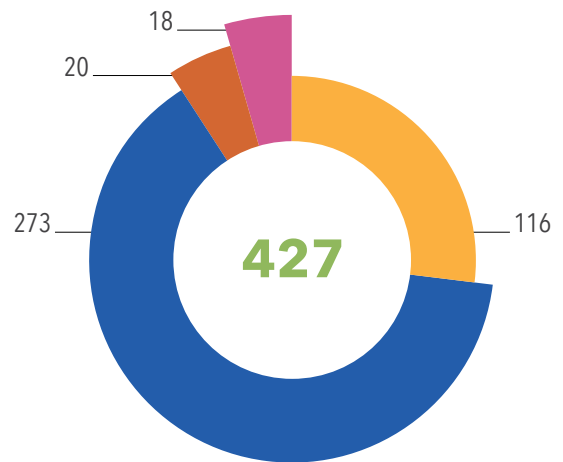
**CONSTRUCTION**



**ENGINEERING**



**TECHNOLOGY AND OTHER**

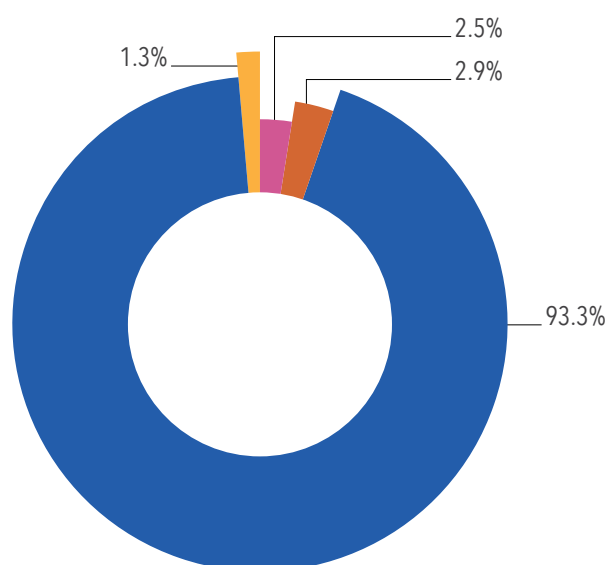


● Executives    
 ● Middle managers    
 ● Office workers    
 ● Manual workers

### FEMALE GROUP PERSONNEL BY CATEGORY AS AT 31 DECEMBER 2016

**686**  
WOMEN IN 2016

**+ 15.6%**  
IN WOMEN EXECUTIVES OR  
MANAGERS COMPARED TO 2015



Executives ● Office workers ●  
Middle managers ● Manual workers ●

### GROUP PERSONNEL BY CATEGORY AND BY AGE AS AT 31 DECEMBER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015				AS AT 31 DECEMBER 2016			
	<30	30-50	>50	Total	<30	30-50	>50	Total
Executives	-	43	76	119	-	42	80	122
Middle managers	-	72	69	141	-	62	87	149
Office workers	108	1,471	974	2,553	74	1,331	1,030	2,435
Manual workers	33	443	334	810	33	405	322	760
<b>Total</b>	<b>141</b>	<b>2,029</b>	<b>1,453</b>	<b>3,623</b>	<b>107</b>	<b>1,840</b>	<b>1,519</b>	<b>3,466</b>

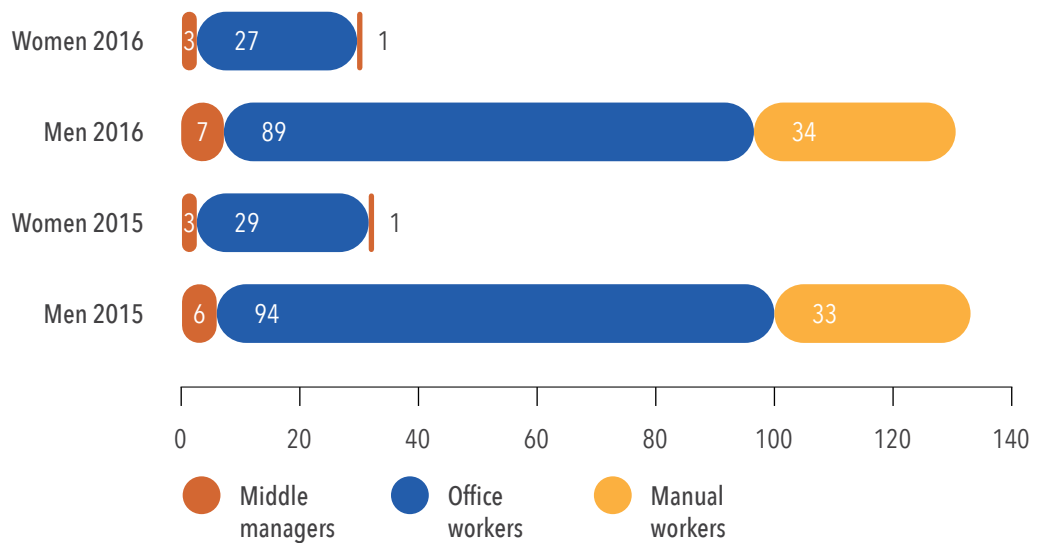
In line with last year, most employees were in the 30-50 age group (53%).



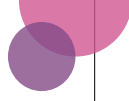
The average age was 46.3, in line with the previous year (45.5). The motorway operation sector had the highest average age, at 51.2, while engineering had the lowest average age, at 43.6.



**GROUP PERSONNEL BELONGING TO PROTECTED CLASSES AS AT 31 DECEMBER**



In 2016, there were 161 employees in the Group workforce belonging to protected classes, including 31 women and 130 men.



1,273 people had a length of service at the company of less than 10 years, 1,768 between 10 and 29 years, and 425 over 30 years.

This data confirms the Group's commitment to establishing strong, long-term working relationships and to investing in its personnel.

### GROUP PERSONNEL BY LENGTH OF SERVICE IN 2016



**81%** OF OUR PERSONNEL  
HAD A LENGTH OF SERVICE OF  
OVER 5 YEARS



**37%** OF PERSONNEL  
HAD A LENGTH OF SERVICE  
OF LESS THAN 10 YEARS



**51%** OF PERSONNEL  
HAD A LENGTH OF SERVICE  
OF BETWEEN 10 AND 29 YEARS



**12%** OF PERSONNEL  
HAD A LENGTH OF SERVICE  
OF MORE THAN 29 YEARS

## COMPENSATION AND BENEFITS

Particular attention is given to **career paths** and the correct **contractual arrangement**, including through the use, in some Group companies, of various national collective labour contract compensation parameters, for example in the motorway operation and parking areas sector, in order to identify and verify employees' performance. In this way, the Group tends to encourage horizontal advancement.

Moreover, senior management analyses each employee's position and results annually and, consequently, career development paths are identified reflecting professional categories and corresponding pay level variations in a wide-ranging and multiple time-period remuneration project.

Regarding that set out by the national collective labour contracts

applied by Group companies, there are payments in addition to benefits that have often preempted the prevailing welfare regulations and that are aimed at supplementing the benefits usually recognised by the legislation. Such benefits, envisaged for full-time employees, include:

- supplementary pension policies, including as an alternative to contractual funds;
- policies for reimbursing medical expenses for employees and family members, even if not envisaged by the relevant national collective labour contract;
- Long Term Care (LTC) services;
- legal and employment contract policies and supplementary assistance (e.g., life insurance and accident insurance policies);
- agreements with trade unions aimed at advances/loans for employees, with favourable terms.



ASTM's remuneration system aims to develop the skills of each individual, and his or her role and responsibilities within the Group. Remuneration policies are de-

signed to attract and develop new, highly professional and talented employees and are structured to increase their motivation. It is essential that a remuneration system

rewards its employees based on the role of each within the organisation and that it is able to recognise individual merit and contributions.

Solutions are also being examined that fall within the scope of tax legislation, such as flexible benefits that, on the termination of some company supplementary contracts, will be compared with a view to optimising employee welfare.

The basic salaries of men and women were equal or almost equal, in particular in the Executive and Manual employee categories, where there was a slight imbalance in favour of women.

#### THE RATIO OF THE BASIC SALARIES OF WOMEN AND MEN IN THE GROUP BY PROFESSIONAL CATEGORY

	2015	2016
	Women/men ratio	Women/men ratio
Executives	1.01	1.09
Middle managers	0.99	0.96
Office workers	0.86	0.87
Manual workers*	1.05	1.08
<b>Total</b>	<b>0.99</b>	<b>1.03</b>

The ratio does not take account of female employees at Itinera S.p.A. as duties at the company are not comparable

## INDUSTRIAL RELATIONS

The activities at ASTM Group companies cover a wide operational area that concerns a significant number of collective labour agreements, and clearly, therefore, a large number of company, regional and/or catchment area second-level agreements.

The national collective labour agreements most representative in terms of number of employees covered are:

- Construction industry and its local supplements;
- Metal industry;
- Motorways and tunnels;
- Tertiary trade;
- Cement products;
- Industry executives;
- Sales executives.

For the management of industrial relations, companies can refer to that envisaged by Law 300/70 "the Workers' Statute", from which are derived all the legislative and national/regional contract regulations, essential reference points in all trade union negotiations.

In the trade union signatories of national collective labour agreements, and their regional representatives, the companies recognise their "natural" counterparts in all discussions and negotiations, whether of a financial/regulatory nature or for managing redundancies.

Given the large number of contracts currently in force, industrial relations constitute a significant part of managing human resources, also taking account of the geographic expansion of the Group's activities both in Italy and abroad.

Within the context of the strategies pursued, which within human resources are focused on growth and performance optimisation, including levels of safety and quality, the primary objective of ASTM Group companies is **work enhancement**, **professional qualifications** and improvements in **employees' satisfaction** levels, within the framework of the rules established, as stated, by legislative and contractual regulations.

The **involvement** of trade union counterparties in an industrial relations system that increasingly serves the pursuit of results benefiting both companies and employees is strategic for achieving objectives.

### Motorway concessions

The above notwithstanding, in 2016, with reference to the motorway sector, the foundations were laid for the discussion and signatory, with the sector's national trade unions, of a **common industrial relations protocol** in line with the rules and regulations of the renewed 2016/2018 C.C.N.L. (collective national labour agreement) - of which the sector companies are signatories. It will be characterised by the development of the respective roles, taking account of the evolution of the context in which the companies operate.

Again in the motorway sector, agreements were signed for the enhanced remuneration and optimised performance of personnel with part-time contracts through a relations process that, with the mutual agreement of the parties, reached a level of **flexibility** in the

working relationship of benefit not only to the company but also to the individual employee.

### Construction and engineering

In 2016, in the construction and engineering sector, a recurring theme in industrial relations was the extremely serious market conditions and the changes in legislation regarding public works that generated redundancies affecting a significant number of workers, above all in the road maintenance sector.

Such conditions have seen sector companies closely involved at ministerial level in defining personnel reduction procedures, preceded by periods when extraordinary social welfare mechanisms were adopted.

### Other sectors

For all other sectors, the renewal of second-level company contracts is ongoing, an area where the Group has always focused particular attention, recognising in the **constructive discussions** between the

company and the company trade unions, as well as in the advance negotiations, a useful instrument for human resource management and for "cooling-off" in the event of potential disagreements.

In all sectors, instruments have also been used as a valid deterrent to absenteeism, with a significant reduction over the past few years in the ratio of hours of absence to workable hours, leading to an absolute reduction in hours of overtime.

Again in 2016, discussions continued in many sectors between the parties, especially at corporate level, on the management, modernisation and adoption of legislation on welfare, as provided for in the 2016 Legge di stabilità (Stability Law).

As to the preceding paragraph, this will provide further incentive for the parties to find solutions, which are economically sustainable, for strengthening and sup-



plementing many agreements that may converge with the new welfare system, such as national health service supplementary health policies, and contractual and insurance policies operating in supplementary pension schemes; in many cases, several Group companies have signed agreements on the same matter ahead of national collective agreements.

Where applicable, usability assessments may be carried out, including on an experimental basis, of so-called "smart working" labour contracts to strengthen flexibility, and provide additional assistance to employees, such as **flexible benefits** or similar instruments.

Industrial relations can also encompass the entire negotiating process, often collective, regarding the **professional training** of personnel, which envisages the involvement of both union representatives and affected workers, with the aim of maintaining high professional standards. The

Fondimpresa/Fondirigenti/Fonte system provides the companies solid support in the planning and preparation of training, as well as important additional financial assistance with training costs.

Finally, at Group level, trade union membership in the motorway sector constitutes on average about 50% of the workforce; employees' subscriptions to supplementary pension schemes and supplementary health care policies, where provided for, is very high among those entitled to it.



## HEALTH AND SAFETY

**A**STM believes workers' health and safety is of primary importance, not only in order to comply with regulations but as part of an ongoing commitment to **improve** working conditions. This commitment is focused on the adoption of policies to ensure that every Group employee enjoys an appropriate and hazard-free working environment as well as working conditions under which individual dignity is respected.

Employees are protected through the dissemination of a **culture** of safety, the promotion of responsible behaviour, and the monitoring and assessment of hazardous situations.

Adopting employee health and safety solutions is particularly important for the construction sector and for the motorway operation and city parking sector because employees are more exposed to risks and hazards in their daily work.

In 2016, 73 accidents were recorded, mostly occurring in the workplace, a 19% decrease compared to 2015. The data below refers to the total Group workforce and therefore also includes, for example, temps, interns and external contract workers.

### GROUP PERSONNEL INJURIES AND OCCUPATIONAL DISEASES BY GENDER

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Occupational diseases	5	-	5	6	-	6
Injuries	80	10	90	63	10	73



## TYPE OF GROUP PERSONNEL INJURIES BY GENDER

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Injuries in the workplace	66	7	<b>73</b>	53	5	<b>58</b>
Travel injuries	14	3	<b>17</b>	10	5	<b>15</b>
Total	80	10	<b>90</b>	63	10	<b>73</b>

## HEALTH AND SAFETY INDICATORS FOR GROUP PERSONNEL BY GENDER

	2015			2016		
	Men	Women	Total	Men	Women	Total
Severity Rate <sup>1</sup>	0.39	0.31	<b>0.38</b>	0.37	0.13	<b>0.33</b>
Rate of occupational illness <sup>2</sup>	0.20	-	<b>0.17</b>	0.26	-	<b>0.21</b>
Rate of absenteeism <sup>3</sup>	3.50	4.30	<b>3.64</b>	4.21	4.82	<b>4.32</b>
Injury rate <sup>4</sup>	16.36	10.01	<b>15.28</b>	13.63	10.44	<b>13.08</b>

<sup>1</sup> The injury severity rate is the ratio of the total number of working days lost as a result of injury to the total number of hours that could be worked in the same period, multiplied by 1,000

<sup>2</sup> The occupational illness rate is the ratio of the number of cases of occupational illness to the total number of hours worked in the same period, multiplied by 200,000

<sup>3</sup> The rate of absenteeism is the ratio of the total days of absence to the total number of hours that could be worked in the same period, multiplied by 100

<sup>4</sup> The injury rate is the ratio of the total number of injuries to the total hours worked in the same period, multiplied by 1,000,000

The injury severity rate and the injury rate both saw a 14% decrease compared to 2015.

There were 31,431 days of absence recorded during 2016, and 1,911 lost days - a 20% reduction.

### GROUP PERSONNEL DAYS OF ABSENCE BY GENDER

	2015			2016		
	Men	Women	Total	Men	Women	Total
Absence <sup>1</sup>	22,308	5,985	<b>28,293</b>	25,127	6,305	<b>31,431</b>
Days lost <sup>2</sup>	2,037	348	<b>2,385</b>	1,777	134	<b>1,911</b>

<sup>1</sup> Absences mean days in which the worker was not present at work, not simply because of injury or illness. Absences exclude agreed days off, such as holidays and study, maternity or paternity leave.

<sup>2</sup> Days lost are days when a worker or workers did not work (hence "lost") because they were unable to carry out their normal work due to an accident at work or occupational illness. A return to work with limited duties or doing a different job for the same organisation do not count as days lost.

## INTERNAL COMMUNICATION: #AGORÀ

Since 2016, the ASTM Group has had a new Intranet portal, **#Agorà**, dedicated to Group employees.

The new Portal is a work and information tool for sharing work material within the Company, a key reference point for internal communication. The portal allows access to communications, managerial procedures, press releases and corporate policies. On the **#Agora** homepage are, among other things, links to the Group's corporate profile, press releases, the main articles on Group activities, press, and the main news and events concerning the various companies, as well as key company documents.

Group employees are involved in improvements to the portal: they are, in fact, asked to make suggestions on improving existing entries.

To also encourage teamwork online, the portal's homepage features **Agorà Tell Us**, where employees' work stories and experiences are posted. It is an open space where employees can share their work with others.

The portal is only accessible via the Group Intranet and not via external search engines.



**"This is an important innovation for creating a new model for communication within the Group, putting people and employees' everyday activities centre stage."**





ASTM

Connected to the future!

**IDEAS, PEOPLE AND VALUES**

# Respect for the environment



# Respect for the environment

## ENERGY CONSUMPTION

### Energy consumption

In 2016, the ASTM Group's energy consumption totalled 656 thousand GJ, down slightly on the previous year (-3.6%).

The development and implementation of monitoring systems designed to reduce the energy consumption of all the Group companies is currently being assessed.

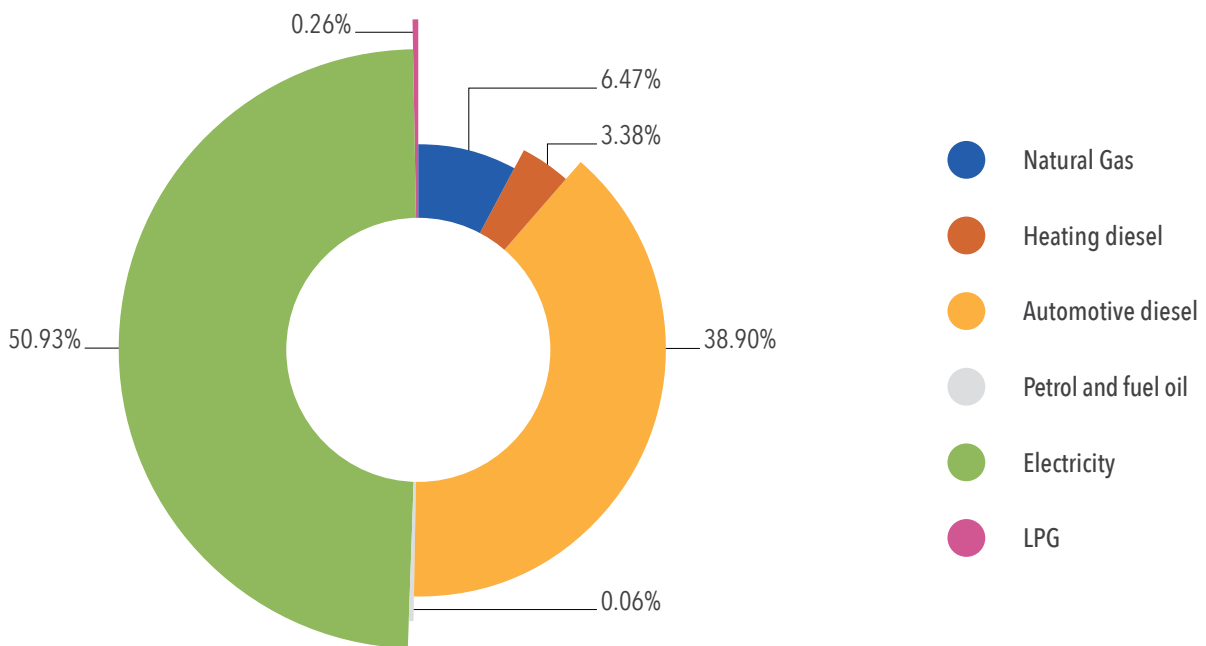
### ENERGY CONSUMPTION OF THE ASTM GROUP\*

SOURCE OF CONSUMPTION	2015	2016
	Total	Total
Natural gas (m <sup>3</sup> /000)	1,366	1,087
Heating diesel (l/000)	698	601
Automotive diesel (l/000)	7,168	6,928
Fuel oil (l/000)	1	1
Petrol (l/000)	19	11
Electricity (kWh/000)	93,183	92,824
<i>of which purchased</i>	93,051	92,759
<i>of which photovoltaic</i>	380	324
<i>fed into the grid from photovoltaic systems</i>	248	259
LPG (l/000)	48	65

\*Some of the energy consumption figures are estimates made using the best available methods.

## ENERGY CONSUMPTION OF THE ASTM GROUP BY SOURCE IN 2016

(percentages in amounts in GJ)



Autostrada Torino Savona S.p.A. has installed 4 photovoltaic systems: two systems at the motorway toll stations of Fossano, one at Carmagnola, and one at the Bric Tana tunnel.

LED lighting systems have also been fitted to provide permanent lighting in tunnels that are less than 500 metres long.

The Asti-Cuneo Motorway has two photovoltaic installations in operation (Castelletto Stura and S. Albano toll gates) and one photovoltaic installation at the Govone toll gate, which entered operation in September 2016.

# EMISSIONS

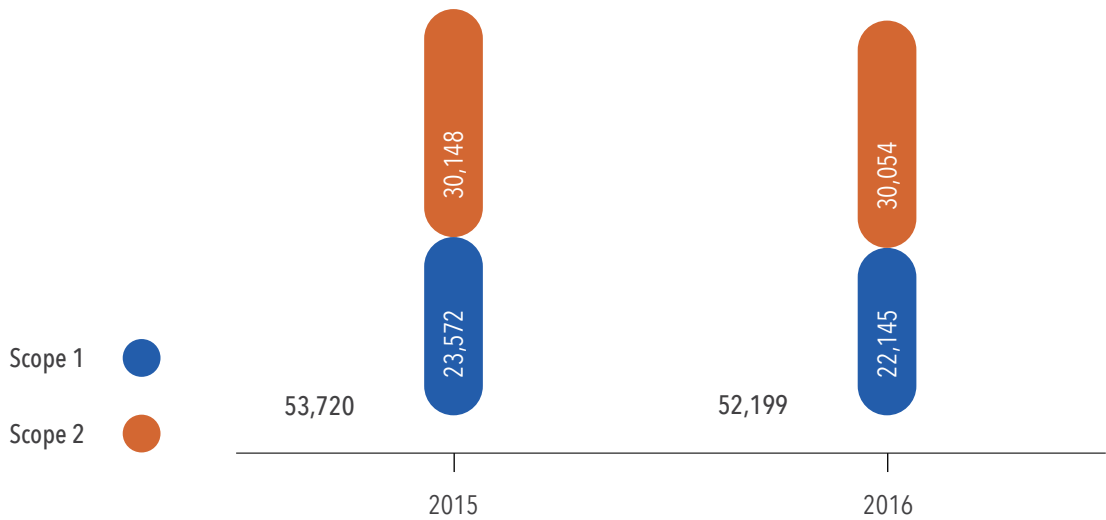
\*Scope 1 (direct emissions): this category consists of emissions from sources that are owned or controlled by the organisation

\*\*Scope 2 (indirect emissions): this category consists of emissions resulting from electricity consumption.

In 2016, the direct CO<sub>2</sub> emissions (Scope 1\*) amounted to 22,144 tonnes, and indirect emissions (Scope 2\*\*) totalled 30,054 tonnes.

Emissions have fallen since 2015, and direct emissions in particular have decreased by 6.06%.

## TOTAL DIRECT EMISSIONS (SCOPE 1) AND INDIRECT EMISSIONS (SCOPE 2) [T CO<sub>2</sub>]



Sources used for conversion and emission factors: ISPRA (2016) and Italian Ministry for the Environment (2016).



According to recent scientific reports and studies, auto vehicle emissions in general are steadily falling and, within the overall emissions in metropolitan areas, the majority of Greenhouse Gas (GHG) emissions come from heating systems and industrial production processes.



## WATER CONSUMPTION

In 2016, the companies of the ASTM Group consumed a total of over 160,000 m<sup>3</sup> of water, down on the consumption recorded in the previous year (-6.4%). Of the water used, 66% was taken from the mains water supply, 22% from rivers and 12% from groundwater.

### WATER CONSUMPTION OF THE ASTM GROUP\*

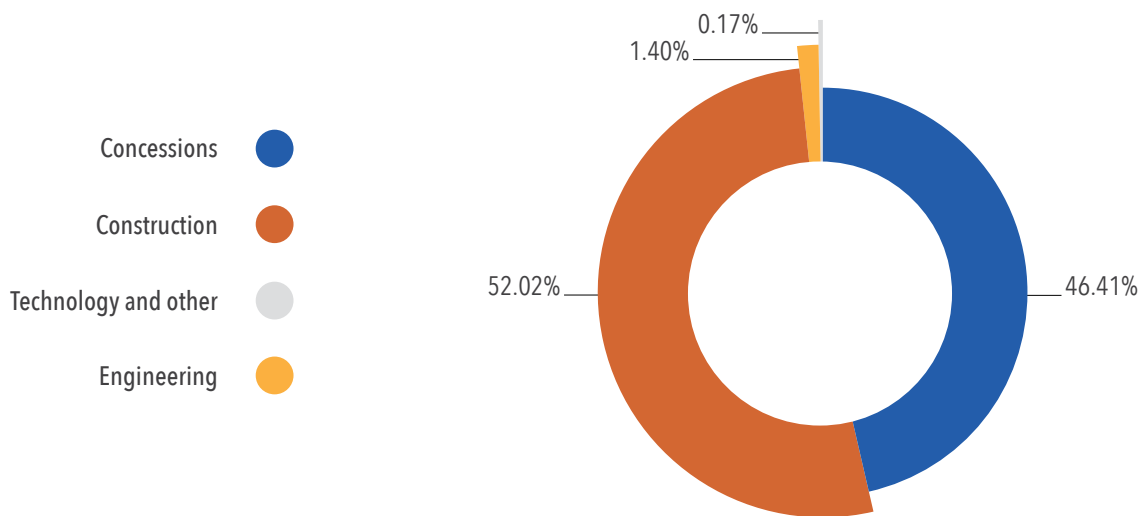
m <sup>3</sup>	2015	2016
	Total	Total
Taken from mains water	115,093	106,839
Taken from rivers	39,000	35,576
Taken from groundwater	19,210	19,861
<b>Total water</b>	<b>173,303</b>	<b>162,276</b>

\*Some of the water consumption figures are estimates made using the best available methods.



**WATER CONSUMPTION OF THE ASTM GROUP PER BUSINESS IN 2016**

(percentages of amounts in m<sup>3</sup>)



As shown in the chart, over 50% of the water consumption is in the construction sector. The water use mainly takes place in the worksites, with a consumption of 84,414 m<sup>3</sup>.

In the concessions sector, the maintenance sites have a consumption of 75,309 m<sup>3</sup>, which represents around 46.4% of the Group's total consumption.

Water use in the engineering and technology sectors is much lower: water use amounted to 2,553 m<sup>3</sup> of water, mainly for use in locations of operation.

## WASTE

In keeping with the Group's policy, waste products generated are recycled, wherever possible, and the remainder are disposed of in the most suitable sites according to the type of waste concerned. The Group's waste management policy is designed to ensure that waste is managed sustainably by increasing, the already high, percentage of recycled waste and continuing to ensure the safe disposal of hazardous waste.

In 2016, the Group generated a total of around 376 thousand tonnes of waste, up 17% on 2015, with 99.96% classed as non-hazardous waste. The type of waste generated is not uniform due to the variety of businesses managed by the Group. The highest amount of waste comes from the construction sector (99% of the total); followed by the concessions sector

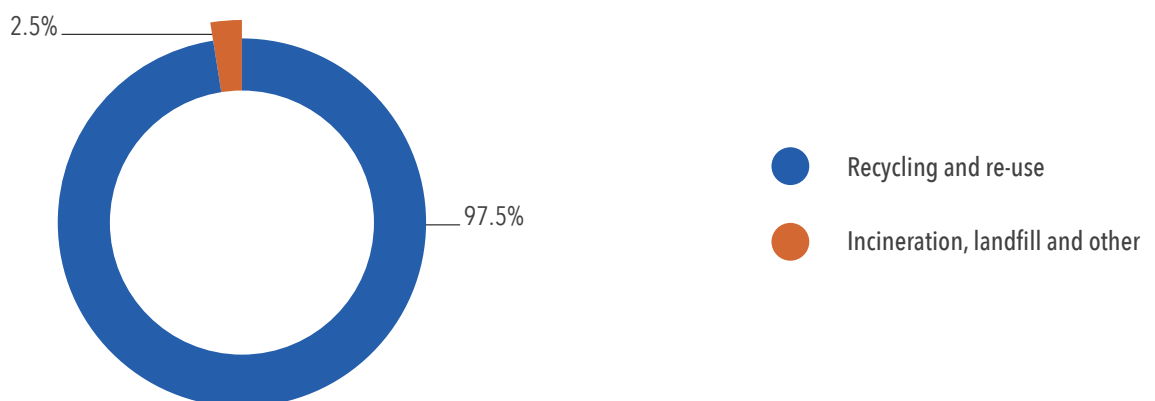
with 0.75% (2,822 t); and, lastly, by the engineering and technology sectors, which only produce a total of 0.03% of the waste, representing a total of 117 t.

For the construction sector, the waste products are typically related to "construction and demolition" and they are almost all sent for recovery. Indeed, the respective companies internally operate and manage several recovery plants for milled asphalt.

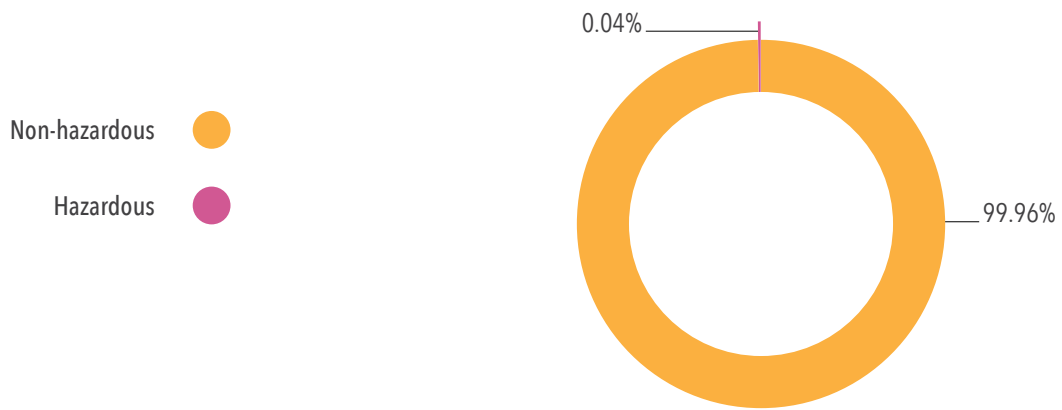
In 2016, almost all the waste generated by the Group was recycled and re-used (97.5%), while around 2.5% was disposed of by landfill, incinerated or disposed of in another way.

Waste disposal is managed through municipal services and specialist companies.

### THE ASTM GROUP'S WASTE ACCORDING TO DISPOSAL METHOD IN 2016



**THE ASTM GROUP'S WASTE BY TYPE IN 2016**



**THE ASTM GROUP'S WASTE ACCORDING TO DISPOSAL METHOD**

DISPOSAL METHOD	2015				2016			
	Hazardous	Non-hazardous	Total	% Total	Hazardous	Non-hazardous	Total	% Total
Re-use [t]	-	-	-	-	-	246,146	246,146	7%
Recycling [t]	45	300,569	300,614	9%	105	120,309	120,415	3%
Incineration [t]	0.3	142	142	-	0.1	-	0.1	-
Landfill [t]	42	941	984	-	32	648	680	-
Other [t]	39	20,244	20,283	1%	17	8,713	8,729	-
<b>Total</b>	<b>126</b>	<b>321,896</b>	<b>322,023</b>	<b>100%</b>	<b>155</b>	<b>375,816</b>	<b>375,970</b>	<b>100%</b>

## NOISE MANAGEMENT

**W**ithin the Group's sector of operations, attention to noise is particularly important for the concessions and constructions businesses.

For the concessions sector, vehicles travelling on transport infrastructure such as roads and motorways represent a source of noise pollution that is widely spread throughout local environments and is significant, especially when the infrastructure is located near population centres and urban areas. The Group is aware of this potential negative impact on society and is implementing a wide range of actions and impact studies for the design and construction of the mitigation measures. In accordance with the provisions of the Italian framework law on noise pollution, a public consultation has been launched on the choices made, with the production of a Noise Containment and Reduction Plan. The Group has been a pioneer in the use of silent asphalt, which combines the acoustic effects of sound absorption with the draining effect and related benefits for the safety and driving comfort in wet weather.

In 2015, capital investments were made for the construction of noise barriers for a total of €5.5 million. Specifically, SALT invested €2.5 million and Autostrada dei Fiori carried out noise mitigation work along the sections in the municipalities of Imperia, Ceriale and Loano for a total of €3 million. In 2016, capital investments total-

ing €2.34 million were made by the operators ATS, AdF, SALT and SATAP (A21). As in the previous years, noise barriers were installed on the A4 as part of the improvement work for the motorway.

Around 90 km of noise barriers have been installed along the Group's motorway sections.

The vast majority of the motorway sections in operation have a porous drainage surface, consisting of asphalt concrete with a high percentage of empty spaces, which also gives this type of surface noise reducing properties. The total length of drainage/noise reducing surface is around 1,300 km of motorway carriageway.

In the construction business, the noise generated by worksite operations (excavation, assembly of structures, concrete mixers) and the movement of operational equipment, can be a source of disturbance to the local community, primarily in relation to the location of the worksite. For fixed operational activities, noise impact studies are conducted or assessments of compliance noise zoning limits imposed by Municipalities concerned by the works. For temporary and mobile worksites, on the other hand, specific applications for exemptions are submitted to the Municipality, in view of the complexity of the work and the exceeding of the municipal noise zoning limits imposed. In any event, any reports of noise disturbance are carefully assessed so that the appropriate measures can be adopted to minimise the impacts.

**NOISE BARRIERS**

	(LENGTH IN KM)
SATAP S.p.A. (A4)	23.4
SATAP S.p.A. (A21)	15.5
Autostrada Torino Savona S.p.A.	5.2
Società Autostrada Ligure Toscana - SALT S.p.A.	22.5
Autocamionale della Cisa S.p.A	3.1
Autostrada Asti-Cuneo S.p.A.	8.4
Autostrada dei Fiori S.p.A.	9.7
SAV S.p.A. - Società Autostrade Valdostane	2
<b>Total</b>	<b>89.8</b>


**SATAP CONCESSIONS**  
 (A4 Turin - Milan)

The noise reduction measures were included in the planning of the improvement work for the

motorway stretch. The project involves the addition of a series of noise reduction systems, scaled according to the indicators and national limits.

The implementation of the measures, envisaged in the 2013-2017 Action Plan, is now in the advance phased and has been completed in many parts of the section.



### "OUTWARD NOISE" PROCEDURE - ITINERA

Itinera's Integrated Management System includes operating instructions for noise management. The operating instructions for Outward Noise are contained in a procedure that establishes the operating methods and responsibilities for the management and monitoring of sources of outward noise. The purpose of this procedure, which applies to mobile and

fixed sources of noise within temporary and mobile worksites, is to govern the control of noise emissions and ensure that the limits set by the applicable regulations are adhered to and the achievement of any environmental objectives and targets.

From an operational perspective, the main check conducted in the worksites to measure the noise impact is sound-level detection. The measurement is carried out by a

noise technician before the worksite is set up in order to determine the acoustic characteristics of the area.

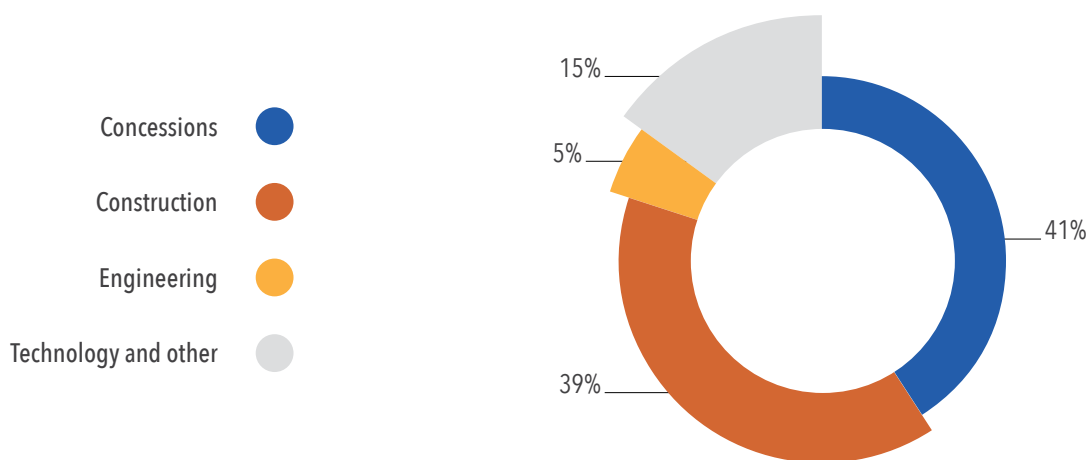
The noise emissions of a worksite are influenced by numerous factors (type of work being carried out, weather conditions, noise outside the worksite, etc.) and must be duly taken into account in the assessment.

## TRANSPORT OPTIMISATION

ASTM's transport management policy requires the limitation, as much as possible, of unnecessary travel and the use of a company fleet of environmentally friendly vehicles.

### FUEL CONSUMPTION OF THE ASTM GROUP (I)

SOURCE OF ENVIRONMENTAL IMPACT	2015		2016	
	Consumption/ impact	% of the total	Consumption/ impact	% of the total
Concessions	2,094,270	38%	2,019,862	41%
Construction	2,337,111	42%	1,901,342	39%
Engineering	340,837	6%	269,297	5%
Technology and other	763,256	14%	740,162	15%
<b>Total</b>	<b>5,535,474</b>	<b>100%</b>	<b>4,930,663</b>	<b>100%</b>







## CONSTRUCTION

The assessment of the most significant environmental impacts for the construction sector only considers those related to fuel

consumption and atmospheric emissions of  $\text{CO}_2$  due to fuel consumption. For emissions due to exhaust and noise, the impact is minimal because almost the entire vehicle fleet is recent (two years

old on average). Oil spills due to breakages are minimised through specific and scheduled maintenance of the equipment.



## ENGINEERING AND TECHNOLOGY

The companies of the technology sector manage the environmental impacts of transport by limiting, as much as possible, unnecessary travel not strictly linked to the companies' operations, namely: scheduled maintenance, corrective maintenance, or installation of new systems.

The assessment of the most significant environmental impacts only considers the impact related to consumption associated with the above activities.

The companies of the engineering sector have continued their strategy of streamlining and ongoing renewal of their vehicle fleets through three-year leases of vehicles powered by low environmen-

tal impact fuels and compliant with the most recent emissions regulations. In addition, Sineco and Sina have an Environmental Management System with a specific procedure for the management of vehicles. The goal is to replace the company fleet with environmentally-friendly vehicles.

## MANAGEMENT OF ENVIRONMENTAL ASPECTS

A significant number of the Group's major companies, in terms of level of operations and number of personnel, have adopted or are developing an "Environmental Management System". This system is essential for identifying the Group's main environmental impacts and for developing a mitigation process for those impacts.

Specifically, Satap (A21 stretch), Itinera, Sina, Sineco and Euroimpianti Electronic have decided to adopt an ISO 14001 certified Environmental Management System, ensuring the application of specific management procedures for the continuous improvement of their environmental performance.

The Group companies operating in the technology and construction businesses have also developed an integrated management system (Quality, Safety, and Environment) to ensure that all the applicable safety, health and environmental laws have been identified, assessed and all the necessary actions have been taken to ensure legislative compliance in all the operational units.



**5**  
ISO 14001  
CERTIFIED COMPANIES



**12**  
COMPLAINTS AND NON-  
COMPLIANCE EVENTS  
HANDLED AND RESOLVED  
IN 2016

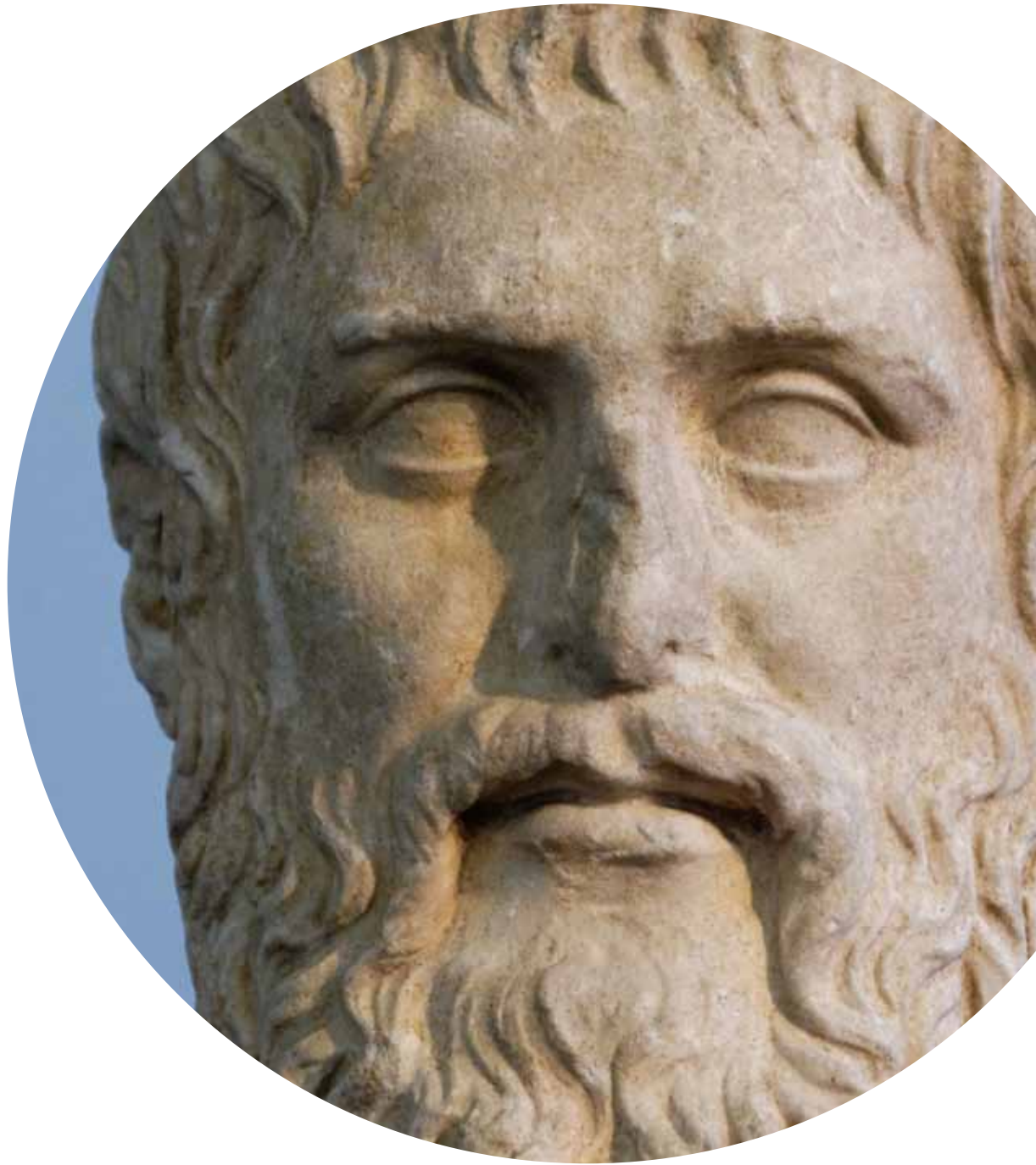
In 2016 there were 12 complaints relating to environmental impacts. Eight of these complaints were managed by SALT for waste left by unknown persons on lots owned by the company, while case was managed by Autostrada dei Fiori in relation to noise due to traffic. Three environmental non-compliance cases were also handled relating to two orders of Itinera.



COMPLIANCE WITH  
ENVIRONMENTAL LAWS AND  
REGULATIONS

No significant penalties were reported for the Group companies, in 2016, for failure to comply with

environmental laws and regulations.

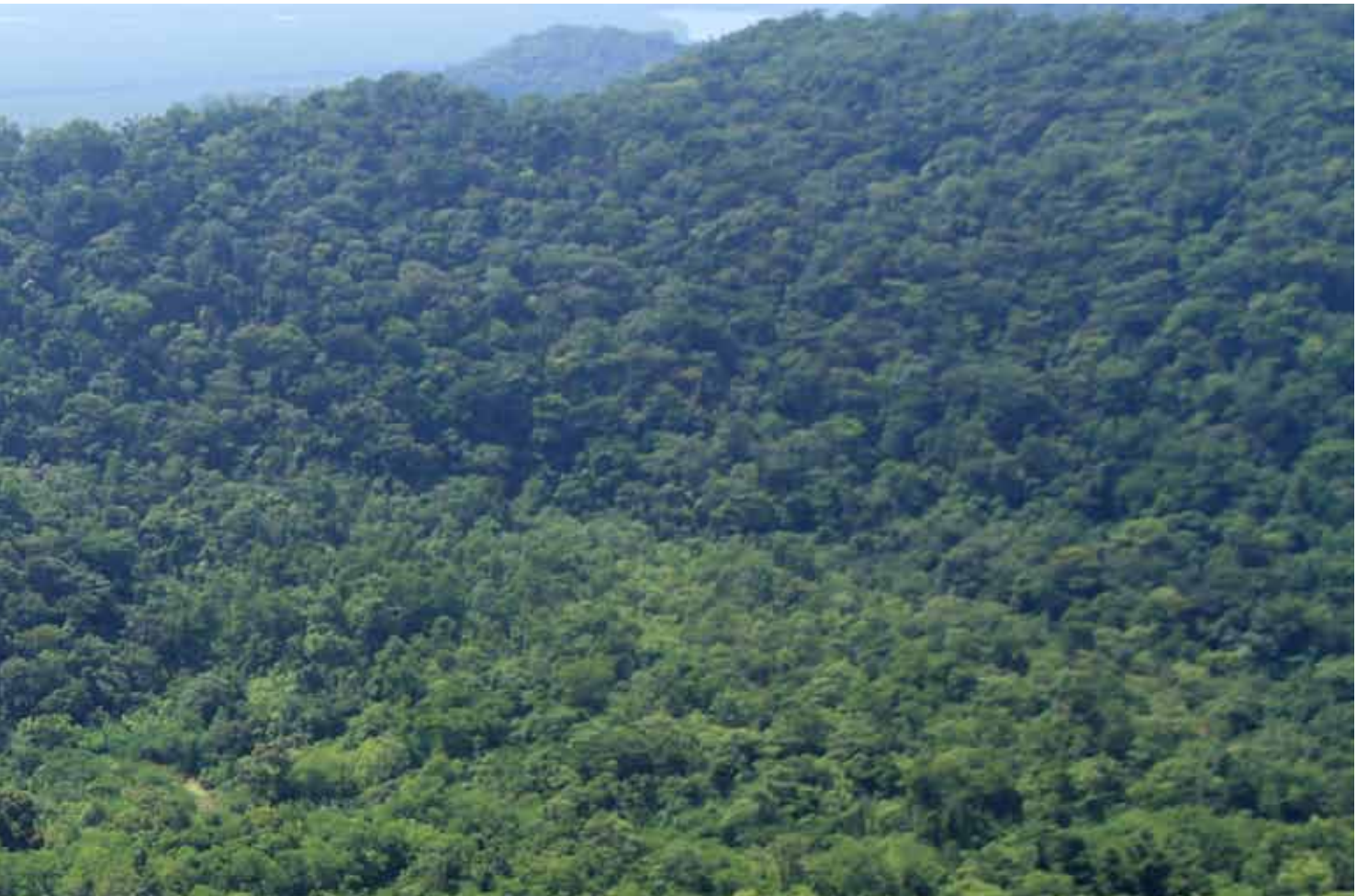


"You can buy a man's work, his experience, his advice, but you can never buy the enthusiasm, initiative and devotion of the heart, mind and soul.

These things you must earn with your loyalty to him."

**PLATO**





Connected to the future!  
**IDEAS, PEOPLE AND VALUES**

# The commitment to the community



# The commitment to the community

## THE SUPPLY CHAIN

**A**STM conducts its business and manages its supplier relations in strict compliance with the law, the principles in the Code of Ethics and internal procedures. It also requires its employees and contract workers to comply in the same manner and to avoid any potential conflicts of interest with the Company.

Employees must comply with standards of impartiality and fairness in the management of relations with, and selection of, suppliers and service providers, avoiding any potential conflicts of interest and promptly notifying the Company of any such conflicts.

For all operators, the transparency of the process of awarding works for motorway infrastructure construction is guaranteed by legal provisions that the operators are obliged to comply with for the awarding of such works. A fixed percentage of the total work must be awarded through a public call for tenders, and a percentage may be awarded directly. Official ANAS pricing is in place both for awarding works directly and through a public call for tenders, and, on the basis of this, threshold prices are set for the works (bids are made below ANAS pricing). Furthermore, the "costs of design and construction of revertible assets" and the "costs of motorway infrastructure maintenance" incurred by motorway operators are subject

to checks by the Ministry of Infrastructure and Transport ("MIT" or "granting body"). Projects relating to the construction of revertible motorway assets are organised on the basis of ANAS pricing and are subject to the MIT's approval, as are reductions applied for works awarded within the Group. For public tenders, the awarding of contracts, in compliance with industry regulations, requires the appointment of a special tender commission, composed of members directly appointed by the MIT. The Commission operates in complete autonomy and, upon completing its work, publishes a list ranking the tenders submitted, by means of which the operator proceeds to awarding the contracts. The project's progress is monitored by a special inspection commission appointed by the MIT itself. Finally, on a monthly basis, a report on the progress of the investments and maintenance is sent to the regional inspection office (Ufficio Ispettivo Territoriale) within the MIT's jurisdiction.

The annual plan for motorway infrastructure maintenance is prepared by the operator and sent to the regional inspection office within the MIT's jurisdiction. Almost all maintenance costs derive from the application of contracts that take ANAS pricing as a reference, net of reductions. Every six months, the operators send the MIT a summary of maintenance activities car-

ried out in the period, and a comparison with the annual forecast given in the financial plan that is appended to the agreement.

In the same way, ASTM identifies and selects contract workers and consultants in a fully impartial, autonomous and independent way.

Suppliers' work and services, although varied in relation to the different Group sectors of operations, must ensure, in addition to the required quality standards, full respect for human rights and the highest standards of working conditions, workers' health and safety, ethics and respect for the environment.

Any conduct in violation of the above principles, also contained in the Code of Ethics, shall be regarded by the Company as a serious breach of the duty of propriety and good faith in the execution of the contract, an infringement of the relationship of trust and just cause for terminating the contractual relationship.

The supply chains for the construction, motorway operation and

technology sectors possess certain characteristics:

All companies have a Supplier Register, updated and maintained, as per the individual companies' procedures, by the Purchasing, Contracts or Quality office;

- For each purchase requirement, a Purchase Request must be issued, generated by the officer (there is one or more officer for each company line) and must be approved by the officer's Manager;
- In some cases, before being sent to the Purchasing office, the request must be validated by the Controller, who checks the exact expenditure allocation and cost coverage (in some companies, there is no such step, and expenditure coverage is checked by the officer's Manager);
- Once the Purchase Request has been received, the Buyer starts the supplier selection process, checking the suppliers in the Register and requesting at least 3 offers from different suppliers. The tenders and the progress of negotiations are summarised in a document, to highlight the reasons leading to the choice of



## ENGINEERING

The number of suppliers on the specific register depends on the type of activity. The register's ultimate aim is to ensure a sufficient number of Suppliers, including through the registration of new companies and/or invitations to tender aimed at assessing technical abilities and, for inclusion on the register, ethical and moral standards.

In addition, as per the ISO 9001 Quality Management System, suppliers used are assessed by senior management with the support of the relevant technical Managers and the business function in charge of quality. The assessment takes account of various factors, including economic competitiveness, case histories, conditions offered and, once the work is complete, the quality and execution of the services rendered. The as-

essment as a whole, including in terms of efficiency, ethics and morals, has a bearing on the Supplier's suitability and, consequently, on the potential for a commercial relationship with said Supplier. Finally, a positive assessment influences inclusion on the company register.

supplier. Once negotiations are complete, the Buyer's Manager checks the summary and all conditions before sending the Purchase Request.

- The Purchasing/Contracts office draws up the Purchase Order (PO), which, after being signed by the various managers, is signed by the Legal Representative or Attorney.

- Upon receipt of the delivery note, the officer that activated the process by issuing the Purchase Request checks and approves the document, having ensured that the delivery is consistent with the order contents.



## SUPPLIER ASSESSMENT BASED ON WORKING CONDITIONS

For **operators**, there is currently no prior supplier selection policy. Services and works contracts include a clause by which the supplier agrees: a remuneration not less than that set out in the applicable national collective labour agreement; to strictly observe the regulations and provisions of the national and regional collective agreements; and to strictly observe the legislation and regulations on the protection, safety, health, insurance, assistance, contribution and remuneration of workers, correct taxation and payment of instalments, and the indemnification of the company. For the **construction** sector, on the other hand, supplier screening

for labour practices depends on whether the work is be carried out in Italy, the EU or elsewhere.

For Italy and the EU, the validity of the documents is comprehensively checked a priori regarding all workers to be assigned to the work. The validity of remuneration, tax, contributions, social security, health and safety, education, information and training are therefore assessed.

For outside Europe (still being organised for 2015) a specific focus on child labour is also included in such screening (both for on-site sub-contractors and for external manufacturers of materials then installed on-site), as well as living conditions in camps (food, accommodation, leisure activities, transport from and to the country of origin, where applicable, etc.).

Suppliers operating at external

production units shall be contractually obliged to provide for specific on-site audits of such aspects. Finally, **engineering** sector companies have implemented a supplier assessment system based on professional-technical suitability as per occupational health and safety regulations.





### SIGNIFICANT ASPECTS REGARDING WORK IN THE SUPPLY CHAIN AND ACTIONS TAKEN

As regards the **operation** sector, should any irregularity be identified in the documentation (contributions, for example), the termination clauses provided for in each order/contract shall apply.

The activities of **construction** companies are usually carried out, especially in Italy and the EU but also elsewhere, through the extensive

use of sub-contractors and outside suppliers.

There are, therefore, adverse impacts, both actual and potential, deriving from the improper use of a workforce in the direct execution of a job order as well as in the manufacture of materials (later installed on-site) at third-party production units.

These impacts are essentially of three types:

- judiciary (criminal) and administrative (fines and penalties) in

the case of the non-compliant use of labour in on-site;

- disturbance of the on-site environment with the potential to cause unrest and/or riots;
- reputational damage following the discovery of sub-contractors using non-compliant labour on-site (client relations) or of third party suppliers that are exploiting the workforce (negative publicity).

Finally, for **engineering** there are no significant negative impacts.



### SUPPLIER ASSESSMENT BASED ON ENVIRONMENTAL CRITERIA

As regards **operators**, when a supply contract is entered into, a suitable "environmental" clause is included by which the supplier specifically undertakes to comply with all applicable regulations and indemnifies the company.

The contracts, where necessary, stipulate compliance with environmental regulations and the release of all certifications/licences required by the regulations. For suppliers specialised in environmental aspects (e.g. waste disposal), certifications are collected and updated as part of the management of the Supplier Register.

For the **construction** sector, on the other hand, companies included within the scope operate in the context of civil or infrastructure construction work sites. These

are mostly awarded to third-party companies through sub-contracts. When selecting and identifying candidates, individual companies' characteristics are usually evaluated in relation to the work to be carried out and its relevance to environmental issues.

For example, emphasis is given to:

- excavation and earth-moving;
- environmental redevelopment;
- specialist works, such as special foundations (piling, jet grouting, etc.), waterproofing, asphaltting, etc.

Specialist companies are also used for collecting waste with special containers, both at outdoor sites and at the prefabrication plant.

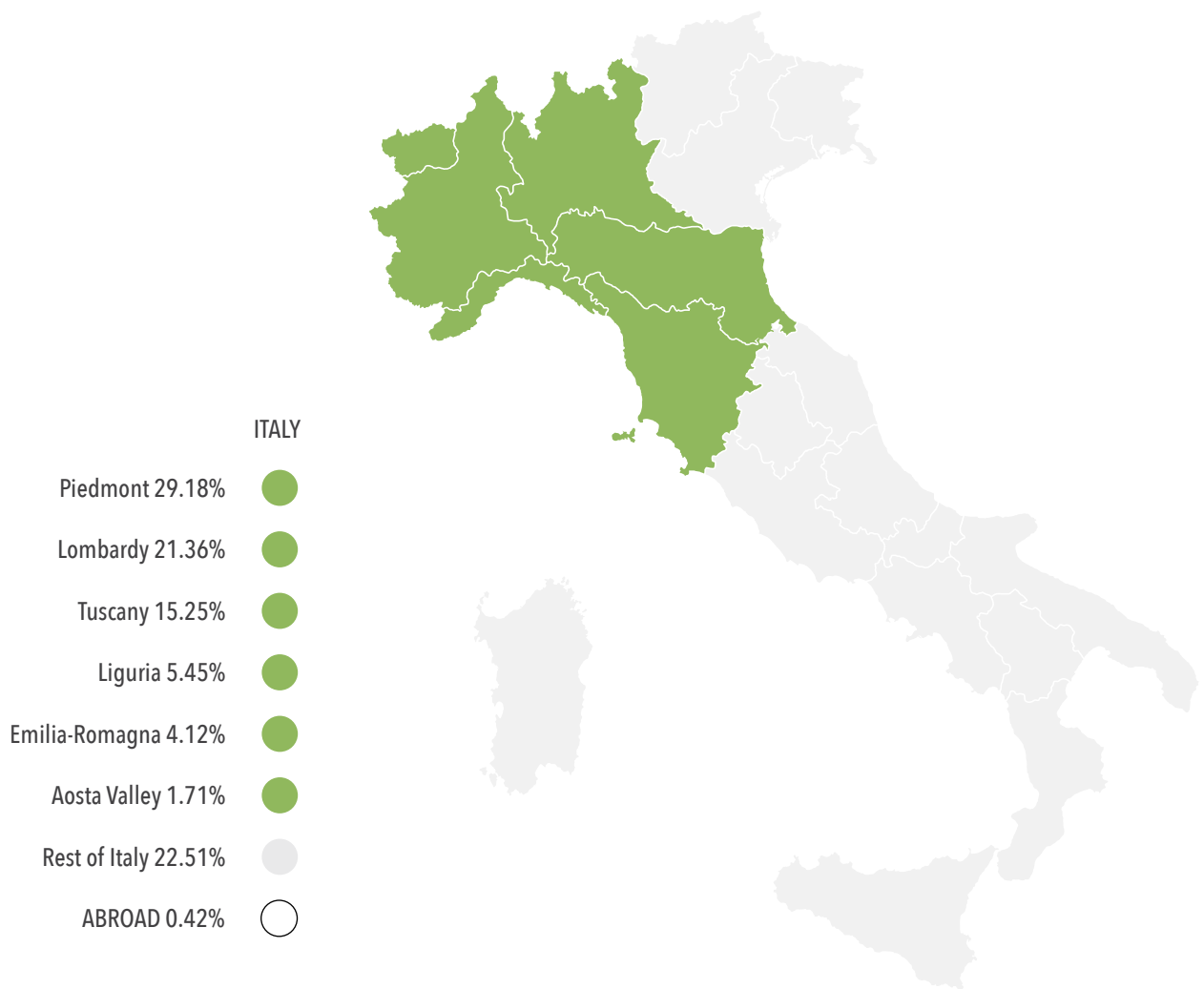
Finally, specialist workers are employed for expert analysis of ground properties and conformity of waste (potential hazards and eligibility for landfill)

The following environmental criteria are used for screening:

- possession of environmental certifications (ISO 14001 or EMAS registrations) and
- Entry on registers (e.g. environmental manager register)

Finally, for the **engineering** sector, during the assignment of a job, the supplier is asked to ensure/declare the adoption of working procedures that respect and protect the environment, including the management, in line with legislation, of waste generated during its operations.

## SUPPLIERS' GEOGRAPHICAL DISTRIBUTION IN 2016



About 78% of purchases were from suppliers head-quartered in the area where the Group conducts most of its business (Northwest Italy).



### MAIN GOODS CATEGORIES PURCHASED IN 2016

Listed below are the main categories of products purchased in 2016, broken down by sector of operations. The data includes purchases made in the year by all companies included in the reporting scope.

OPERATION, CONSTRUCTION AND TECHNOLOGY SECTORS*	%
Road barriers	9%
Bitumen	7%
Concrete	9%
Cement and other binders	2%
Chlorides	2%
Asphalt concrete	22%
Iron and steel	19%
Electrical systems	13%
Cement pre-fabrications	2%
Petroleum products	14%
Paper and stationery	1%

ENGINEERING SECTOR*	%
Raw materials	9%
Engineering consultancy services	37%
Other consultancy services	8%
Other costs	46%



OVER  
**5,000**

SUPPLIERS USED BY THE  
GROUP IN 2016



INDUCED IMPACT

**APPROX. 15,000\*\***

ESTIMATED NUMBER OF  
PEOPLE IN THE REGION  
TO WHOM THE GROUP  
DISTRIBUTES WEALTH

\*Some data on purchases is based on estimates made using the best available methods.

\*\*Data estimated as the ratio between supplier remuneration (see paragraph "Economic value generated and distributed") and average GDP per capita in the regions of Italy where the Group operates (2014 ImpresaLavoro using ISTAT data).



## ENGINEERING

The procurement of engineering services, as per the ISO 9001 Quality Management System, involves specific calls for tenders aimed at selecting the most suitable supplier for the case in question on the basis of several factors. Calls for tenders examine, by way of example but not limited to, the technical skills, professional experience, tools and software made available, resources allocated for the work, and any other factor deemed necessary for the purposes of a full and exhaustive assessment. Generally, apart from exemptions, the suppliers selected to submit a tender, of which there must be no less than 3, are chosen, on the basis of their corporate purpose, from the company's internal Supplier Register that enables the supplier's performance to be monitored, from a technical, ethical and moral perspective. Each supplier, in fact, as part of their entry onto the Reg-

ister, must fill in a questionnaire as confirmation of meeting the above requirements. The criterion for selecting suppliers favours the most financially advantageous tender, aimed at weighing up financial requirements against technical and qualitative ones, avoiding, in that sense, giving preferential treatment to financially "anomalous" tenders. Regarding the ethical aspect, by signing the contract the selected supplier shall undertake to comply with all regulations on: workers' rights, safety regulations, Legislative Decree 231/2001, the law on traceability of financial flows, any legality protocols and any other regulation aimed at ensuring the company only partners with outside parties that have high ethical and moral standards. The company's Code of Ethics can be viewed on the company website and is referred to in all contracts that the company enters into. It should also be noted that, to ensure complete impartiality in

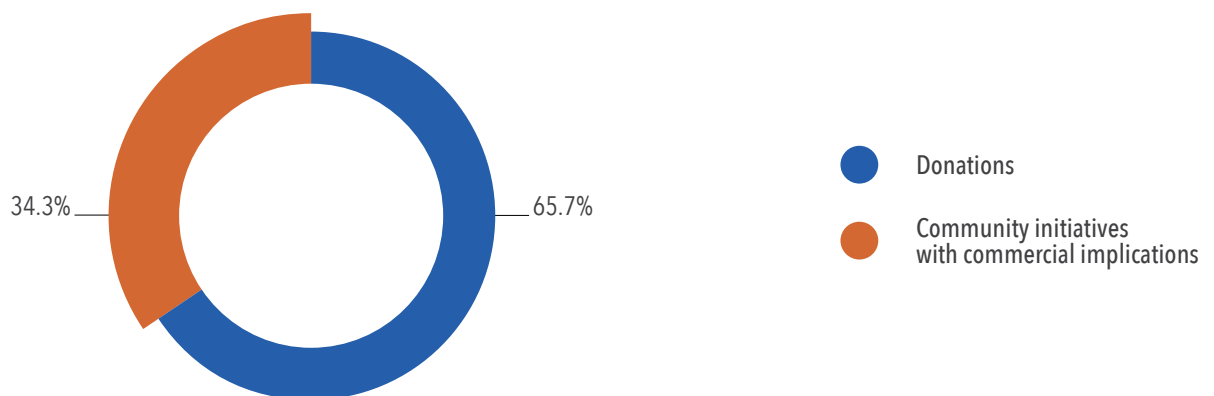
supplier selection, the company applies a clear differentiation of corporate responsibilities aimed at preventing the concentration of decision-making powers in any single individual. The screening carried out for supplier suitability continues with a check on services delivered that must respect the requirements agreed and conform to the quality management system. Specific procedures are in fact envisaged at company level, designed to rectify any discrepancies, including on the basis of their severity. These procedures are also reflected in the contractual prototypes in use, which guarantee the company's protection against supplier criticalities, both in terms of service and morals/ethics.

## COMMUNITY INITIATIVES

The ASTM Group, fully aware that its relations with the local community are an important lever for creating value, involves it in developing initiatives that contribute to the region's economic, social and cultural development.

In this spirit, the Group intends to build a relationship of trust and cooperation with local communities by contributing, directly or indirectly, to supporting and/or funding projects and initiatives having a significant impact on the areas in which it operates.

### TYPE OF INITIATIVE IN 2016



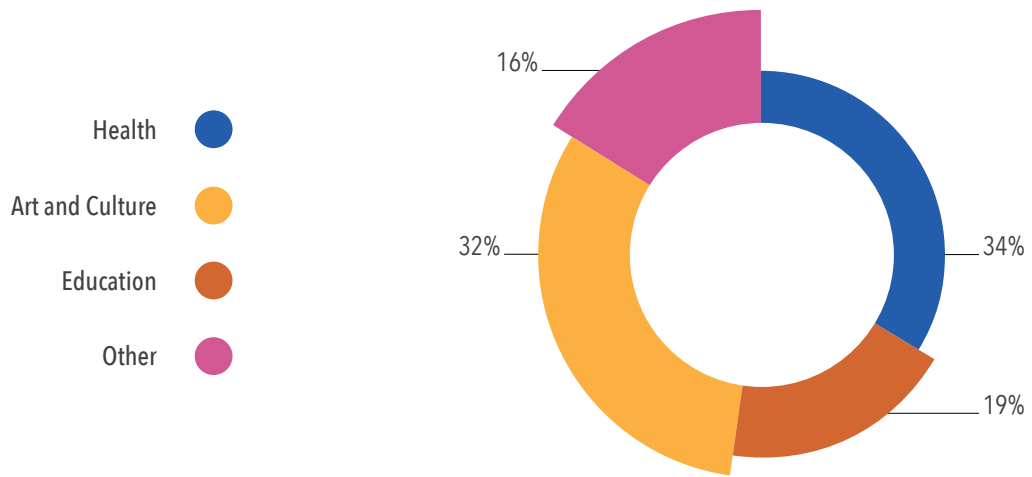
The Group includes the following as community initiatives:

- **Donations:** initiatives offering occasional support to social, environmental and community organisations through contributions (e.g. donations to beneficial causes and non-profit organisations).
- **Community initiatives with commercial implications:** initiatives by the business sector in the community, with a social

element (e.g. events and other activities for the community; initiatives in support of scientific research).

In 2015, Group donations to and investments in the community amounted to over €300,000, while the value for 2016 was €177,558. Key sponsorships for 2015, on the other hand, included €60,000 for the basketball and rugby team (CUS Torino).

### AREA OF DESTINATION IN 2016



## PRESERVING OUR HERITAGE

### INFRASTRUCTURE PROMOTING HISTORICAL HERITAGE: LUNI ARCHAEOLOGICAL PARK

The Group helps to protect and preserve historical and cultural heritage in the regions where it operates by developing archaeological sites uncovered during the upgrading of motorway networks operated by the Group under concession. These sites, thanks to the commitment of the Group's operator and engineering companies, as well as to collaboration from the relevant authorities, are preserved and displayed, sometimes as museums.

For example, the Group is building a new direct link between the SALT motorway (that connects Sestri Levante with Livorno, run by the Lig-

uria-Tuscany motorway company) and the Luni archaeological site in La Spezia province, one of the most important in Italy yet still one of the least known or visited in the country.

This is one of the initiatives the Ministry of Infrastructure and Transport has been promoting since 2002, following the establishment of the Infrastructure and Culture Commission, with the aim of identifying and developing initiatives to connect infrastructure that is key to transport in Italy with the most prestigious places and cultural sites crossed by it.

The archaeological site of the ancient city of Luni, which also includes the National Archaeological Museum, is the main archaeological complex from the classical age of the region of Lig-



uria. The colony was founded by the Romans in 177 BC as a military outpost for the Roman legions during their campaign against the Liguri people.

To improve and facilitate access to the archaeological site where the Roman city once stood (about 200 meters from the quays of the port famous in ancient times for its marble "lunense" that was shipped all over the Mediterranean), SALT has created a project that envisages:

- the restoration of the entire site of the former industrial zone overlooking the motorway, with environmental mitigation measures (noise barriers, etc.)
- the creation of a new lay-by on the motorway in the direction of Livorno

- the creation of a horizontal pedestrian link parallel to the motorway in the direction of Luni
- the building of a new footbridge (Portus Lunae) with a light housed in white marble at its centre to help identify the site and its new direct link to the
- the realisation of a new theme park on the archaeological site close to the motorway featuring posters, physical installations and audiovisual panels using multimedia and audio technology to explain the history of Luni.

The new footbridge will now provide access to the site's *Cardo Maximus* from the motorway and from the Marinella Plain.



The project was inspired by the initiative of local organisations in La Spezia, coordinated in 1999 by the province of La Spezia, under the Val di Magra urban redevelopment project.

The ancient Roman city of Luni (177 BC) was the region's hub and

gave rise to all the region's subsequent developments.

The project's main objectives are: the restoration of the ancient hill-valley-sea path, the creation of areas of interchange between the motorway and the region, the

creation of an educational themed park with multimedia posts, and the architectural redevelopment of the access to/exit from the archaeological site.



## ARCHAEOLOGICAL FINDS ALONG THE TURIN-MILAN MOTORWAY

During the upgrading and modernisation of the SATAP A4 TURIN-MILAN motorway, following preliminary archaeological studies, it was possible to identify and bring to light important archaeological finds.

In 2005, in Settimo Torinese, near Turin, remains of Roman irrigation channels were found along with evidence of human intervention dating from the Roman to the medieval periods.

In 2006 in Volpiano, also near Turin, an interesting stretch of Roman road was brought to light. During ordnance clearance carried out in Carisio (near Vercelli), the remains of a masonry building was uncovered, constructed from brick and small stones and datable to the late medieval period. In 2013, in Cornaredo (near Milan), evidence of human Bronze Age activity was unearthed, while in Rho (also near Milan), Iron Age remains were identified.

In 2014, the remains of an irrigation channel was uncovered in Settimo Torinese, similar to that in use today, built roughly between the 18th and the beginning of the 20th centuries.

Given the historical importance of its discovery and the uniqueness of some of its finds, the excavation of a burial site and Roman necropolis in Bernate Ticino (near Milan) also deserves a mention. The excavation also uncovered tombs with Celtic finds dating from the 3rd to the beginning of the 2nd century BC, an absolute first for the Bernate Ticino area. The tomb finds were fully restored and are on display in a special room at the G. Sutermeister Civic Museum in Legnano (near Milan).

These findings, together with many others, were featured in an ebook (also available on the [www.autostradafacendo.it](http://www.autostradafacendo.it) homepage) published in 2014 for the 2000th anniversary of Augustus' birth and the 28th national road conference. The theme was then developed, including contributions from the relevant offices, leading to the publication of "Q.V.M.S. QVOD VIAE MUNITAE SVNT: Road history and archaeology, 2000 years after the Emperor Augustus." (January 2016), by the ASTM Group.

The international Routes/Roads magazine (published in 160 countries) devoted 2 editions in 2016 to SIAS's work, in the historical feature "Histoire de routes." A third and final edition is expected in 2017.



Bernate Ticino,  
view of the excavation



Tomb 38,  
pottery vase, following restoration





ASTM

Connected to the future!

**IDEAS, PEOPLE AND VALUES**

# Our businesses





The transport system merges almost seamlessly with the motorway exits, leading into and winding their way across populated areas. A line separates the sharp, fast flows of the motorway from the variable traffic of the ordinary

road network, its design varying according to the options available. They are the new gates to the cities: connecting the complex outer edges of settlements to the beating heart of the metropolis.

# Our businesses

## CONCESSIONS

**FOURTH-LARGEST  
MOTORWAY**  
OPERATOR IN THE WORLD

**LEADING MOTORWAY**  
OPERATOR IN NORTHWEST ITALY



**NETWORK OF 3,320 KM**  
IN ITALY AND BRAZIL

**NETWORK OF 1,460 KM IN ITALY**  
**NETWORK OF 1,860 KM IN BRAZIL**

**€1.1 BILLION**  
IN REVENUE IN 2016



**ABOUT 1,300 KM OF**  
CARRIAGEWAY SURFACED WITH  
DRAINAGE/NOISE REDUCING MATERIALS

**-18% WASTE PRODUCED**  
COMPARED TO 2015

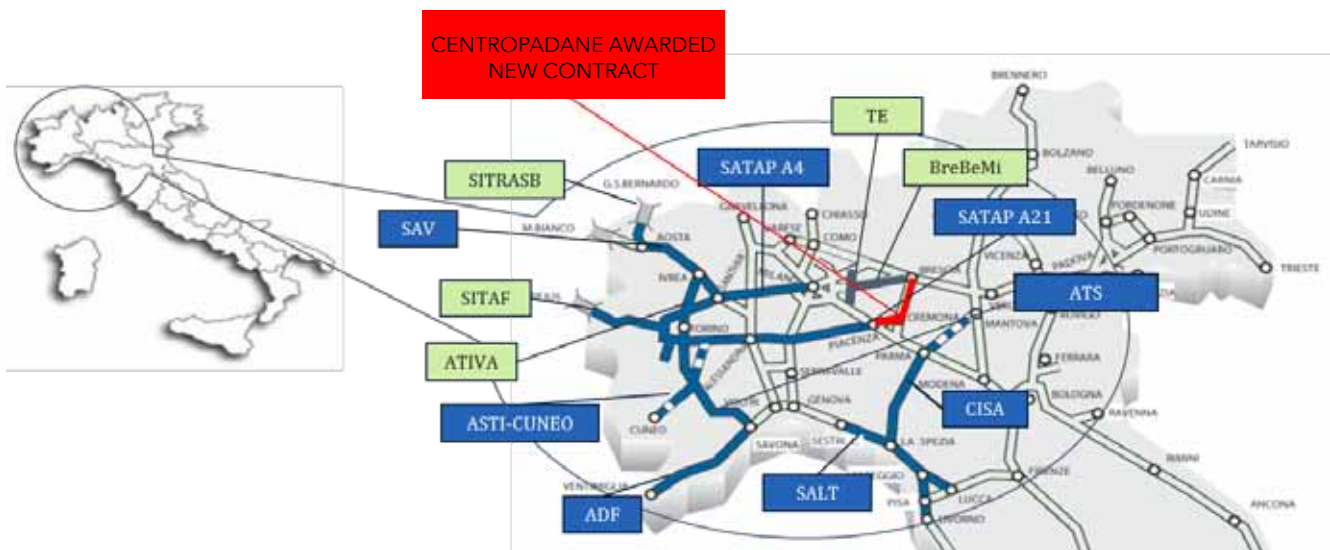


**AMONG THE BIGGEST  
PRIVATE INVESTORS**  
IN THE TRANSPORT INFRASTRUCTURE  
SECTOR IN ITALY

The ASTM Group operates in motorway operation sector through the subsidiary SIAS S.p.A.

SIAS is currently the world's fourth largest operator of toll motorways, managing about 3,320 km in Italy and Brazil.

In Italy, the Group manages approximately 1,460 km of roads in the northwest of the country, an area with one of the highest per capita incomes in Europe, located along Europe's main infrastructure corridors.



SIAS controls 8 motorway operators:

- SATAP A4 Turin-Milan, 130 km long, which connects the capital of Lombardy with that of Piedmont;
- SATAP A 21 Turin-Piacenza, 168 km long, which connects northwest Italy with the A1 motorway;
- Autostrada dei Fiori, 113 km long, which crosses the region of Liguria, from Savona to the French border;
- Autostrada Torino-Savona, 131 km long, which connects the capital of Piedmont with western Liguria near the city of Savona;

- SALT, which manages 155 km of roads, comprising three sections: Livorno to Sestri Levante (A12), Viareggio to Lucca (A11), and Fornola to La Spezia (A15);
- Autocamionale della Cisa, which manages the 101 km-section between La Spezia and Parma;
- SAV (Società Autostrade Valdostane), which manages 60 km of motorways: between Quincinetto and west Aosta, and the A5-SS27 link to the Great St. Bernard Pass.
- Autostrada Asti-Cuneo, about 78 km long (of which 23 km are under construction).

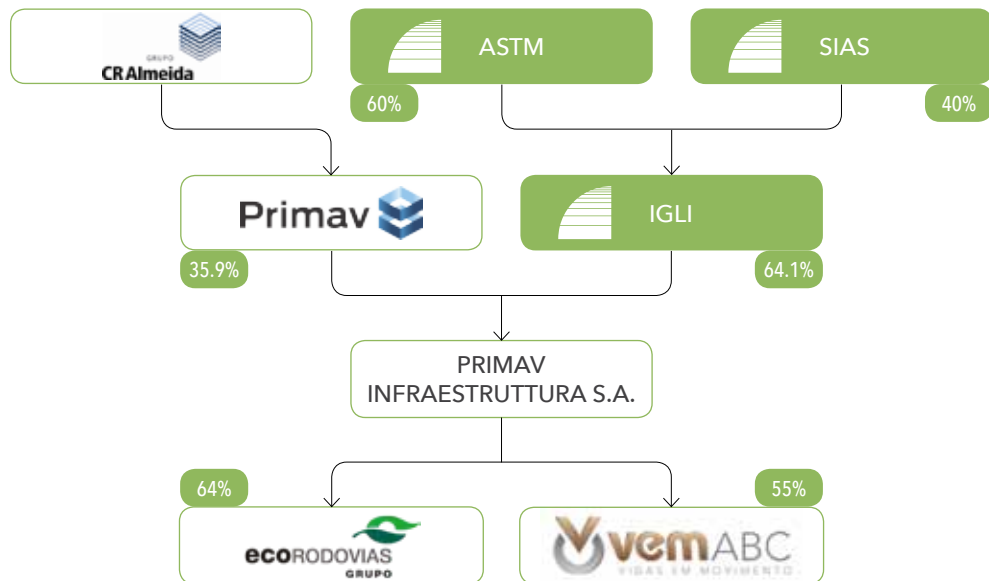
In Italy, SIAS also jointly controls the following operators:

- ATIVA - Turin ring road, Turin-Quincinetto, Ivrea-Santhià and Turin-Pinerolo (156 km);
  - TE - Milan outer ring road (32 km);
  - BreBeMi - Brescia-Bergamo-Milan (62 km)
- Finally, it also has a joint holding in the following operators:
- SITAF - Frejus Tunnel Turin-Bardonecchia (94 km);
  - SITRASB - the Great St. Bernard tunnel (13 km);
  - A69 Carlisle-Newcastle (UK) (84 km)

In **Brazil**, the Group, through its joint control of Ecorodovias, listed on the Sao Paulo Stock Exchange and one of Brazil's major infrastructure operators, manages a network of approximately 1,860 km of motorway. This lies between Sao Paulo, Rio de Janeiro and Curitiba, in a corridor in the south-south-east of the country in one of its richest, most industrialised, and most densely populated areas. Ecorodovias closed the 2016 financial year with revenue of 2,377.6 million reais.

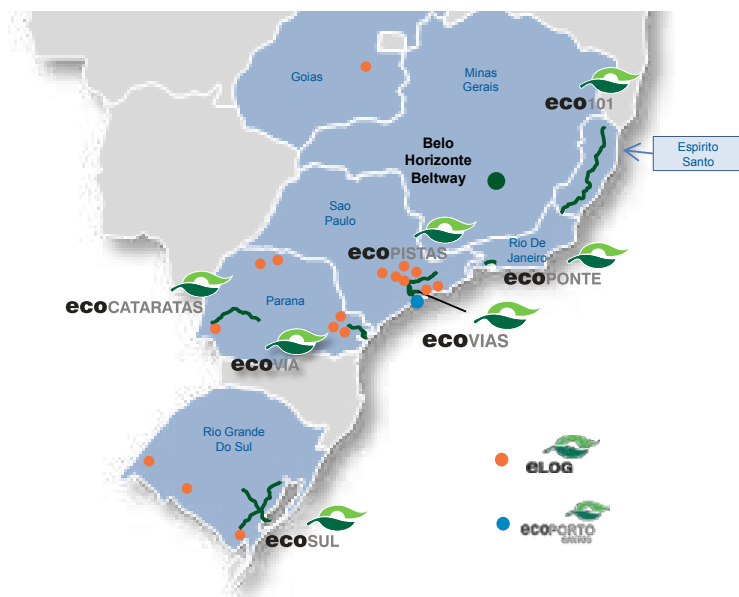


On 13 May 2015, the Ministry of Infrastructure and Transport announced its decision to award the Group the concession for the **"A21 Piacenza-Cremona-Brescia motorway section"**, 89 km long. The concession will only become effective after verifying compliance with the applicable regulations.



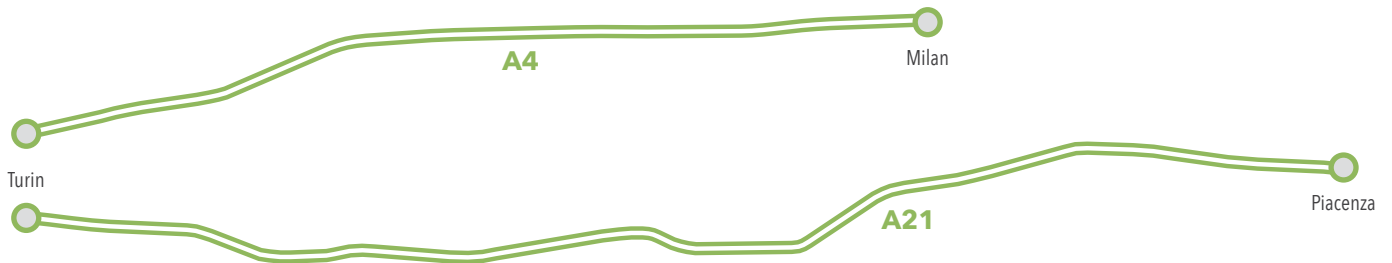
Ecorodovias controls the following operators:

- Ecovias dos Imigrantes, which connects Sao Paulo to Porto di Santos (177 km)
- Ecopistas, which connects San Paolo to Vale do Rio Paraiba (135 km)
- Ecovia Comiho do Mar, which connects Curitiba to the port of Parana-gua (137 km)
- Ecocataratas, which connects Parana to the so-called Triple Frontier between Brazil, Argentina and Paraguay (387 km)
- Ecosul, which connects Pelotas, Porto Alegre and Porto del Rio Grande (457 km)
- ECO101, which connects Macuri and Rio de Janeiro (476 km)
- Ecoponte, which connects Rio de Janeiro and Niteroi (23 km)
- Belo Horizonte Beltway (66 km under construction)





## INFRASTRUCTURE IN ITALY



### SATAP S.p.A.

The motorway company SATAP manages the following motorway sections under a concession arrangement:

- A4 from Turin to Milan;
- A21 from Turin to Piacenza.

**298 KM managed roads**

**3 tunnels**

**150 viaducts**

**421 video cameras**

**17 webcams**

**285 emergency telephones**

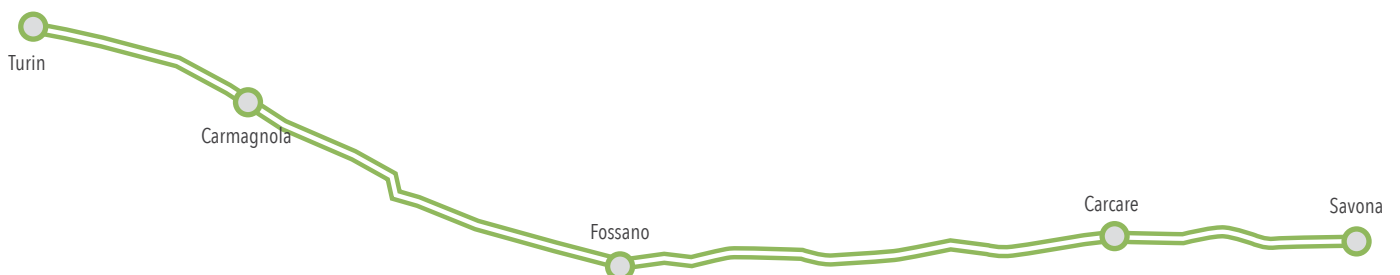
**725 emergency stopping areas**

**19 service areas**

**98 variable message signs**

**1 outdoor picnic area**

**24 car parks on route and at junctions**



### Autostrada Torino Savona - ATS S.p.A.

The motorway company ATS Torino - Savona (A6) holds the concession to manage a section of motorway that connects Turin and Ponente Ligure.

**131 KM managed roads**

**49 tunnels**

**208 viaducts**

**190 video cameras**

**12 webcams**

**136 emergency telephones**

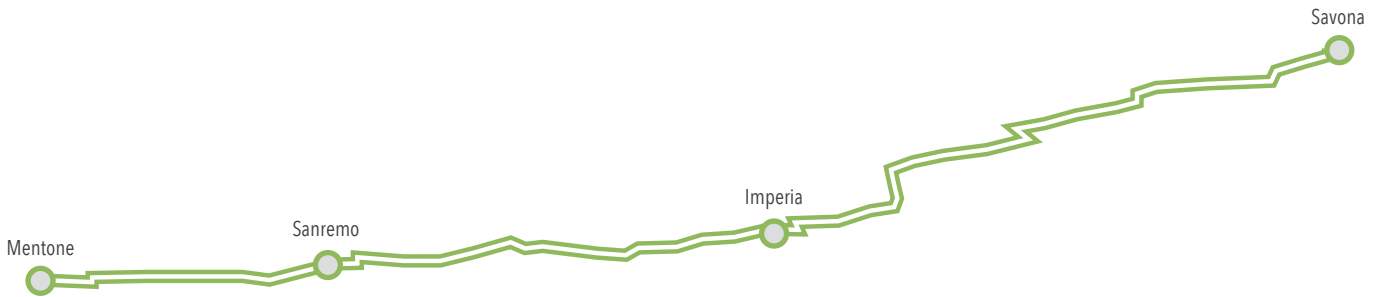
**203 emergency stopping areas**

**12 service areas**

**151 variable message signs**

**5 car parks on route and at junctions**

**2 emergency helipads**



### Autostrada dei Fiori S.p.A.

Autostrada dei Fiori S.p.A. holds the concession to manage the motorway section between Savona and the French border, passing Ventimiglia (A10), as well as minor connecting sections with the ordinary road network.

**113 KM managed roads**

**67 tunnels**

**90 viaducts**

**259 video cameras**

**12 webcams**

**338 emergency telephones**

**102 emergency stopping areas**

**11 service areas**

**67 variable message signs**

**3 outdoor picnic areas**

**5 car parks on route and 5 at junctions**

**3 emergency helipads**



### Società Autostrada Ligure Toscana - SALT p.A.

The motorway company SALT holds the concession to manage the following motorway sections:

- A12 from Livorno to Sestri Levante;
- A11 from Viareggio to Lucca;
- A15 from Fornola to La Spezia.

**155 KM managed roads**

**29 tunnels**

**160 viaducts**

**240 video cameras**

**238 emergency telephones**

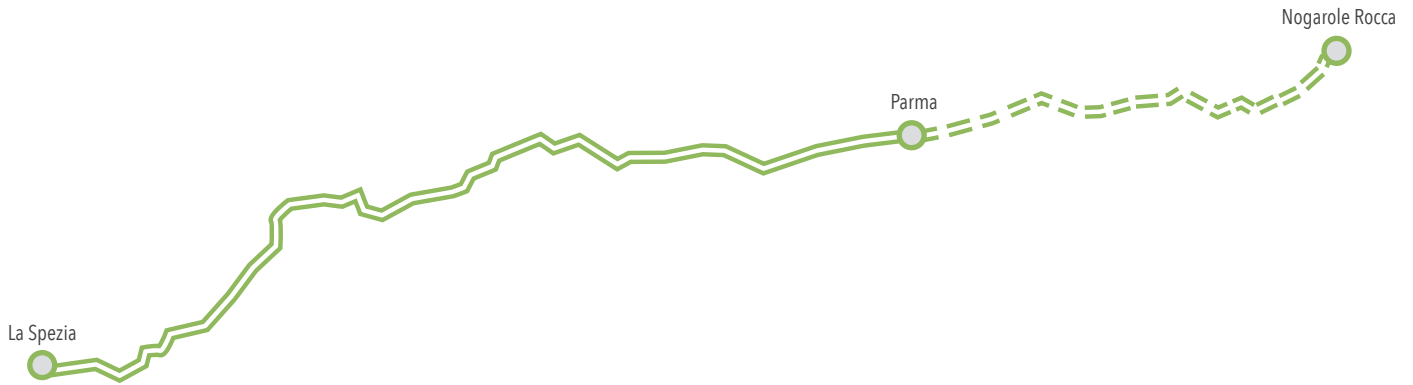
**153 emergency stopping areas**

**10 service areas**

**66 variable message signs**

**16 car parks on route and at junctions**

**3 emergency helipads**

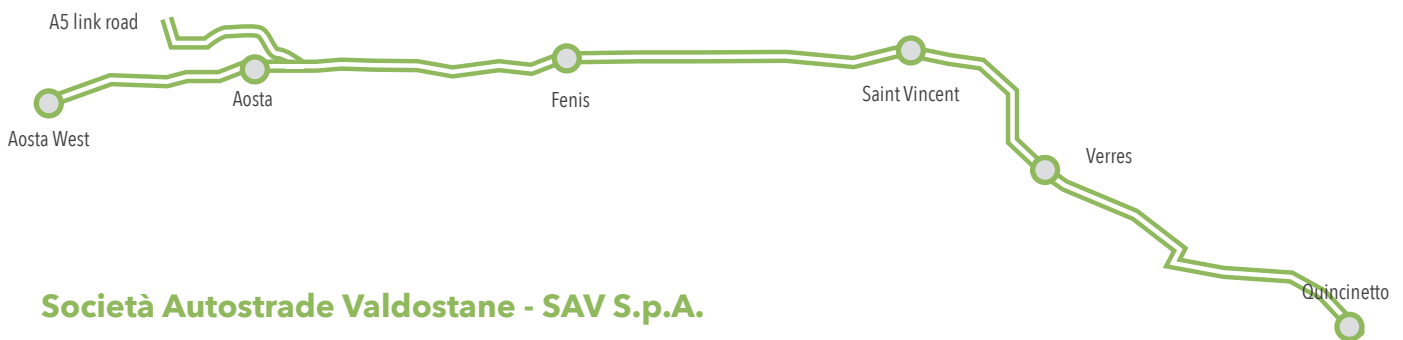


### Autocamionale della Cisa - CISA S.p.A.

The motorway company Autocamionale della Cisa holds the concession to manage the motorway section between La Spezia and Parma (A15). In addition, the company has begun work on the first lot (12 km) of the link road between Parma and Nogarole Rocca (totalling 81 km).

**101 KM** of managed roads plus **12** under construction on the Parma - Nogarole Rocca section  
**18** tunnels  
**99** viaducts  
**99** video cameras  
**132** emergency telephones

**60** emergency stopping areas  
**7** service areas  
**29** variable message signs  
**3** outdoor picnic areas  
**8** car parks on route and at junctions  
**1** emergency helipad



### Società Autostrade Valdostane - SAV S.p.A.

The motorway company SAV holds the concession to manage the Quincinetto - Aosta West motorway section and the A5-SS27 link road of the Great St. Bernard road (A5).

**60 km** managed roads  
**6** tunnels  
**51** viaducts  
**56** video cameras  
**7** webcams  
**132** emergency telephones

**42** emergency stopping areas  
**4** service areas  
**15** variable message signs  
**10** rest stops, of which **6** with picnic facilities  
**10** car parks on route



### Autostrada Asti-Cuneo S.p.A.

Autostrada Asti Cuneo S.p.A. holds the concession to manage the motorway section from Asti to Cuneo (A33), divided into two stages measuring a total of 78 km, interconnected by a 20 km section of the A6 Turin-Savona motorway, from Marene to Massimini.

**ABOUT 78 KM** managed roads

**3** tunnels

**9** viaducts

**102** video cameras

**77** emergency telephones

**129** emergency stopping areas

**51** variable message signs

**4** car parks on route and at junctions

**6** emergency helipads

### MOTORWAY TOLLS

The Group's main source of income is from motorway tolls, which users pay in order to access the motorway. The toll paid by users is equal to the kilometres travelled on the Group's motorway network multiplied by the tariff, which is specific to each concession.

The tariff is regulated on the basis of the agreement that the Group company that holds the concession has signed with the granting body, the Ministry of Infrastructure and Transport ("MIT").

The tariff policy of the Group's concession holders is therefore subject to numerous constraints and agreements, ruling out any discretion in their application by the

companies and ensuring transparency and uniformity of application to customers. Each agreement has an annexed Economic-Financial Plan that forms the basis for determining the tariff increments of the individual concession holders. The calculation is based on what are called permitted costs and expected revenues under motorway sector regulation as per CIPE Resolutions 39/2007 and 27/2013.

The overall final tariff, that every user pays to the concession holders, includes three components: the amount due to the concession holder, the surcharge to be paid to the State, and VAT.

The latter two components represent the amount of the tariff that goes directly towards the remuneration of government.

The tariff component due to the concession holder remunerates the capital used for investments in innovation, modernising and improving the safety of the managed network, as agreed under the concession arrangement.

#### **FINAL OVERALL TARIFF PER KM (OVERALL TARIFF DUE TO CONCESSION HOLDER + SURCHARGE) + VAT**

- Depends on class of vehicle and nature of the motorway section (plain or mountain).
- Determined based on a mechanism set out in the concession agreement (described in next paragraph).
- The surcharges are equal to €0.006/km for vehicle classes A and B and 18 per kilometre for classes 3, 4 and 5 (Law 102/2009 and 122/2010).

#### **OUR COMMITMENT TO ROAD SAFETY**

In any transport system, traffic safety is a fundamental factor for sustainability, and traditionally identifies and defines the role and activities of a motorway operator. For Group operators, safety is a key factor and a priority commitment in motorway management. Central to this type of activity is the availability of operational vehicles and, even more importantly, highly qualified personnel who have been trained in best practices at national and European level. In managing safety policies, prevention plays a central role. The operator companies' technical departments are assisted by engineering companies, construction companies and technology companies

in developing multiple actions focused on prevention and infrastructure improvements: works inspections, planning, maintenance, improvements to structures and equipment, technological development and upgrading of the network. Well-built and efficient roads are a prerequisite for ensuring traffic safety, although the latter can be compromised by human factors (distraction, drowsiness, carelessness, driving under the influence of intoxicating substances, etc.) and environmental factors (adverse weather conditions).

To this end, in addition to the careful design, construction and management of its works, the Group created Autostradafacendo, an information and road safety campaign that puts its faith in people, leveraging the fact that better-in-

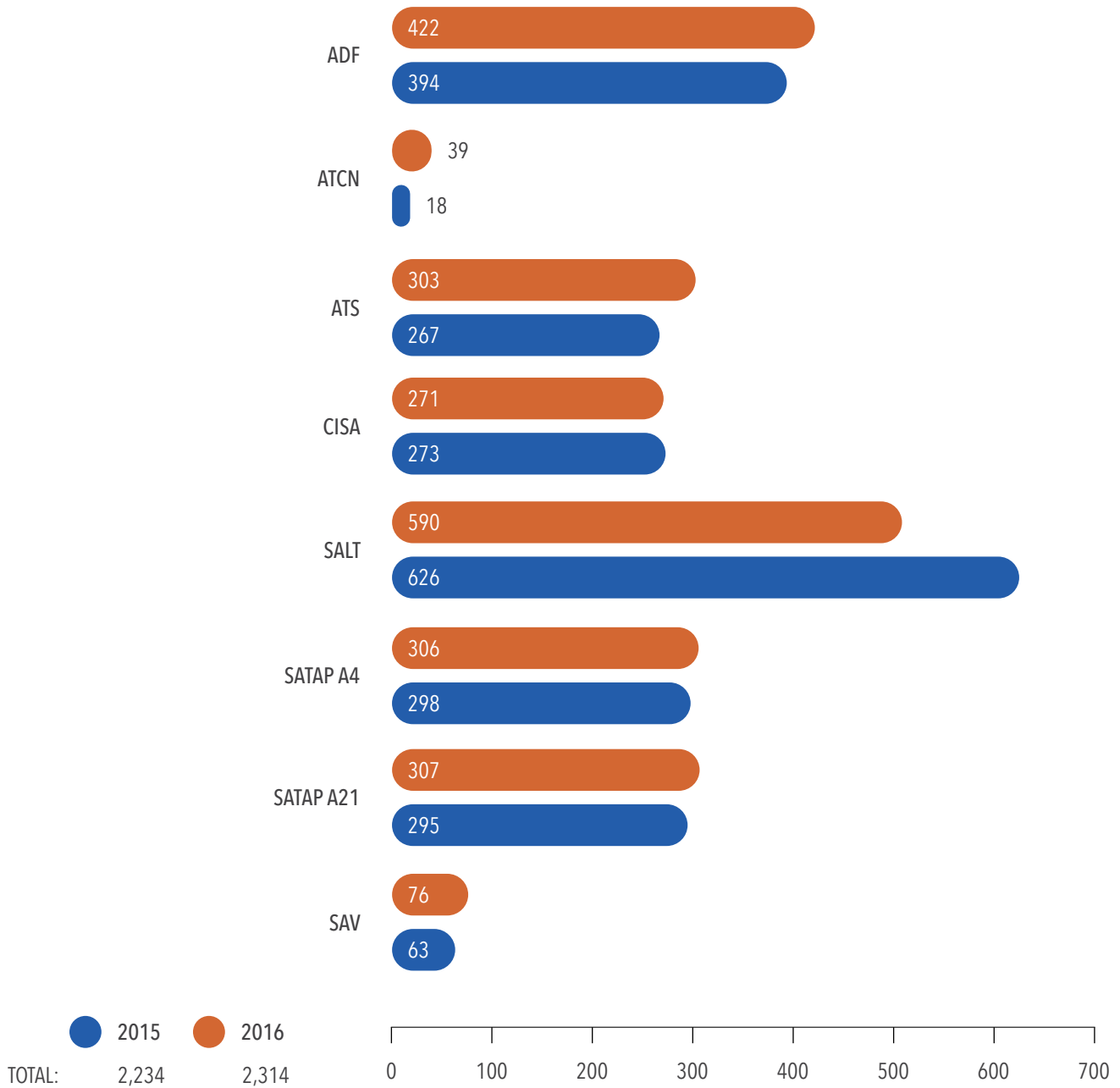


-39.53%  
FATAL ACCIDENTS  
COMPARED TO 2006



CISA, SAV,  
ASTI-CUNEO  
NO FATAL ACCIDENTS  
IN 2016

NUMBER OF MOTORWAY ACCIDENTS



formed drivers adopt better driving habits, fostering their own and others' safety. Forty organisations participate in the campaign, which has hundreds of initiatives and more than 600 articles on over 3,000 pages of content on the website.

In recent years, traffic safety on Group infrastructure has greatly improved. This is one of the main success stories that the Group has managed to develop and consolidate on, following road, equipment and operational improvements, protecting human life and with a view to a more efficient and sustainable transport service.

On the Group's road network, the target of halving road fatalities was reached about two years ahead of the deadline set for member states by the European Union.

In 2016, on roads operated by Group subsidiaries (covering over 900 km), there were 2,314 accidents, of which 27 were fatal, with 1,352 injuries and 32 deaths.



## A SUCCESS STORY

The European Union promotes a progressive improvement in safety by setting road fatality reduction targets. The first period to be regulated was 2001-2010, for which the target was a halving of fatalities. This was the first success for the part of the network operated by the Group: the number of road fatalities was more than halved, and was in fact a third of that in 2001: a net 67.5% reduction for the period, compared to the 43%

average over the entire national road network, and to the European average - stable at 44%.

In the last few years, the target of zero road fatalities for an entire year has been achieved, on major routes, beginning in 2012 with the Autostrada dei Fiori and SATAP (Turin-Milan section). In 2016, a fantastic zero deaths was achieved on the over 170 km of the Auto-camionale della Cisa and SAV.

The different results for the Group's networks and other networks demonstrates that preven-

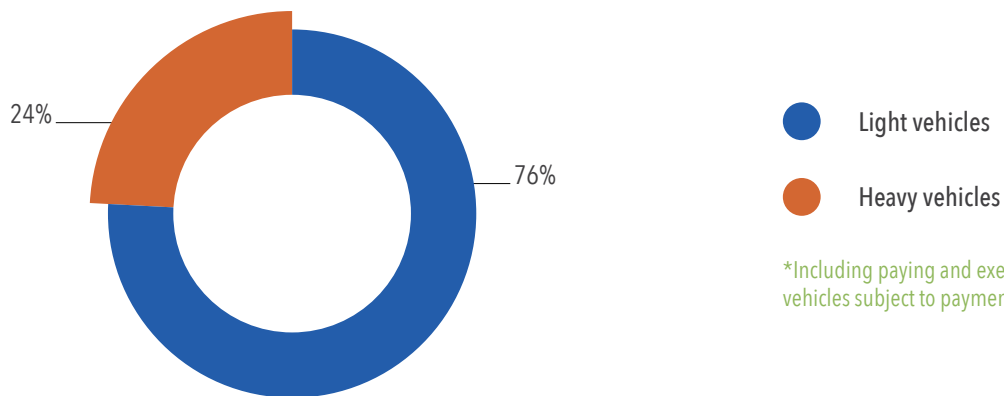
tive actions to improve the safety of motorway infrastructure have successfully assisted and maximised the development and improvements that were undoubtedly also recorded for the vehicle fleet and for driver behaviour.

Without doubt, these results represent a success story and a stimulus for the Group, with an opportunity to contribute to further improvements in the development of civil society and the safeguarding of human life.

## TRAFFIC DATA

Below are the data and graphs for the traffic served every day by the motorway operators within the scope of the Group, data that well reflects the service delivered for the benefit of the public.

### PERCENTAGE OF THE DISTANCES COVERED IN VEHICLE-KM IN 2016\*



\*Including paying and exempt vehicles, and vehicles subject to payment.



### A PAN-EUROPEAN PARTNERSHIP FOR IMPLEMENTING NEW TECHNOLOGIES

The EU ITS Platform (EU EIP) for road technologies is the place where national ministries, national road authorities, road operators and partners from the private and public sectors of almost all EU member states and neighbouring countries cooperate. It provides a place where operators cooperate in order to foster, accelerate, harmonise and optimise current

and future developments in implementing road technologies on the European-wide road network. The EU ITS (Intelligent Transport Systems) was established and is co-financed by the European Commission (DG MOVE). It is managed by the EU through the Innovation and Networks Executive Agency (INEA), with overall coordination from the Italian Ministry of Infrastructure and Transport. It brings together most European stakeholders with the aim of cooperating in an open forum to provide a valuable

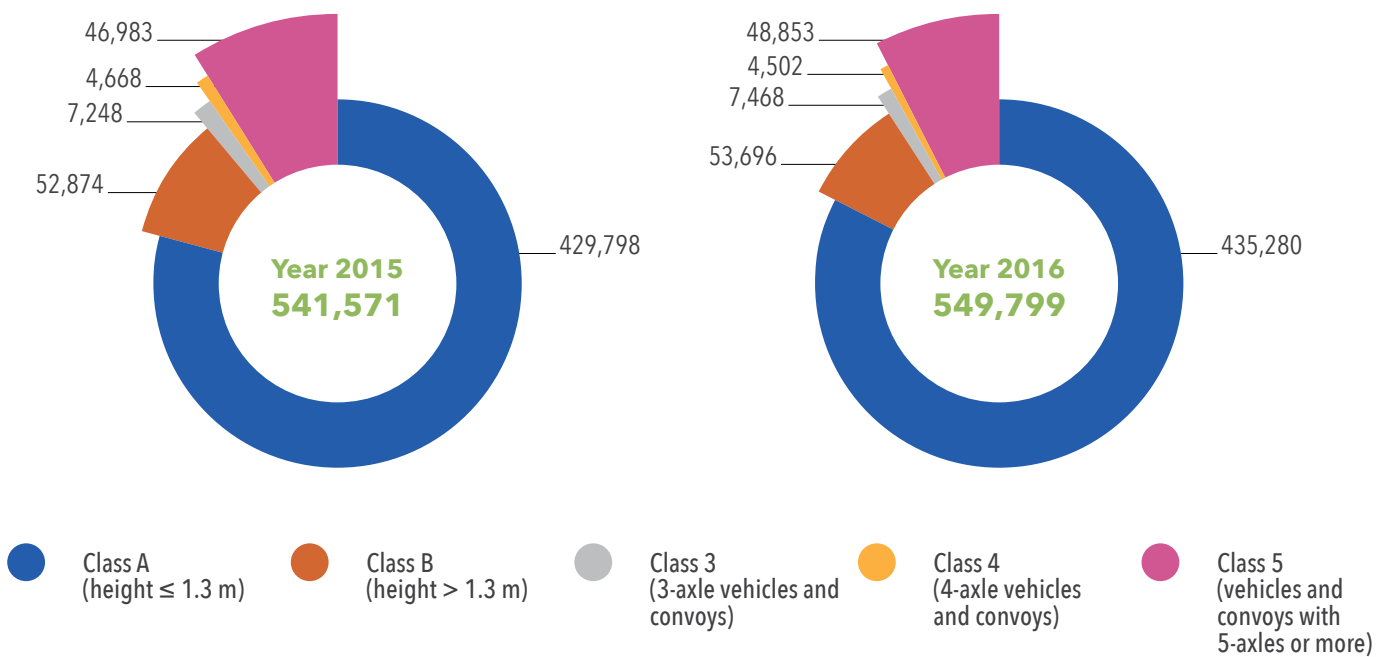
contribution to future strategy as well as recommendations for new European policies aimed at better development and wider distribution of technological services along Europe's road corridors.

Having won a specific European call for tenders, the Group will manage the initiative until 2020.





## AVERAGE ACTUAL VEHICLES PER DAY, BY VEHICLE TYPE\*



\*Including paying and exempt vehicles, and vehicles subject to payment.



### GROUP EXPERTS AT THE HEAD OF THE GLOBAL COMMITTEE FOR IMPROVING ROAD SAFETY

Under the World Road Association (PIARC), international collaboration on "National policies and programmes for road safety" began on 1 March 2016. For the current four-year period, the Committee Chair is an expert from the Group. The technical committee that oversees this topic for the World Road Association, undoubtedly one of

the association's most prestigious bodies, has, in the current four-year cycle, seen 76 new delegate members from the road operators and administrations of about fifty countries across the five continents.

On 15 April 2016, the UN General Assembly adopted resolution A/70/L.44 that aims to "improve global road safety." The resolution reaffirms the importance of adopting and implementing the Global Goals for Sustainable Develop-

ment in the context of road safety, in line with the UN 2030 Agenda for Sustainable Development.

A Steering Committee was established to help enable the consistent development of the Road Safety Manual, for the benefit of global administrations. The Chair of the Steering Committee is an expert from the Gavio Group, in his role as Chair of the international committee.

## THE "AUTOSTRADAFACENDO" PROJECT

Road safety culture began and was cultivated within the Group, and has contributed to the growth of the Group itself. In this spirit, the Group created Autostradafacendo, an information and road safety campaign that puts its faith in people, leveraging the fact that better-informed drivers adopt better driving habits, fostering their own and others' safety. Hundreds of initiatives were realised and recognition received by the campaign, helping to spread a culture of safety. The campaign, that has seen the support of 40 public

and private organisations, has received several sponsorships and been the subject of a protocol with the Ministry of Internal Affairs (Traffic Police service) that is disseminating the results of our work nationally. Autostradafacendo was mentioned both in the UN mid-term report on a Decade of Action for Road Safety (2011-2020) and in the summary document that the UN took to the summit in Brasilia. The campaign website contains over 3,000 pages, including over 600 specially created articles and news items.

<sup>1</sup>For more details, go to: [www.autostradafacendo.it](http://www.autostradafacendo.it)



The campaign is intended to shed light on good and bad driving behaviour, seeking to identify and stigmatise such behaviour, often mistakenly considered safe or acceptable (for example: not wearing a seat belt in the back seat).

The basic idea was, on the one hand, to deliver quick, immediate messages, not intended to be educational, and, on the other, to disseminate such messages via modern means.

To achieve the first objective, cartoons were used to deliver mes-

sages in an entertaining way; for the second, the messages were disseminated via the web.<sup>1</sup>

A series of 14 different characters were created, and then featured in cartoons on driving behaviour and in various campaign products. Each has its own character and attitude behind the wheel, encapsulated in its name.

Group operators also printed campaign messages on the back of their toll tickets. The initiative launched by the Group envisages about 25 million tickets will be circulated right across Italy.



On [autostradafacendo.it](http://autostradafacendo.it), the website for the road safety campaign "Start Driving Your Life", Group operators aim to interact with their stakeholders, and in particular with their users, to describe their work and deliver messages on driving behaviour aimed at promoting road safety.

Below is a small selection of some of the many initiatives and awards received in 2015-2016, by the operators or by the Group as a whole, which were important for the activities of the Group itself in the context of the road safety project.

## MANAGING EMERGENCIES

The Group undertakes to deal with all types of hazard and emergency as efficiently as possible, to ensure good road conditions on its motorways in any situation and any type of event.

The main emergencies that Group operators face are chiefly caused by snow, flooding, fire, landslides and landslips.

In 2016, 48 snow events were dealt with (totalling about 500 hours), using 780 vehicles and about 14,491 tonnes of fluxing agents (salts and chlorides).



**CHILDREN  
AND  
TEENAGERS**



**ADULTS**



**EVERYONE**

**40,000**  
ROAD SAFETY GAMES

**115,000**  
COPIES OF PAMPHLETS  
FOR CHILDREN  
DISTRIBUTED IN SCHOOLS  
ACROSS ITALY

**55,000,000**  
SAFETY MESSAGES AT  
MOTORWAY TOLL BOOTHS

**2,500,000**  
PAGES PRINTED THANKS  
TO PARTNERSHIPS WITH  
THE NATIONAL AND  
INDUSTRY PRESS

**2,500,000**  
WEB PAGES VISITED

**5,000**  
SUBSCRIBED TO THE  
MONTHLY NEWSLETTER

During the year, there were also 21 flood events, dealt with using 59 vehicles, and 2 landslides/landslips on the A12 and A5 sections.

In addition 21 fires were dealt with using 54 vehicles.

All operators have an operations centre that can be contacted by users in the event of an emergency, as well as 1,338 emergency telephones.



#### THE SORRELEY-MEYSATTAZ TRAINING TUNNEL

In the 1990s, a tunnel was built in the town of Saint-Christophe (Aosta Valley), the "Window of Sorreley-Meysattaz", to allow site vehicle access for the construction of the motorway link between the SAV motorway and the SS27.

Once its initial function had concluded, the "Window of Sorreley-Meysattaz" was kept viable, as per an agreement between SAV S.p.A. and the Autonomous Region of the Aosta Valley, to allow access to emergency vehicles and to provide the Aosta Valley fire brigade with a place for in-tunnel training exercises.



#### BLUE BUS

The State Police's Blue Bus, up and running thanks to a collaboration between the Group and the Ministry of the Interior, has become a multimedia travelling classroom. Here, the traffic police are the children's "safety instructors," spreading the safety message of the Autostradafacendo campaign throughout the operators' areas of jurisdiction. Inside, positioned along its 12-metre interior, are five multimedia stations where children, teenagers and adults can play games, take tests, and learn all about road safety, including: travelling by bike, alcohol abuse, and understanding road signs. The Blue Bus has been given to the Genoa Police force for their use, complete with a new livery that recalls their partnership with the Group.





**CIRCA 1,300 KM**  
**CARRIAGEWAY SURFACED WITH**  
**DRAINAGE/NOISE REDUCING**  
**MATERIALS**

## EMERGENCIES ON GROUP ROADS

	2016
TYPE OF EVENT	NO. EVENTS
Snow events	48
Flooding	21
Landslides/landslips	2
Fire	21

## QUALITY AND CUSTOMER SATISFACTION

The Group's quality management is aimed at integrating its various skills in the design, construction and management of infrastructure networks.

Quality management is based on a careful definition of the goals of the Group and the individual group companies. These are then translated into strategic and operational guidelines developed through monitoring plans and indicators that each company periodically monitors.

The goal of customer satisfaction – and in particular the satisfaction of motorway users – is coupled with goals on innovation, technological development, solid and lasting relationships with stakeholders, de-

velopment of the induced impact of infrastructure-related businesses, and focusing on the selection of suppliers and business partners both in Italy and abroad.

Each company has its own quality management system that is consistent with a shared value chain and Group-level regulatory, management and technical standards, while continuing to reflect the different business areas in which individual companies operate.

Protecting and enhancing these differences is another added value of the Group, as is enhancing the skills of the human resources who work in the various companies, and ensuring safety and wellbeing in the workplace.

Particular attention is paid to the integration of the quality manage-



ment system with other management systems such as the management system on safety, environment and the organisation, management and control model pursuant to Legislative Decree 231/01.

**Customer satisfaction in the motorway concessions sector**

In line with its quality policy, the Group is committed to monitoring the quality perceived by users of its motorway infrastructure.

To this end, the Group's motorway operators perform periodic customer satisfaction surveys. The results are analysed and used internally to identify strengths and weaknesses, plan improvements and verify whether these improvements have been effective.

The survey process generally involves preparing questionnaires on the service areas on the managed section of motorway. These are available to complete online, on the website of the motorway operator or its representatives,

The Group uses this information to better understand the changes in the needs and expectations of users and therefore make improvements.

**THE GROUP'S ASPIRATION IS TO BECOME THE LEADER IN THE MANAGEMENT OF MOTORWAY CONCESSIONS IN ITALY AND ABROAD**



**VISION**

**To be one of the world's leading operators in terms of excellence in motorway management.**



**MISSION**

**To offer our global customers a distinctive transport experience featuring safe and comfortable driving, while at the same time ensuring a high level of information and efficient and effective management of infrastructure and emergencies.**

# A testimony



“The motorway system and transport safety in general are a priority for the State Police that, with the Special Traffic Police, has always sought advanced solutions in terms of technology, procedures and operational models, to ensure more effective prevention and control services. It is an example of professionalism that is being continually updated to deliver suitable solutions to challenges and to improve road safety standards in the country.

In these continually evolving situations, it is important to cooperate with the motorway operators that contribute to the country's economic and social development, with important implications for road safety policies developed in the regions where they operate.

The EU target of halving road fatalities again by 2020 can and must be reached, in part through the continuous and productive collaboration with public and private partners. This reflects an increasingly strategic synergy, where the one common denominator is the delivery of suitable solutions to the continuing challenges that we are called to face.

The joint commitment of the State Police and the ASTM-SIAS motorway group to prevention measures and road safety campaigns is by now well established, particularly those addressing the young: In this spirit, the partnership gave rise to the Autostradafacendo initiative, disseminating principles of road safety and lawfulness using brochures and information leaflets designed for young people, also available on the dedicated website.

Significant results have been achieved by the Icarus Project, the road safety campaign that, over the years, has reached schools pupils of all levels and grades, now in its 17th year.

The project was realised together with the Department of Psychology of The Sapienza University of Rome, the Ministry of Infrastructure and Transport, the Ministry of Education, University and Research, MOIGE (movement of Italian parents), the ANIA Foundation for road safety, the Italian Cycling Federation, the Società Autostrada del Brennero S.p.A., and the SIAS motorway group. It is aimed at helping young people to understand the importance of respecting the rules, at promoting a culture of lawfulness and at discouraging young people from dangerous behaviour that is the main cause of road accidents.

The project's 17th year, currently underway, is devoted to I and II level secondary school students across all provinces of Italy.

We will talk to the students about behaviour that is as widespread as it is dangerous: distraction while driving and so-called multitasking.

And we will do all this because road safety is where our interests converge, and because the young are the drivers of tomorrow and the best advocates for road safety in the adult world.”

***Roberto Antonio Sgalla***

Director General of the Italian State Police,  
Railway Police, communications and State Police special departments





## ECORODOVIAS

On 18 December 2015, ASTM S.p.A. and SIAS S.p.A. finalised and signed an agreement under which they came to hold 41% of Ecorodovias Infraestrutura and Logística S.A. (Ecorodovias), a company active in the urban mobility sector, operating in around 1,860 km of motorway network in Brazil.

Having acquired joint control of Ecorodovias, the Group is now the world's fourth largest operator of toll motorways, with a network of about 3,320 km.

With more than 20 years of history, the Ecorodovias Group is one of the largest and most important motorway operators in Brazil. It has over 5,500 employees, 28,000 active suppliers and 7 motorways in 6 Brazilian states. Ecorodovias is also listed on the São Paulo, which ended 2016 with a pro forma revenue of 2,377.6 million reais and pro forma EBITDA of 1,502.2 million reais.



### ECORODOVIAS - PROMOTING ETHICS AND INTEGRITY

In November 2015 Ecorodovias launched its Ethics and Integrity Portal, available to all employees, with content on management commitments, the Code of Conduct, Ethics Committee, communications and information, and an FAQ.

In 2016 the portal is due to be replicated for the public on the website of Ecorodovias and other Ecorodovias Group companies.





**100%**  
OF EMPLOYEES INVOLVED IN PERFORMANCE  
ASSESSMENT PROGRAMME\*



**81,986**  
TRAINING HOURS, MORE THAN  
1.5 MILLION REAIS INVESTED \*



**12.3 MILLION REAIS**  
INVESTED IN ENVIRONMENTAL PROJECTS AND  
INITIATIVES\*



**2,042 MILLION KWH**  
REDUCTION IN ENERGY CONSUMPTION IN 2015 \*



**7,923 MILLION REAIS**  
INVESTED IN COMMUNITY PROJECTS\*



**-38.46%**  
ACCIDENT-RELATED DEATHS  
ON THE ECOVIA CAMINHO DO MAR\*

\* Source: Ecorodovias Group Sustainability  
Report 2015



"To build is to collaborate with earth, to put a human mark upon a landscape, modifying it forever thereby; the process also contributes to that slow change which makes up the history of cities.

What thought and care to determine the exact site for a bridge, or for a fountain, and to give a mountain road that perfect curve which is at the same time the shortest..."

**FROM "MEMOIRS OF HADRIAN"  
BY MARGUERITE YOURCENAR**

# CONSTRUCTION

The ASTM Group is active in the construction sector through the Itinera Group, an international player in the construction of large infrastructure works and civil and industrial construction projects.

## LARGE INFRASTRUCTURE WORKS

OVER 100 KM OF TUNNELS  
OVER 1,000 KM OF ROADS AND RAILWAYS



**€381 MILLION**  
IN REVENUE IN 2016

\*Figures from Itinera Consolidated Financial Statements as at 31 December 2016

**€3.9 BILLION**  
WORK IN HAND



**753 EMPLOYEES**  
98% WITH PERMANENT CONTRACTS

**-12% DIRECT AND  
INDIRECT CO<sub>2</sub> EMISSIONS  
COMPARED TO 2015**

## OUR PRESENCE IN THE WORLD

ALGERIA  
SAUDI ARABIA  
ARMENIA  
BOTSWANA  
BRAZIL  
UNITED ARAB EMIRATES  
ITALY

KENYA  
KUWAIT  
MOZAMBIQUE  
OMAN  
ROMANIA  
SOUTH AFRICA  
USA

With experience and know-how acquired over 75 years in Italy and worldwide, Itinera (an ASTM subsidiary) is now one of Italy's leading companies for the construction of large infrastructure projects (roads, motorways, railways, metros) and civil and industrial construction (ports, airports, hospitals, universities, shopping centres).

In synergy with the other Group companies, Itinera is also active in Italy and worldwide in the promotion and development of PPP (Private-Public Partnership) projects and BOT (Build Operate Transfer) projects.

#### ITINERA'S ASPIRATION IS TO BECOME A LEADER IN INFRASTRUCTURE 4.0



##### VISION

**To be one of the best infrastructure companies in Italy, renowned for developing a broad set of outstanding infrastructure products for the global market (Infrastructure 4.0) and providing its global customers with high-quality, innovative and timely solutions.**



##### MISSION

**Itinera has always pursued ambitious goals, in full synergy with the Group.**

**The size of the Group and its technical and professional skills enable the company to guarantee its clients - whether public or private - incredible results in terms of the quality of the works and respect for delivery times.**

**Itinera understands that its work makes it easier to transport people and goods, and improves everyone's day-to-day life.**

## SECTOR OF OPERATIONS



**INFRASTRUCTURE  
ROADS AND  
RAILWAYS**



**TUNNELS AND  
UNDERGROUND  
WORKS**



**DAMS AND  
MARITIME  
WORKS**



**CIVIL  
CONSTRUCTION**



**MOTORWAY  
MAINTENANCE**



**PREFABRICATED  
STRUCTURES**

### Road and rail infrastructures

Itinera has established itself over the years as a leader in the construction of roads, motorways, railways and bridges. It develops projects of great importance in terms of their contract value and size, both in Italy and abroad, deploying the know-how and experience it has amassed on complex projects. Itinera implements works directly with its own resources, overseeing planning and management to reduce delivery times, in compliance with the high quality standards required by domestic and foreign clients.

In the road and motorway sector, its most significant works are the reconstruction and expansion of the A4 Turin-Milan motorway (over 100 km), the reconstruction of four sections of Romanian state roads (over 200 km), the construction of a motorway in Morocco, and the construction of the A58 Milan east outer ring road and the A35 Bre. Be.Mi (Brescia-Bergamo-Milan motorway).



Improvement work and upgrades A4 Turin - Novara Est section (45 km)



Brescia - Bergamo - Milan motorway



Milan east outer ring road



Automatic metro system in Turin – Lots 3 and 5 – Collegno-Porta Nuova section  
(tunnel length 5.3 km)



Construction of public underground carpark with 550 short-term spaces, Piazza Meda – Milan

Notable projects in the railway sector include the construction of the Bari-Taranto line, a number of stretches in Sardinia, and in particular the construction of the new high-speed/high-capacity Milan-Turin line, with a total length of 125 km – an extraordinary technical and organisational feat at what for years was one of the largest construction sites in Europe.

### Tunnels and underground works

Itinera can count on long-term experience in the construction of underground works carried out in both rock and loose soils, including the use of pre-support and consolidation works. There have been numerous road, motorway and railway tunnel works built with a total length of over 100 kilometres.

Itinera's extensive experience enables it to successfully resolve every type of geological difficulty, using the know-how of its personnel and specific machinery and systems to set up an effective organisation providing techniques and solutions on a case-by-case basis.

Over the years, Itinera has acquired expertise in urban subway and underground station construction, using full-face tunnel boring machines. Examples include the Turin and Naples subway systems. The company also boasts years of experience in the construction and management of underground multi-storey public car parks in cities including Milan and Turin

### Dams and maritime works

Itinera's many activities in the construction business also include the water and energy sector.

It built the dam on the Tirso river near Busachi in the Sardinian province of Oristano, one of Europe's largest reinforced concrete dams. It is currently building a dam on the Cedrino river near Dorgali in the Sardinian province of Nuoro.

In terms of maritime works, in 2016 it also won two contracts in Kenya for the construction of two dams that will supply power for civil and industrial uses to over 1 million people in the northwest of Kenya.

Its hydraulic projects include numerous river bank works and major interceptor sewers in cities such as Trieste and Florence.

### Civil and industrial construction

Itinera is a highly regarded player in civil construction, particularly as a contractor on large-scale public and private projects such as airports, hospitals, universities and public buildings. It also manages luxury residential building projects as well as restoration and conservation projects.

Its major works include the Arese shopping centre - one of the largest in Europe.

**Airports.** Over the years, Itinera has handled many airport construction projects - taxiways, runways, aprons, terminals - for Italy's main hubs, including Milan-Malpensa, Rome Fiumicino, Bari Palese, Venice Tesserà, Bologna Borgo Panigale, Aosta Corrado Gex.



Naples metro system: construction of Dante-Garibaldi section, depot and workshop in Secondigliano, Piazza Dante station and Montesano corridor - Line 1



Dam on Tirso river (Oristano)



Dam on Cedrino river (Nuoro)



Milan Malpensa Airport: Completion of underground structures and construction of connecting walkway



New Einaudi Campus - Law and Political Science Departments, Turin



Santo Volto Church, Turin

It uses innovative materials and advanced technologies, such as concrete slab paving, embankments and asphalt concrete made with expanded clay aggregate, to enable airports to deliver high performance levels.

**Hospitals** Itinera has built new hospital facilities to the most exacting healthcare building standards. In view of the high demand on today's public and private markets, Itinera operates not only as a constructor but also as a promoter of project financing initiatives involving hospital design and construction, and management of non-medical services.

**Office and Service Facilities** Itinera has gained considerable experience in the construction of large logistics terminals, industrial and commercial buildings, university campuses and office buildings. It adds extra value by using its own factory for industrial prefabrication operations.

**Restoration and Renovation** Itinera has acquired important experience in renovation and restoration, successfully completing high-profile projects for important clients in both the public and the private sectors.



## Motorway maintenance

One of Itinera's main sectors of operation is ordinary and extraordinary maintenance work to keep the more than 1,500 km of motorways operated by the Gavio Group safe and efficient.

Every year, Itinera carries out important road maintenance and resurfacing work, using asphalt concrete with its own fixed and mobile production plants, which make it one of today's most highly qualified players in this specialised field.

In road maintenance, Itinera has developed impressive expertise in the use of innovative high-performance materials such as cold recycled road foundations, various types of noise-absorbing pavings with high drainage properties, and high elastic module.

Other road maintenance operations include the renewal of concrete on structural works, replacement of bridge and viaduct supports, installation of sound and safety barriers, maintenance of green areas. Extraordinary maintenance includes rebuilding of bridges and overpasses, and construction of toll barriers and service stations.

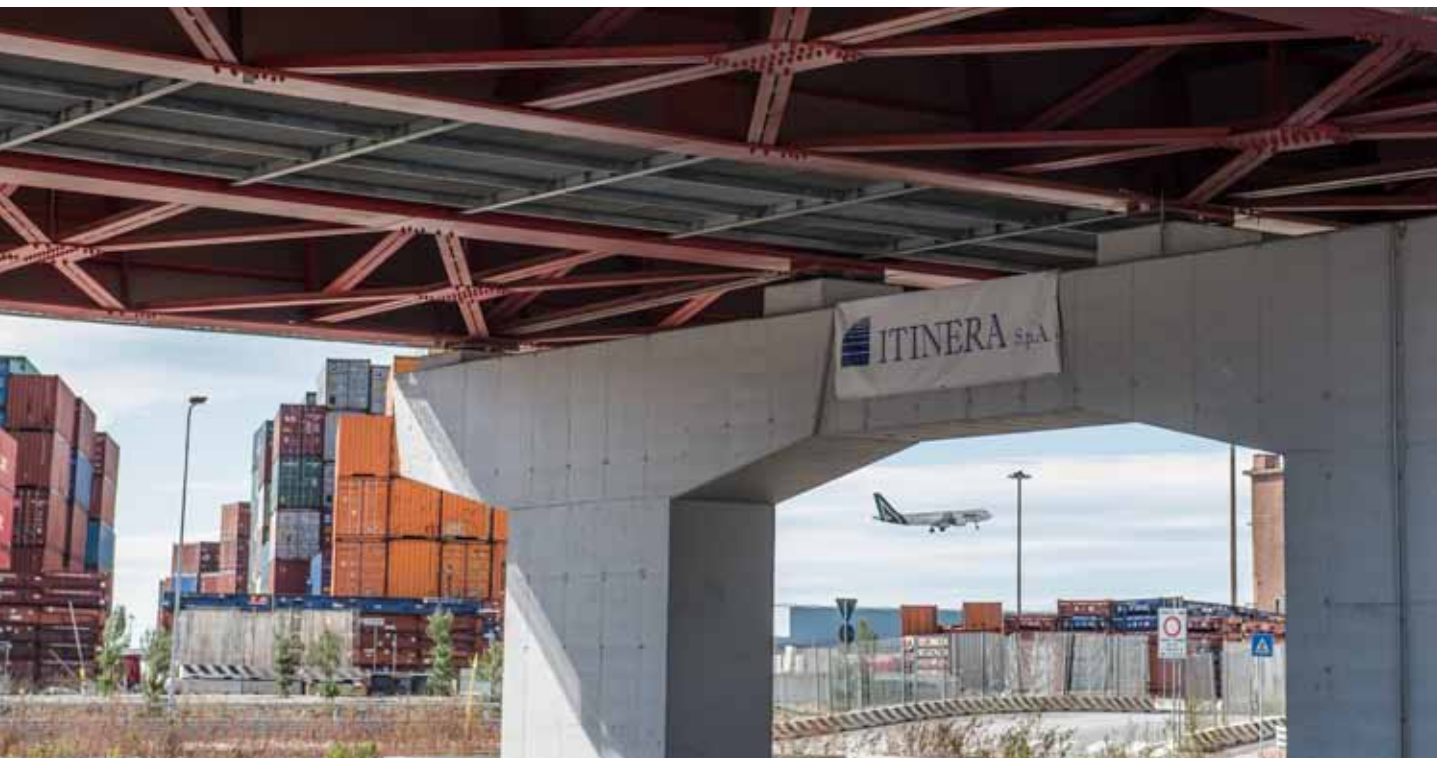


### Prefabricated structures

In the specific area of industrial prefabrication, over the years Itinera has consolidated its expertise in infrastructure, industrial and commercial buildings, and complex structures for underground multi-storey car parks.

It offers significant experience in the production of boxed tunnels, arched tunnels and beams for bridges and viaducts.

Itinera is also an important producer of Jersey road barriers and "Stelcon" type industrial flooring, where it is a market leader.



**Commitment to quality, environment, health and safety**

With the engagement and involvement of all staff, Itinera has implemented a Quality Management System conforming to the UNI EN ISO 9001 series standard since 2002. Itinera ensures that the Quality Management System is kept up to date.

At ITINERA we consider the protection of the health and safety of our workers to be of primary importance and our objective is not only comply with the requirements of the related specific regulations, but also to strive to continually improve working conditions.

Itinera has implemented an occupational health and safety management system that is certified and compliant with OSHAS 18001: 2007.

ITINERA promotes respect for the environment and sees it as a key aspect in all types of project. The company is absolutely committed to orienting its business to ensure compliance with these principles, taking into account the need for responsible use of natural resources.

To this end, ITINERA takes special care to follow the evolution of national and European environmental legislation and has implemented an environmental management system in accordance with ISO 14001: 2004.



The management systems have been progressively integrated to optimise synergies and in August 2015 Itinera adopted an Integrated Quality, Health, Safety and Environment Policy that set out the business priorities that run parallel to the production process and the goals the company sets itself to meet its commitments. Additionally, in 2017 the Abu Dhabi branch office of Itinera completed the implementation of a Quality Management System compliant with UNI EN ISO 9001: 2008, OSHAS 18001: 2007 and ISO 14001: 2004.

The company's priorities include:

- always ensure the satisfaction of its users and of all the main stakeholders;

- ensure the effectiveness and efficiency of all business processes always looking for a continuous improvement of the same and the quality of the product;
- eliminate, minimize or control the health and safety risks to ensure maximum protection of its workers and its subcontractors;
- ensure adequate protection of the environment and reduce the environmental impacts.

The policy - which is periodically reviewed to ensure its adequacy - is promoted, distributed and publicised within the company, to all employees and, as appropriate, to subcontractors and external contract workers.



#### GENERAL PRINCIPLES CONTAINED IN THE COMPANY'S CODE OF ETHICS

Itinera carries on its business activity in full compliance with any applicable national or international rules and, to reach its goals, it follows the following principles:

- respect for any applicable rule or regulation in the countries in which the company operates;
- compliance with the most rigorous rules of conduct in any relationship with government agencies, in full respect of their role;
- honesty, transparency and reliability;
- professionalism, loyalty, correctness and good faith;
- respect for its employees and contract workers and for people in general;
- environmental and safety safeguards, with reference also to labour rules;
- compliance with the procedures set forth by the Company for the use of IT instruments;
- protection of health and the environment.

### **Focus on ethics and the Organisational Model pursuant to Legislative Decree 231/01**

Itinera has a policy of raising awareness of ethical conduct and working activities, viewing ethical internal and external relations as an essential basis for every action.

In order to clearly and transparently define the values to which the company aspires and to ensure the prevention of the crimes covered by Legislative Decree 231/01, Itinera also has a Code of Ethics and a 231 Model, observance of which is highly important and essential for the proper functioning, reliability, reputation and image of the company.

### **Itinera and safety in worksites**

#### **OHSAS 18001:2007 certification**

At its worksites Itinera also applies an occupational health and safety management system certified according to OHSAS 18001:2007.

Audits, inspections, investigations and reviews of breaches are managed through documented action plans and focus on corrective and preventive measures ("non-compliance, corrections and preventive management actions").

The Management Systems Office also performs periodic inspections of operating areas to analyse the implementation and application of the Management System, as well as the implementation of actions to address breaches; these encounters provide an important opportunity to compare and contrast the work of the various operational entities.

The results of these inspections are recorded in reports and on the system.



### Training courses

Itinera pays maximum attention to the continuous training of its employees, at all levels. Approximately 3,236 hours of training were provided in the course of 2016. In addition to the compulsory training courses already required by legislation, it should also be noted that the company identified a group of employees who received a training course to qualify as occupational safety trainers as part of the "Prevention and Protection Service", to facilitate and improve awareness and internal skills on the subject.



### QUALITY WORKSITES

Itinera has promoted the "Quality Worksite" initiative with the collaboration and support of Milan's "CPT, Scuola Edile, Cassa Edile". The initiative has already been suc-

cessfully activated in the Arese and Ferrovie Nord Turbigo worksites. The project is aimed at ensuring compliance with legal training requirements and regular payment of contributions, as well as improving the organisation of the worksite

and of the company's subcontractors. The worksites in question were awarded a certificate of "quality in safety" at the end of the process. It is also worth noting that this initiative saw the involvement of the control body ASL.



## ARESE SHOPPING CENTRE

### THE PROJECT

The Arese shopping centre was opened on 13 April 2016. Currently the largest shopping mall in Italy, it was built by Itinera.

The complex is located on the site of the disused Alfa Romeo motor factory - the size of a city and measuring 2 million square metres - which has been redeveloped thanks to a major reclamation operation.

The project involved the construction of a multifunctional centre covering about 180,000 square meters, arranged over two floors, which is expected to create about 2,500 new jobs. The Centre was awarded the "Mapic Awards 2016" - an international prize for excellence, innovation and creativity in the real estate sector at the industry's largest trade fair, the International Retail Property Market.

### VALUE ADDED

The architectural concept stands out for its system of piazzas and its internal ramp, recalling the Guggenheim Museum in New York. The methodology used to design the roof was particularly innovative: the roof structure is in Glulam, bonded laminated timber made of sustainable materials, and is among the largest ever made in Europe with beams up to 43 meters in length. The entire complex was designed according to strict energy and bio-sustainability criteria, in line with standards promoted by the US Green Building Council, leading to the award of prestigious LEED Gold certification.

LEED is a certification programme applied to any type of building throughout its life cycle, from design to construction. The certification is based on environmental and energy principles recognised by the international scientific com-

munity, promoting a sustainability-oriented approach by assigning scores to the many requirements considered. The Arese shopping centre obtained 74 points in the certification process, thus falling easily into the "GOLD - LEED Italy New Constructions 2009" class.

There are many key features of the construction in this area:

**ENERGY** - The use of renewable sources has been guaranteed by the installation of 4,700 photovoltaic modules with a power output of 1,128 KW, enabling a significant reduction in energy requirements.

**WATER MANAGEMENT** - Thanks to a system for collecting and re-using rainwater and the installation of timed electronic taps, it is possible to achieve annual water savings of over 45%.

**MATERIALS AND RESOURCES** - The over 44,000 sq. m. of green coverage on the complex improves the quality of thermal and acoustic insulation, while limiting water runoff in the surrounding area, generating both energy and economic benefits. In addition, during the design and construction phase, there was a focus on reusing discarded material or material recovered from the waste disposal and recycling chain.







**INDOOR QUALITY** - The large windows, built with 72% solar reflection and protected by wooden slats, modulate direct sunlight.

**SITE SUSTAINABILITY** -The shopping centre is strategically located near the Arese exit on the A8 motorway and public transport stops. There is also a special focus on light and sustainable transport by providing services for cyclists and electric cars.

**USE OF MATERIALS** - The materials used for the construction of the complex - including the reinforced concrete and wood structure, the internal and external flooring, and the smallest interior details - was also an important part of the design, with a preference for reused waste materials, materials recovered from the waste disposal and recycling chain, or assembled within a maximum distance of 800 km from the site.

## FUNCTIONAL RESTORATION OF THE COVERING OF THE BISAGNO RIVER, GENOA

### THE PROJECT

On 10 October 2016, in the presence of the Italian Minister of Defence, the worksite for the construction of lot II of the project for the functional restoration of the covering of the Bisagno river in Genoa was inaugurated. The aim was to improve water outflow conditions between Via Santa Zita and the Genoa Brignole railway bridge.

The works on the Bisagno covering extend over 374.5 metres and will protect against new hydrogeological hazards and disruption in a large area of the city of Genoa, with significant benefits in terms of increased safety for the city's people and businesses.

The Bisagno river is one of the main watercourses in the Ligurian capital, which unfortunately can cause flooding when running high. Once the whole stretch of

the covering has been built, the capacity of the Bisagno will increase considerably, significantly reducing the danger of floods. The work is part of the Italian Government's #ItaliaSicura programme to address hydrogeological disruption in the country.

### THE COMPLEXITY OF THE WORKS

The realisation of the work presents obvious levels of complexity due to the context in which it takes place. In particular the following needs must be reconciled:

- modify the hydraulics of the existing structures to ensure an outflow capacity of the water section that allows the maximum possible flow rates of the Bisagno river to be discharged;
- undertake structural work to adapt the existing covering to existing regulations for decks designed to bear accidental loads for Category 1 bridges;



- ensure - in a key area for transport in the city of Genoa - the ability for current traffic flows to disperse, minimising any impacts.

The work has just begun and features techniques involving countless solutions to minimise environmental impacts on the city, traffic, air, water and land.

Significant environmental mitigation measures are in place, such as the reduction and/or containment of emissions from worksites, dust and pollutants, and the volume of demolition excavation material; logistics and storage areas have been streamlined or moved away.

The impact of the worksite on local roads will also be mitigated by optimising the construction phases, pedestrian routes, accessibility to adjacent multi-storey towers and ensuring that carparking spaces are retained.

Hydraulic monitoring and warning systems related to site activities will also be installed.

### COMMUNICATION PLAN

During the work, particular attention will also be paid to the plan for communications with residents. An innovative approach will be adopted and the spaces created on the worksite fences, the big screen and social networks will all be used to ensure the site is visited and discovered by citizens. Various initiatives will set out to develop new awareness among the citizens of Genoa of why the Bisagno was covered and why it needs to be re-developed. The difficulties posed by the worksite will also be managed through information, as well as providing transport guidance and ensuring the worksite is seen as a cultural resource.



*"The worksite for the Bisagno river is a key infrastructural work for Genoa that is long-awaited among its citizens. For the Gavio Group, which has built and manages some of the most important infrastructure*

*in the Liguria Region, undertaking this fundamental project for the city is a source of great satisfaction. We are well placed to give everything we can to infrastructure building, in terms of experience and the ability*

*to secure the quickest and most efficient completion of this important project for the safety of Genoa."*

*Massimo Malvagna  
Managing Director  
of Itinera*



## ENGINEERING

**ENSURING THE BEST  
CUSTOMER SERVICE**



**ENGINEERING**

**A KEY ISSUE  
FOR TRANSPORT**

**€49 MILLION  
IN REVENUE IN 2016**

\*IAS IFRS data as at 31.12.2016, including inter-company relationships

**SINA**

**SINECO**



**ENSURING A  
MORE EFFICIENT  
INFRASTRUCTURE LIFE  
CYCLE**

Engineering is a key issue for transport operators and for mobility.

The ASTM Group is active in the promotion, design and development of new projects in the transport and communications sector, as well as in the engineering, oversight and maintenance of infrastructure works through the subsidiaries Sina and Sineco.

The companies can claim a significant international track record and specific skills to ensure better customer service and a more efficient infrastructure life cycle.

SINA manages the research, promotion, design and construction supervision of new works in the field of large transport infrastructures. The company is also specialised in the design of active and passive safety systems (safety barriers, tunnel systems), as well as assessing and mitigating environmental impacts.

SINA's work does not end with the deployment of the infrastructure, but continues over time to support its management and improvement.

## SINA

SINECO oversees monitoring and inspection of infrastructures and the environment in which they are located.

tification and planning of maintenance activities, and the design of infrastructure upgrades.

## SINECO

The company's primary mission is to provide specialised technical support to operators of road, airport and railway networks for the monitoring, operation and management of works, or for the iden-

SINECO's main markets are: roads and motorways, railways, the environment, architectural heritage and airports.



In the field of environmental protection, **SINECO** has technologically advanced equipment and a laboratory equipped for

environmental testing. The company has amassed significant experience in determining the pollutants produced by

road, rail and airport traffic, as regards acoustics and also air, water and soil quality.



SINA manages the research, design and supervision of measures for the optimal installation of infrastructure works and related facilities, protecting environmental interests during

construction and operation. In particular it is specialised in:

- Environmental studies and design
- Land reclamation and waste-site management

- Environmental monitoring
- Worksite audits
- Archaeological studies and investigations
- Specialist studies in the field of noise pollution.

**SINA-SINECO'S ASPIRATION IS TO CONTINUE TO BE THE GROUP'S COMPETENCE CENTRE AND SIMULTANEOUSLY COMPETE ON NATIONAL AND INTERNATIONAL MARKETS**



**VISION**

**To be one of the leading engineering companies in Italy, recognised for the excellence of solutions developed for the domestic and international markets.**



**MISSION**

**To offer our global customers top-quality, cost-effective engineering and technical solutions for roads, tunnels and bridges worldwide.**

## TECHNOLOGY



**€93 MILLION  
IN REVENUE IN 2016**

\*IAS IFRS data as at 31 December 2016, including inter-company relationships

**371 EMPLOYEES  
IN 2016**

**SINELEC**

**EUROIMPIANTI**

**DESIGN  
AND DEVELOPMENT  
OF COMPLETE TOLL COLLECTION  
SYSTEMS**



The Group's business is telecommunications and traffic management systems, mainly through Sinelec, a company specialising in managing integrated systems and online services relating to toll collection and traffic information, and Euroimpianti Electronics.

The main activities carried out by the company include:

- the design, construction and maintenance of toll collection systems;
- the management of open, closed and interlinked motorway systems, regarding equipment as well as data acquisition, control and processing;
- the design, construction and maintenance of user information equipment via VMS (Vari-

able Message Signs), video surveillance, weather and traffic data detection, helplines, single-frequency radio networks, fibre optic communication systems, backbone cabling, remote control systems and technological systems in general;

- the development of specialised application systems for mobility systems, via housing and hosting services;
- outsourced data processing services;
- toll management systems (hardware and software) for tunnels and bridges (e.g. The Fréjus and Great St. Bernard tunnels in Italy, the Vasco de Gama and XXV Abril bridges in Lisbon).



## SINELEC

With extensive experience in the motorway industry, Sinelec deals with the design, construction, installation and maintenance of advanced systems for transport mobility. Sinelec has recently devoted significant resources to IT outsourcing services, as well as computer systems for the strategic and industrial management of transport company processes.

Sinelec works with all intelligent telematics systems for transport, such as the technological systems for Europe's motorway network, advanced toll collection systems, intelligent telematics transport information systems and driving support and safety enhancement systems.

Sinelec also holds the telecommunications operator license for Italy, issued by the Ministry of Economic Development.

Since 2001, Sinelec has been certified with the UNI EN ISO 9001:2008 quality management system, and has recently obtained UNI CEI ISO/IEC 27001:2014 certification for information security management.





## TOLL COLLECTION SYSTEMS

Since 2011, Sinelec has operated in the sector for the design and development of complete toll collection systems.

The system is installed and operational at about 900 toll-gates across Italy and is designed to manage the European Electronic Toll Service (EETS), soon to be introduced into the motorway sector, and is formally certified by the notified bodies as compliant with the ETSI EN 200674-1 standard.

In terms of data processing, be-

ginning in the 1990s, Sinelec has developed the most "open" national platform for the acquisition, processing and logging of motorway tolls, still successfully used by 12 operators in Italy; the system is managed through "Software as a Service" at the Datacenter in Tortona.

It is one of the best in the industry in Italy, restricted to a very limited number of industrial operators. Because of this, in 2013, AISCAT (the Italian National Association of Toll Motorway Operators) contracted Sinelec, in a joint venture with Autostrade Tech, for the de-

sign, construction and management over three years of the Sistema Centrale di Comparto. This system processes data on motorway tolls based on actual distance covered and on integrating the next EETS service providers into toll collection in Italy, as required by European Commission resolution 2009/750/EC of 6 October 2009.

Sinelec also has several years' experience in the maintenance of toll collection systems, operating daily both on its own systems, recently installed at various companies in Italy, and on those provided by Autostrade per l'Italia S.p.A..

The service is organised into different teams at the various companies, consisting of highly specialised technicians who ensure



service continuity 24/7. The maintenance teams are equipped with next generation tools and have laboratories at all locations of operation, equipped with the most efficient measurement, control and simulation instruments for the systems being operated.

The experience acquired in the industry allows Sinelec to efficiently maintain the existing systems on about 1,500 km of motorway, successfully combining economy and quality in the service offered.

### **SINELEC TOLL COLLECTION TECHNOLOGY**

Particularly significant is the recent experience of realising an innovative toll collection system based on the latest industrial technologies, which Sinelec developed to meet the needs of the market, which is focused on interoperable services within the EU.

Sinelec's toll collection system comprises an advanced technological and engineering infrastructure, and is a significant step forward from systems currently on the market. The development of new technology was particularly focused on those parts of the system most affected by the new pro-

cesses and new requirements (e.g. EETS) and, last but not least, by the need to overcome certain components' obsolescence. The proposed new architecture is based on certain fundamental principles:

- the use of the market's industry standard technology;
- the migration of communication protocols from IP network serial technology, with a consequent increase in transmission speed and efficiency and the simplification of control processes;
- the replacement of proprietary control boards with other equivalent boards, using open architecture and market components;
- the simplification of the configuration, remote control and technical monitoring architecture, with the introduction of a centralised multifunctional control centre.



### **MULTI-LANE FREE FLOW TOLL COLLECTION TECHNOLOGY**

With the first Italian open Multi-lane Free Flow toll collection system (the A36 Pedemontana Lombarda motorway and the Como and Varese ring roads), Sinelec partnered with Autostrade Tech on the introduction of this new approach to toll collection.

The toll collection booths, positioned across the direction of travel, are equipped with:

- a vehicle classification system,
- a DSRC (Dedicated Short Range Communications) detection system, ETSI EN 200674-1,
- a photo toll system, which takes an image of the vehicle's license plate and of the circumstances of transit.

Sinelec's role was particularly important in creating the Data Centre infrastructure for data processing, with far more complex issues than is normally the case.

Sinelec also takes care of the maintenance of all detection booths and associated infrastructure, as well as all specialist auxiliary systems in addition to the toll collection technology.

One of Euroimpianti's most interesting activities of late is an Energy Saving project for the public lighting system in Giaveno (near Turin).

The Euroimpianti project envisages the awarding under concession of the operation and maintenance of public lighting systems owned by the Municipality of Giaveno for 22 years. The main aim of the

concession is to improve the quality of public lighting, through the upgrading, regulatory compliance and increased energy efficiency of the existing system. This mainly involves replacing the approximately 2,000 existing lighting systems with LED units. The project qualifies for "project funding" under art. 3, paragraph 15-ter of Legislative Decree 163/2006.



Euroimpianti Electronic has thirty years' experience in the design, construction and maintenance of technological systems (electrical, special, thermal and mechanical) for infrastructure. In addition to its participation in the building of numerous tunnels, junctions, toll booths and service areas on the national motorway network, the company manages the electrical and mechanical maintenance of most of the motorways in the north

west of Italy, under concession from the Group. Over the years, Euroimpianti has expanded its commercial offering in civil, tertiary and industrial engineering, developing technological systems in shopping centres, booth logistics platforms, museums and residential buildings. Euroimpianti has a corporate industrial panels division, with the design and manufacture of low/medium voltage electrical distribution panels and industrial automa-

tion panels for remote operation and supervision. Every day, the company demonstrates its sensitivity to safeguarding and protecting the environment, investing resources in researching technology and developing numerous systems for producing energy with photovoltaic technology, district heating and cogeneration plants, in addition to realising energy efficiency projects for public lighting systems via project funding.





Connected to the future!  
**IDEAS, PEOPLE AND VALUES**

# Appendices



# Appendices

## CONCESSIONS SECTOR - COMMITMENT TO OUR EMPLOYEES

### BREAKDOWN OF PERSONNEL BY CONTRACT TYPE (TEMPORARY VS. PERMANENT) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Temporary	84	23	107	77	27	104
Permanent	1,466	422	1,888	1,456	439	1,895
<b>Total</b>	<b>1,550</b>	<b>445</b>	<b>1,995</b>	<b>1,533</b>	<b>466</b>	<b>1,999</b>

### BREAKDOWN OF PERSONNEL BY EMPLOYMENT TYPE (FULL TIME VS. PART TIME) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Full time	1,251	235	1,486	1,240	246	1,486
Part time	215	187	402	216	193	409
<b>Total</b>	<b>1,466</b>	<b>422</b>	<b>1,888</b>	<b>1,456</b>	<b>439</b>	<b>1,895</b>

### PERSONNEL AND EXTERNAL CONTRACT WORKERS BY GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Employees	1,550	445	1,995	1,533	466	1,999
Other contract workers	5	1	6	4	1	5
<b>Total</b>	<b>1,555</b>	<b>446</b>	<b>2,001</b>	<b>1,537</b>	<b>467</b>	<b>2,004</b>



**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	29	4	33	29	6	35
Middle managers	44	7	51	44	11	55
Office workers	1,208	432	1,640	1,189	441	1,630
Manual workers	269	2	271	271	8	279
<b>Total</b>	<b>1,550</b>	<b>445</b>	<b>1,995</b>	<b>1,533</b>	<b>466</b>	<b>1,999</b>

**PROTECTED CATEGORIES**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	-	-	-	-	-	-
Middle managers	-	-	-	1	-	1
Office workers	66	17	83	66	17	83
Manual workers	11	1	12	11	1	12
<b>Total</b>	<b>77</b>	<b>18</b>	<b>95</b>	<b>78</b>	<b>18</b>	<b>96</b>

**INJURIES AND OCCUPATIONAL DISEASES**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Occupational diseases	-	-	-	1	-	1
Injuries	24	5	29	33	8	41
<i>of which fatal</i>	-	-	-	-	-	-

**TYPE OF GROUP PERSONNEL INJURIES BY GENDER**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Injuries in the workplace	18	4	<b>22</b>	25	5	<b>30</b>
Travel injuries	6	1	<b>7</b>	8	3	<b>11</b>

**HEALTH AND SAFETY INDICATORS**

	2015			2016		
	Men	Women	Total	Men	Women	Total
Severity Rate	0.26	0.33	<b>0.27</b>	0.33	0.17	<b>0.29</b>
Rate of occupational disease	-	-	-	0.09	-	<b>0.07</b>
Absentee rate	3.58	4.86	<b>3.85</b>	4.26	5.02	<b>4.42</b>
Injury rate	10.14	8.64	<b>9.84</b>	14.21	13.15	<b>13.99</b>

**DAYS OF ABSENCE**

NO. OF DAYS	2015			2016		
	Men	Women	Total	Men	Women	Total
Absences	11,434	3,995	<b>15,429</b>	13,010	4,107	<b>17,117</b>
Lost day	674	224	<b>897</b>	796	112	<b>908</b>

**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE RANGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015				AS AT 31 DECEMBER 2016			
	<30	30-50	>50	Total	<30	30-50	>50	Total
Executives	-	11	22	33	-	9	26	35
Middle managers	-	19	32	51	-	16	39	55
Office workers	56	809	775	1,640	40	753	837	1,630
Manual workers	11	173	87	271	16	161	102	279
<b>Total</b>	<b>67</b>	<b>1,012</b>	<b>916</b>	<b>1,995</b>	<b>56</b>	<b>939</b>	<b>1,004</b>	<b>1,999</b>

**INCOMING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	81	123	40	244	15.74%	48	94	30	172	11.22%
Women	37	75	11	123	27.64%	25	44	11	80	17.17%
<b>Total</b>	<b>118</b>	<b>198</b>	<b>51</b>	<b>367</b>	<b>18.40%</b>	<b>73</b>	<b>138</b>	<b>41</b>	<b>252</b>	<b>12.61%</b>

**OUTGOING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	76	102	73	251	16.19%	46	95	56	197	12.85%
Women	35	51	15	101	22.70%	24	42	13	79	16.95%
<b>Total</b>	<b>111</b>	<b>153</b>	<b>88</b>	<b>352</b>	<b>17.64%</b>	<b>70</b>	<b>137</b>	<b>69</b>	<b>276</b>	<b>13.81%</b>

**THE RATIO OF THE BASIC SALARIES OF WOMEN AND MEN IN THE GROUP BY PROFESSIONAL CATEGORY**

AVERAGE BASIC SALARY	2015		2016	
	Women/men ratio		Women/men ratio	
Executives	0.95		1.03	
Middle managers	0.95		0.95	
Office workers	0.80		0.78	
Manual workers	0.87		0.87	
<b>Total</b>	<b>0.92</b>		<b>0.95</b>	

**TRAINING HOURS**

NO. OF HOURS	2015		2016	
	Number of hours	Hours per capita	Number of hours	Hours per capita
<b>Total</b>	<b>17,345</b>	<b>9</b>	<b>22,847</b>	<b>11</b>

## CONCESSIONS SECTOR – RESPECT FOR THE ENVIRONMENT

### MAIN GOODS CATEGORIES PURCHASED IN 2016

CONCESSIONS SECTOR	%
Road barriers	13%
Chlorides	20%
Asphalt concrete	1%
Iron and steel	6%
Petroleum products	49%
Paper and stationery	10%

### ENERGY CONSUMPTION

	2015	2016
	Total	Total
Natural gas (m <sup>3</sup> /000)	887	625
Heating diesel (l/000)	698	601
Automotive diesel (l/000)	1,902	2,157
Petrol (l/000)	2	3
Electricity (kWh/000)	86,770	87,479
<i>of which purchased</i>	86,638	87,414
<i>of which photovoltaic</i>	380	324
<i>fed into the grid from photovoltaic systems</i>	248	259
LPG (l/000)	48	65

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 2**

	2015	2016
<b>Total</b>	<b>28,070</b>	<b>28,322</b>

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 1**

SOURCE	2015	2016
Natural Gas	1,743	1,228
Heating diesel	1,832	1,579
Automotive diesel	5,025	5,699
Petrol	4	7
LPG	72	99
<b>Total</b>	<b>8,676</b>	<b>8,612</b>

**WATER EXTRACTION [m<sup>3</sup>]**

	2015	2016
	Volume	Volume
Taken from mains water	56,822	57,748
Taken from rivers	4,000	4,076
Taken from groundwater	11,910	13,485
<b>Total water</b>	<b>72,732</b>	<b>75,309</b>

**WASTE DISPOSAL METHOD**

DISPOSAL METHOD	2015				2016			
	Hazardous	Non-hazardous	Total	% Total	Hazardous	Non-hazardous	Total	% Total
Recycling [t]	6	1,215	1,221	35%	25	1,119	1,144	40%
Landfill [t]	10	4551	465	14%	10	469	479	17%
Other [t]	32	1,738	1,770	51%	17	1,183	1,200	43%
<b>Total</b>	<b>48</b>	<b>3,408</b>	<b>3,456</b>	<b>100%</b>	<b>52</b>	<b>2,770</b>	<b>2,822</b>	<b>100%</b>

**IMPACT OF TRANSPORT**

SOURCE OF ENVIRONMENTAL IMPACT	2015		2016	
	Units	Consumption	Units	Consumption
Fuel consumption	litres	2,094,270	litres	2,019,862

## CONSTRUCTION SECTOR - COMMITMENT TO OUR EMPLOYEES

### BREAKDOWN OF PERSONNEL BY CONTRACT TYPE (TEMPORARY VS. PERMANENT) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Temporary	18	5	23	14	3	17
Permanent	783	76	859	665	71	736
<b>Total</b>	<b>801</b>	<b>81</b>	<b>882</b>	<b>679</b>	<b>74</b>	<b>753</b>

### BREAKDOWN OF PERSONNEL BY EMPLOYMENT TYPE (FULL TIME VS. PART TIME) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Full time	780	65	845	663	61	724
Part time	3	11	14	2	10	12
<b>Total</b>	<b>783</b>	<b>76</b>	<b>859</b>	<b>665</b>	<b>71</b>	<b>736</b>

### PERSONNEL AND EXTERNAL CONTRACT WORKERS BY GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Employees	801	81	882	679	74	753
Other contract workers	10	1	11	4	-	4
<b>Total</b>	<b>811</b>	<b>82</b>	<b>893</b>	<b>683</b>	<b>74</b>	<b>757</b>



**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	39	2	41	42	3	45
Middle managers	39	3	42	41	3	44
Office workers	285	75	360	232	67	299
Manual workers	438	1	439	364	1	365
<b>Total</b>	<b>801</b>	<b>81</b>	<b>882</b>	<b>679</b>	<b>74</b>	<b>753</b>

**PROTECTED CATEGORIES**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	-	-	-	-	-	-
Middle managers	-	-	-	-	-	-
Office workers	7	4	11	5	4	9
Manual workers	19	-	19	18	-	18
<b>Total</b>	<b>26</b>	<b>4</b>	<b>30</b>	<b>23</b>	<b>4</b>	<b>27</b>

**INJURIES AND OCCUPATIONAL DISEASES**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Occupational diseases	5	-	5	5	-	5
Injuries	51	1	52	21	-	21
<i>of which fatal</i>	-	-	-	-	-	-

**TYPE OF GROUP PERSONNEL INJURIES BY GENDER**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Injuries in the workplace	44	1	<b>45</b>	21	-	<b>21</b>
Travel injuries	7	-	<b>7</b>	-	-	<b>-</b>

**HEALTH AND SAFETY INDICATORS**

	2015			2016		
	Men	Women	Total	Men	Women	Total
Severity Rate	0.79	0.18	<b>0.74</b>	0.52	-	<b>0.47</b>
Rate of occupational disease	0.66	-	<b>0.60</b>	0.77	-	<b>0.71</b>
Absentee rate	4.01	1.67	<b>3.81</b>	5.16	1.43	<b>4.83</b>
Injury rate	33.53	7.32	<b>31.37</b>	16.25	-	<b>14.87</b>

**DAYS OF ABSENCE**

NO. OF DAYS	2015			2016		
	Men	Women	Total	Men	Women	Total
Absences	7,788	302	<b>8,090</b>	8,616	231	<b>8,847</b>
Lost day	1,224	26	<b>1,250</b>	695	-	<b>695</b>

**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE RANGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015				AS AT 31 DECEMBER 2016			
	<30	30-50	>50	Total	<30	30-50	>50	Total
Executives	-	12	29	41	-	14	31	45
Middle managers	-	20	22	42	-	19	25	44
Office workers	16	244	100	360	7	203	89	299
Manual workers	6	199	234	439	2	161	202	365
<b>Total</b>	<b>22</b>	<b>475</b>	<b>385</b>	<b>882</b>	<b>9</b>	<b>397</b>	<b>347</b>	<b>753</b>

**INCOMING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	3	34	17	54	6.74%	1	11	17	29	4.27%
Women	1	3	-	4	4.94%	-	2	-	2	2.70%
<b>Total</b>	<b>4</b>	<b>37</b>	<b>17</b>	<b>58</b>	<b>6.58%</b>	<b>1</b>	<b>13</b>	<b>17</b>	<b>31</b>	<b>4.12%</b>

**OUTGOING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	13	64	65	142	17.73%	9	62	74	145	21.35%
Women	-	7	1	8	9.88%	-	4	3	7	9.46%
<b>Total</b>	<b>13</b>	<b>71</b>	<b>66</b>	<b>150</b>	<b>17.01%</b>	<b>9</b>	<b>66</b>	<b>77</b>	<b>152</b>	<b>20.19%</b>

**THE RATIO OF THE BASIC SALARIES OF WOMEN AND MEN IN THE GROUP BY PROFESSIONAL CATEGORY**

AVERAGE BASIC SALARY	2015		2016	
	Women/men ratio		Women/men ratio	
Executives	1.44		1.79	
Middle managers	1.03		0.95	
Office workers	0.66		0.71	
Manual workers	-		-	
<b>Total</b>	<b>1.49</b>		<b>1.76</b>	

**TRAINING HOURS**

NO. OF HOURS	2015		2016	
	Number of hours	Hours per capita	Number of hours	Hours per capita
<b>Total</b>	<b>5,332</b>	<b>6</b>	<b>3,236</b>	<b>4</b>

## CONSTRUCTION SECTOR – RESPECT FOR THE ENVIRONMENT

### MAIN GOODS CATEGORIES PURCHASED IN 2016

CONSTRUCTION SECTOR	%
Road barriers	8%
Bitumen	9%
Concrete	12%
Cement and other binders	3%
Asphalt concrete	29%
Iron and steel	24%
Electrical systems	1%
Cement pre-fabrications	3%
Petroleum products	10%

### ENERGY CONSUMPTION

	2015	2016
	Total	Total
Natural gas (m <sup>3</sup> /000)	451	433
Automotive diesel (l/000)	4,160	3,716
Petrol (l/000)	1	1
Electricity (kWh/000)	18	7
<i>of which purchased</i>	4,877	3,807
<i>of which photovoltaic</i>	4,877	3,807

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 2**

	2015	2016
<b>Total</b>	<b>1,580</b>	<b>1,233</b>

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 1**

SOURCE	2015	2016
Natural Gas	887	851
Automotive diesel	10,989	9,816
Fuel oil	3	3
Petrol	39	16
<b>Total</b>	<b>11,919</b>	<b>10,688</b>

**WATER EXTRACTION [m<sup>3</sup>]**

	2015	2016
	Volume	Volume
Taken from mains water	54,745	46,538
Taken from rivers	35,000	31,500
Taken from groundwater	7,300	6,376
<b>Total water</b>	<b>97,045</b>	<b>84,414</b>

**WASTE DISPOSAL METHOD**

DISPOSAL METHOD	2015				2016			
	Hazardous	Non-hazardous	Total	% Total	Hazardous	Non-hazardous	Total	% Total
Re-use [t]	-	-	-	-	-	246,146	246,146	66%
Recycling [t]	25	299,326	299,351	94%	70	119,140	119,209	32%
Energy recovery [t]	-	-	-	-	-	-	-	-
Incineration [t]	-	142	142	-	-	-	-	-
Landfill [t]	31	484	515	-	21	146	167	-
Other [t]	0.10	18,443	18,443	6%	-	7,509	7,509	2%
<b>Total</b>	<b>57</b>	<b>318,395</b>	<b>318,452</b>	<b>100%</b>	<b>91</b>	<b>372,940</b>	<b>373,031</b>	<b>100%</b>

**IMPACT OF TRANSPORT**

SOURCE OF ENVIRONMENTAL IMPACT	2015		2016	
	Units	Consumption	Units	Consumption
Fuel consumption	litres	2,337,111	litres	1,901,342

## ENGINEERING SECTOR – COMMITMENT TO OUR EMPLOYEES

### BREAKDOWN OF PERSONNEL BY CONTRACT TYPE (TEMPORARY VS. PERMANENT) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Temporary	15	-	15	5	1	6
Permanent	201	103	304	189	92	281
<b>Total</b>	<b>216</b>	<b>103</b>	<b>319</b>	<b>194</b>	<b>93</b>	<b>287</b>

### BREAKDOWN OF PERSONNEL BY EMPLOYMENT TYPE (FULL TIME VS. PART TIME) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Full time	201	101	302	189	90	279
Part time	-	2	2	-	2	2
<b>Total</b>	<b>201</b>	<b>103</b>	<b>304</b>	<b>189</b>	<b>92</b>	<b>281</b>

### PERSONNEL AND EXTERNAL CONTRACT WORKERS BY GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Employees	216	103	319	194	93	287
Other contract workers	-	-	-	-	-	-
<b>Total</b>	<b>216</b>	<b>103</b>	<b>319</b>	<b>194</b>	<b>93</b>	<b>287</b>



**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	24	5	29	20	4	24
Middle managers	29	3	32	27	3	30
Office workers	163	95	258	147	86	233
Manual workers	-	-	-	-	-	-
<b>Total</b>	<b>216</b>	<b>103</b>	<b>319</b>	<b>194</b>	<b>93</b>	<b>287</b>

**PROTECTED CATEGORIES**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	-	-	-	-	-	-
Middle managers	1	-	1	1	-	1
Office workers	16	4	20	13	3	16
Manual workers	-	-	-	-	-	-
<b>Total</b>	<b>17</b>	<b>4</b>	<b>21</b>	<b>14</b>	<b>3</b>	<b>17</b>

**INJURIES AND OCCUPATIONAL DISEASES**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Occupational diseases	-	-	-	-	-	-
Injuries	3	3	6	2	2	4
<i>of which fatal</i>	-	-	-	-	-	-

**TYPE OF GROUP PERSONNEL INJURIES BY GENDER**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Injuries in the workplace	2	2	4	2	-	2
Travel injuries	1	1	2	-	2	2

**HEALTH AND SAFETY INDICATORS**

	2015			2016		
	Men	Women	Total	Men	Women	Total
Severity Rate	0.09	0.49	0.22	0.11	0.13	0.12
Rate of occupational disease	-	-	-	-	-	-
Absentee rate	3.36	4.77	3.81	3.77	7.68	5.03
Injury rate	7.93	18.04	11.02	5.96	13.80	8.32

**DAYS OF ABSENCE**

NO. OF DAYS	2015			2016		
	Men	Women	Total	Men	Women	Total
Absences	1,651	1,102	2,753	1,704	1,666	3,370
Lost day	35	91	126	41	22	63

**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE RANGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015				AS AT 31 DECEMBER 2016			
	<30	30-50	>50	Total	<30	30-50	>50	Total
Executives	-	10	19	29	-	10	14	24
Middle managers	-	26	6	32	-	19	11	30
Office workers	14	209	35	258	8	180	45	233
Manual workers	-	-	-	-	-	-	-	-
<b>Total</b>	<b>14</b>	<b>245</b>	<b>60</b>	<b>319</b>	<b>8</b>	<b>209</b>	<b>70</b>	<b>287</b>

**INCOMING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	1	3	-	4	1.85%	2	3	1	6	3.09%
Women	-	4	-	4	3.88%	-	-	1	1	1.08%
<b>Total</b>	<b>1</b>	<b>7</b>	<b>-</b>	<b>8</b>	<b>2.51%</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>7</b>	<b>2.44%</b>

**OUTGOING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	1	7	1	9	4.17%	4	17	9	30	15.46%
Women	1	6	-	7	6.80%	-	8	1	9	9.68%
<b>Total</b>	<b>2</b>	<b>13</b>	<b>1</b>	<b>16</b>	<b>5.02%</b>	<b>4</b>	<b>25</b>	<b>10</b>	<b>39</b>	<b>13.59%</b>

**THE RATIO OF THE BASIC SALARIES OF WOMEN AND MEN IN THE GROUP BY PROFESSIONAL CATEGORY**

AVERAGE BASIC SALARY	2015		2016	
	Women/men ratio		Women/men ratio	
Executives	1.04		0.87	
Middle managers	0.90		0.96	
Office workers	1.12		1.19	
Manual workers	-		-	
<b>Total</b>	<b>1.00</b>		<b>0.95</b>	

**TRAINING HOURS**

NO. OF HOURS	2015		2016	
	Number of hours	Hours per capita	Number of hours	Hours per capita
<b>Total</b>	<b>3,998</b>	<b>13</b>	<b>4,504</b>	<b>16</b>

## ENGINEERING SECTOR – RESPECT FOR THE ENVIRONMENT

### MAIN GOODS CATEGORIES PURCHASED IN 2016

ENGINEERING SECTOR	%
Raw materials	8%
Engineering consultancy services	37%
Other consultancy services	8%
Other costs	46%

### ENERGY CONSUMPTION

SOURCE OF CONSUMPTION	YEAR 2015	YEAR 2016
	Total	Total
Natural gas (m <sup>3</sup> /000)	11	12
Automotive diesel (l/000)	341	269
Electricity (kWh/000)	1,029	956
<i>of which purchased</i>	1,029	956

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 2**

	2015	2016
<b>Total</b>	<b>333</b>	<b>310</b>

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 1**

SOURCE	2015	2016
Natural Gas	22	24
Automotive diesel	900	711
<b>Total</b>	<b>922</b>	<b>735</b>

**WATER CONSUMPTION (m<sup>3</sup>)**

	2015	2016
	Volume	Volume
Taken from mains water	2,814	2,274
Taken from rivers	-	-
Taken from groundwater	-	-
<b>Total water</b>	<b>2,814</b>	<b>2,274</b>

**WASTE DISPOSAL METHOD**

DISPOSAL METHOD	2015				2016			
	Hazardous	Non-hazardous	Total	% Total	Hazardous	Non-hazardous	Total	% Total
Re-use [t]	-	-	-	-	-	-	-	-
Recycling [t]	-	-	-	-	-	-	-	-
Energy recovery [t]	-	-	-	-	-	-	-	-
Incineration [t]	-	-	-	-	-	-	-	-
Landfill [t]	1	0.4	1	2%	1	29	30	59%
Other [t]	-	64	64	98%	-	21	21	41%
<b>Total</b>	<b>1</b>	<b>64</b>	<b>65</b>	<b>100%</b>	<b>1</b>	<b>50</b>	<b>51</b>	<b>100%</b>

**IMPACT OF TRANSPORT**

SOURCE OF ENVIRONMENTAL IMPACT	2015		2016	
	Units	Consumption	Units	Consumption
Fuel consumption	Litres	340,837	Litres	269,297

## TECHNOLOGY SECTOR – COMMITMENT TO OUR EMPLOYEES

### BREAKDOWN OF PERSONNEL BY CONTRACT TYPE (TEMPORARY VS. PERMANENT) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Temporary	46	1	47	26	3	29
Permanent	310	70	380	348	50	398
<b>Total</b>	<b>356</b>	<b>71</b>	<b>427</b>	<b>374</b>	<b>53</b>	<b>427</b>

### BREAKDOWN OF PERSONNEL BY EMPLOYMENT TYPE (FULL TIME VS. PART TIME) AND GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Full time	308	66	374	346	47	393
Part time	2	4	6	2	3	5
<b>Total</b>	<b>310</b>	<b>70</b>	<b>380</b>	<b>348</b>	<b>50</b>	<b>398</b>

### PERSONNEL AND EXTERNAL CONTRACT WORKERS BY GENDER

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Employees	356	71	427	374	53	427
Other contract workers	15	1	16	6	-	6
<b>Total</b>	<b>371</b>	<b>72</b>	<b>443</b>	<b>380</b>	<b>53</b>	<b>433</b>



**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	11	5	16	14	4	18
Middle managers	13	3	16	17	3	20
Office workers	232	63	295	227	46	273
Manual workers	100	-	100	116	-	116
<b>Total</b>	<b>356</b>	<b>71</b>	<b>427</b>	<b>374</b>	<b>53</b>	<b>427</b>

**PROTECTED CATEGORIES**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015			AS AT 31 DECEMBER 2016		
	Men	Women	Total	Men	Women	Total
Executives	-	-	-	-	-	-
Middle managers	5	3	8	5	3	8
Office workers	5	4	9	5	3	8
Manual workers	3	-	3	5	-	5
<b>Total</b>	<b>13</b>	<b>7</b>	<b>20</b>	<b>15</b>	<b>6</b>	<b>21</b>

**INJURIES AND OCCUPATIONAL DISEASES**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Occupational diseases	-	-	-	-	-	-
Injuries	2	1	3	7	-	7
<i>of which fatal</i>	-	-	-	-	-	-

**TYPE OF GROUP PERSONNEL INJURIES BY GENDER**

NO. OF CASES	2015			2016		
	Men	Women	Total	Men	Women	Total
Injuries in the workplace	2	-	2	5	-	5
Travel injuries	-	1	1	2	-	2

**HEALTH AND SAFETY INDICATORS**

	2015			2016		
	Men	Women	Total	Men	Women	Total
Severity Rate	0.17	0.06	0.15	0.38	-	0.33
Rate of occupational disease	-	-	-	-	-	-
Absentee rate	1.92	3.74	2.23	2.24	2.73	2.30
Injury rate	3.21	8.51	4.05	10.41	-	9.24

**DAYS OF ABSENCE**

NO. OF DAYS	2015			2016		
	Men	Women	Total	Men	Women	Total
Absences	1,436	585	2,021	1,797	301	2,097
Lost day	104	7	111	245	-	245

**GROUP PERSONNEL BY PROFESSIONAL CATEGORY AND AGE RANGE**

NO. OF PEOPLE	AS AT 31 DECEMBER 2015				AS AT 31 DECEMBER 2016			
	<30	30-50	>50	Total	<30	30-50	>50	Total
Executives	-	10	6	16	-	9	9	18
Middle managers	-	7	9	16	-	8	12	20
Office workers	22	209	64	295	19	195	59	273
Manual workers	16	71	13	100	15	83	18	116
<b>Total</b>	<b>38</b>	<b>297</b>	<b>92</b>	<b>427</b>	<b>34</b>	<b>295</b>	<b>98</b>	<b>427</b>

**INCOMING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	9	37	6	52	14.61%	5	40	18	63	16.84%
Women	1	2	1	4	5.63%	1	2	-	3	5.66%
<b>Total</b>	<b>10</b>	<b>39</b>	<b>7</b>	<b>56</b>	<b>13.11%</b>	<b>6</b>	<b>42</b>	<b>18</b>	<b>66</b>	<b>15.46%</b>

**OUTGOING**

NO. OF PEOPLE	2015					2016				
	<30	30-50	>50	Total	% Turnover	<30	30-50	>50	Total	% Turnover
Men	5	18	8	31	8.71%	4	29	11	44	11.76%
Women	1	5	16	22	30.99%	-	2	1	3	5.66%
<b>Total</b>	<b>6</b>	<b>23</b>	<b>24</b>	<b>53</b>	<b>12.41%</b>	<b>4</b>	<b>31</b>	<b>12</b>	<b>47</b>	<b>11.01%</b>

**THE RATIO OF THE BASIC SALARIES OF WOMEN AND MEN IN THE GROUP BY PROFESSIONAL CATEGORY**

AVERAGE BASIC SALARY	2015		2016	
	Women/men ratio		Women/men ratio	
Executives	0.59		0.53	
Middle managers	1.09		1.00	
Office workers	0.92		0.86	
Manual workers	-		-	
<b>Total</b>	<b>0.91</b>		<b>0.84</b>	

**TRAINING HOURS**

NO. OF HOURS	2015		2016	
	Number of hours	Hours per capita	Number of hours	Hours per capita
<b>Total</b>	<b>5,409</b>	<b>13</b>	<b>5,687</b>	<b>13</b>

## TECHNOLOGY SECTOR AND OTHER – RESPECT FOR THE ENVIRONMENT

### MAIN GOODS CATEGORIES PURCHASED IN 2016

TECHNOLOGY SECTOR	%
Road barriers	4%
Electrical systems	85%
Petroleum products	10%
Paper and stationery	1%

### ENERGY CONSUMPTION

SOURCE OF CONSUMPTION	2015	2016
	Total	Total
Natural gas (m <sup>3</sup> /000)	16	169
Automotive diesel (l/000)	766	786
Electricity (kWh/000)	507	583
<i>of which purchased</i>	507	583

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 2**

	2015	2016
<b>Total</b>	<b>164</b>	<b>189</b>

**CO<sub>2</sub> EMISSIONS [T CO<sub>2</sub>] - SCOPE 1**

SOURCE	2015	2016
Natural Gas	32	33
Automotive diesel	2,023	2,077
<b>Total</b>	<b>2,055</b>	<b>2,110</b>

**WATER EXTRACTION [m<sup>3</sup>]**

	2015	2016
	Total	Total
Taken from mains water	712	279
Taken from rivers	-	-
Taken from groundwater	-	-
<b>Total water</b>	<b>712</b>	<b>279</b>

**WASTE DISPOSAL METHOD**

DISPOSAL METHOD	2015				2016			
	Hazardous	Non-hazardous	Total	% Total	Hazardous	Non-hazardous	Total	% Total
Re-use [t]	-	-	-	-	-	-	-	-
Recycling [t]	14	28	41	82%	1	51	62	94%
Energy recovery [t]	-	-	-	-	-	-	-	-
Incineration [t]	0.28	-	0.28	1%	0.13	-	0.13	-
Landfill [t]	-	2	2	4%	-	4	4	6%
Other [t]	7	-	7	13%	-	-	-	-
<b>Total</b>	<b>21</b>	<b>30</b>	<b>50</b>	<b>100%</b>	<b>11</b>	<b>55</b>	<b>66</b>	<b>100%</b>

**IMPACT OF TRANSPORT**

SOURCE OF ENVIRONMENTAL IMPACT	2015		2016	
	Units	Consumption	Units	Consumption
Fuel consumption	litres	763,257	litres	740,162

## ANALYSIS OF THE SCOPE OF THE MATERIAL TOPICS FOR THE ASTM GROUP AND RECONCILIATION WITH THE CORRESPONDING GRI ASPECTS

MATERIAL TOPICS	MATERIALITY SCOPE		MATERIAL ASPECTS GRI G4
	Internal	External	
Road safety	ASTM Group	Customers, suppliers, business partners and contractors, regulatory bodies, institutions and government agencies, local communities	Customer health and safety
Occupational health and safety	ASTM Group	Employees, suppliers, business partners and contractors	Occupational health and safety
Management of social and environmental risks	ASTM Group	Suppliers, business partners and contractors	n.a
Anti-corruption	ASTM Group	Suppliers, business partners and contractors, regulatory bodies, institutions and government agencies	Anti-corruption
Management of land (contamination and regeneration)	ASTM Group	Regulatory bodies, institutions and government agencies	Soil degradation, contamination and remediation
Economic and financial sustainability	ASTM Group		Economic performance
Impacts on the landscape	ASTM Group		Environmental compliance Mechanisms for handling environmental complaints
Equal opportunities and working conditions	ASTM Group	Suppliers, business partners and contractors, and trade unions	Diversity and equal opportunity Pay equality between men and women Employment Labour relations
Transparent governance	ASTM Group		n.a
Management of traffic and emergencies	ASTM Group	Regulatory bodies, institutions and government agencies	n.a

For the topics that are also material outside the organisation, the reporting the data and information only covers the Group's activities.



MATERIAL TOPICS	MATERIALITY SCOPE		MATERIAL ASPECTS GRI G4
	Internal	External	
Use of materials	ASTM Group	Suppliers, business partners and contractors	Materials Procurement practices
Noise pollution	ASTM Group		Transport
Management of the relationship with the local area and local communities	ASTM Group	Local Community	Indirect economic impacts Local communities
Impacts of new technology	ASTM Group	Universities and research centres	n.a
Efficient use of natural resources	ASTM Group	Suppliers, business partners and contractors	Energy Water Effluents and waste
Local employment	ASTM Group	Government agencies	Market presence
Energy consumption and GHG emissions	ASTM Group	Suppliers, business partners and contractors	Energy Emissions
Access to services and customer satisfaction	ASTM Group		Product and service labeling
Child labour and human rights	ASTM Group	Suppliers, business partners and contractors	Investments Non-discrimination Child labour Forced and Compulsory Labor
Service quality improvement and price changes	ASTM Group	Regulatory bodies, institutions and government agencies, consumer associations	n.a
Supplier assessment procedures	ASTM Group		Supplier assessment based on environmental criteria Supplier assessment based on work practices
Transport	ASTM Group	Suppliers, business partners and contractors	Transport
Employee development and training	ASTM Group		Education and training
Customer data privacy	ASTM Group		Customer data privacy





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# GRI Content Index



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G4-DMA	Generic disclosures on management approach	67-69	
G4 - LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	The minimum allowed notice period for advising workers and their representatives of significant organisational changes is set in accordance with the national collective agreement	
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G4-DMA	Generic disclosures on management approach	70;137-139	
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G4-DMA	Generic disclosures on management approach	57-59;140	



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<b>Specific standard disclosure</b>			
G4 - LA9	Average hours of training per year per employee by gender, and by employee category	57;162;170;178;186	Information not available in structured form for all subdivisions required. The data collection process is under development.
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G4-DMA	generic disclosures on management approach	65-66	
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G4 - LA14	Percentage of new suppliers that were screened using labor practices criteria	92-95	
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