2023 SUSTAINABILITY REPORT

Associazione Italiana
Società Concessionarie
Autostrade e Trafori

INTRODUCTION

AISCAT presents the fifth edition of its Annual Sustainability Report, a document that expresses the unique and shared vision of the value that sustainable mobility represents for the Italian motorway sector. The report illustrates the sector's aggregate data related to the concept of sustainability in its various aspects: traffic and workers' safety, adequate levels-of-service, infrastructure safeguard, socio-economic impact, technological innovation, environmental compatibility, and efficient development models.

This document is the result of the analysis and extensive work carried out by the AISCAT's Sustainable Mobility Working Group, made up by experts on the subject representing all AISCAT member concessionaires. Notably, the Group's activities have significantly evolved throughout 2024, with the creation of a specific task force dedicated to the complex issue of the European Taxonomy, closely tied to the subject of sustainability, as well as the establishment of the AISCAT Sustainability Technical Committee. The governance evolution within AISCAT highlights the increasing importance of sustainability in the medium to long term strategy of the sector.

Furthermore, Sustainability Regulation has evolved with the introduction of CSRD on Sustainability Reporting, which has been transposed into Legislative Decree No. 125 of September 6, 2024, extending sustainability reporting duties to some concessionaries starting with the 2024 financial reporting.

Infrastructures managed by AISCAT member concessionaires are not mere thoroughfares; they represent a crucial point for the country's integrated and sustainable transportation, with the aim of guaranteeing and improving levels-of-service for the millions of users who travel on motorways each year. On these basis, AISCAT 2024 Sustainability Report provides a representation of the members' environmental and social performance, covering the year ended 12/31/2023. Specifically, it refers to a 5,800 km motorway network–including ASTM Group, which has recently rejoined the Association–whit a recorded traffic in the reporting year of 82.7 billion vehicle-kilometers, 75% of which from light vehicles and 25% from heavy vehicles.

The Annual Report thus offers a comprehensive overview of the Italian motorway sector's journey toward sustainable mobility, highlighting the concrete actions taken to contribute to climate change mitigation. These initiatives have the aim of both reducing the concessionaires' carbon footprint and promoting more sustainable, low-emission mobility, driven by innovation, digitalization, and R&D. Motorways, therefore, not only are vital arteries for people and goods' flow but also serve as examples of innovation and sustainability. Furthermore, striving for high safety standards for both users and workers remains a sector's priority, and the Report outlines the best practices adopted by concessionaires in this regard.

Through projects aimed at enhancing the workforce, including corporate welfare initiatives, training, employee wellness, inclusion, diversity, and gender equality, the sector shows its strong commitment to empowering its employees.

The AISCAT Report ultimately highlights how the daily work of the concessionaires represents a fundamental value for the country, a strategic asset for resilience, modernization, economic growth, and the social well-being of Italy. Finally, it is a valuable heritage of people, knowledge, and values that serves the entire community.

This is the sector's unified vision on Sustainability, which each concessionaire applies as best as they can according to their own specificities and characteristics, and on this shared vision we will work together in the coming years.

dr. ing. **Roberto Tomasi**
(Vicepresidente AISCAT)

avv. **Marco Monaco**
(Vicepresidente AISCAT)

dr. ing. **Umberto Tosoni**
(Vicepresidente AISCAT)

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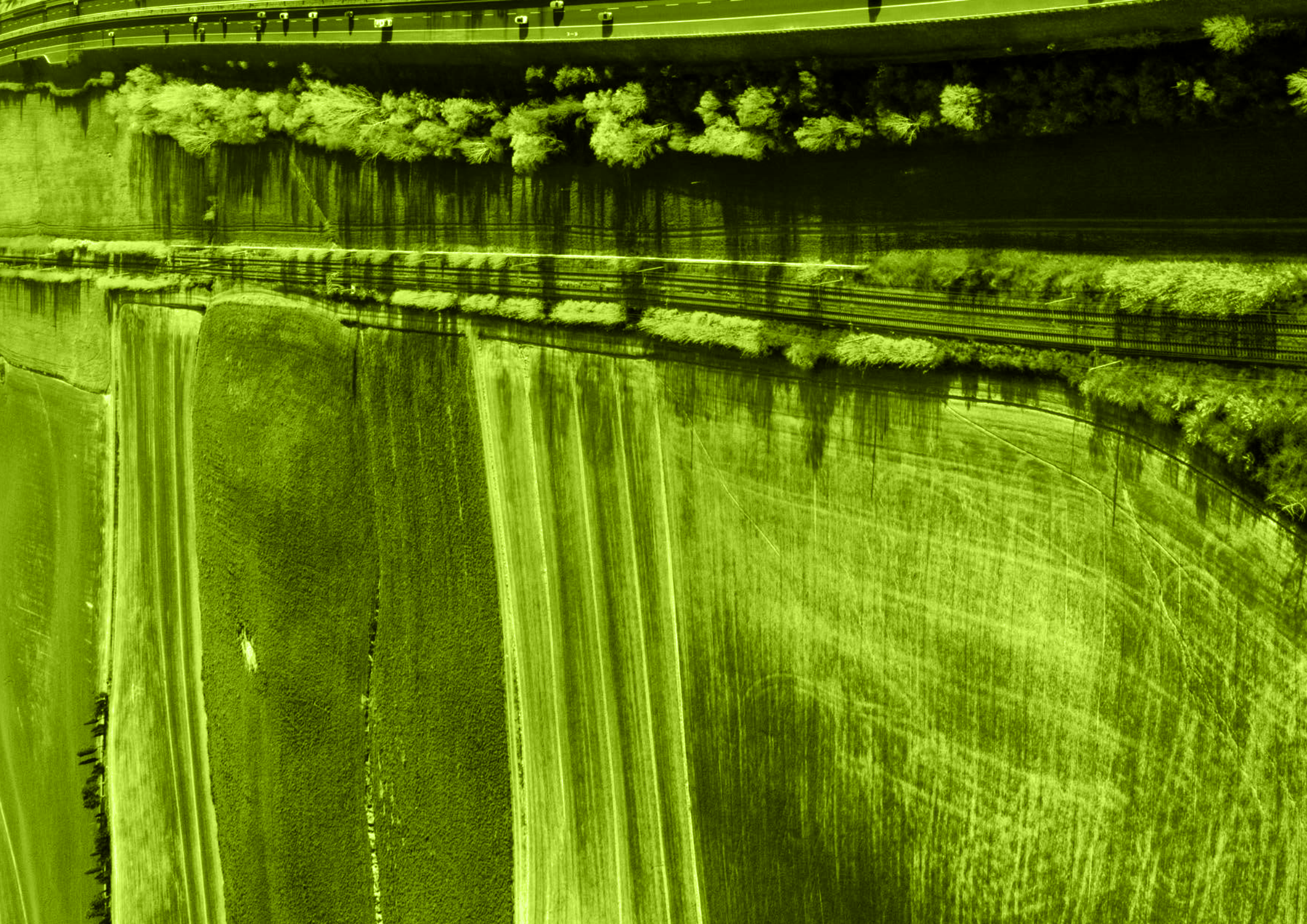
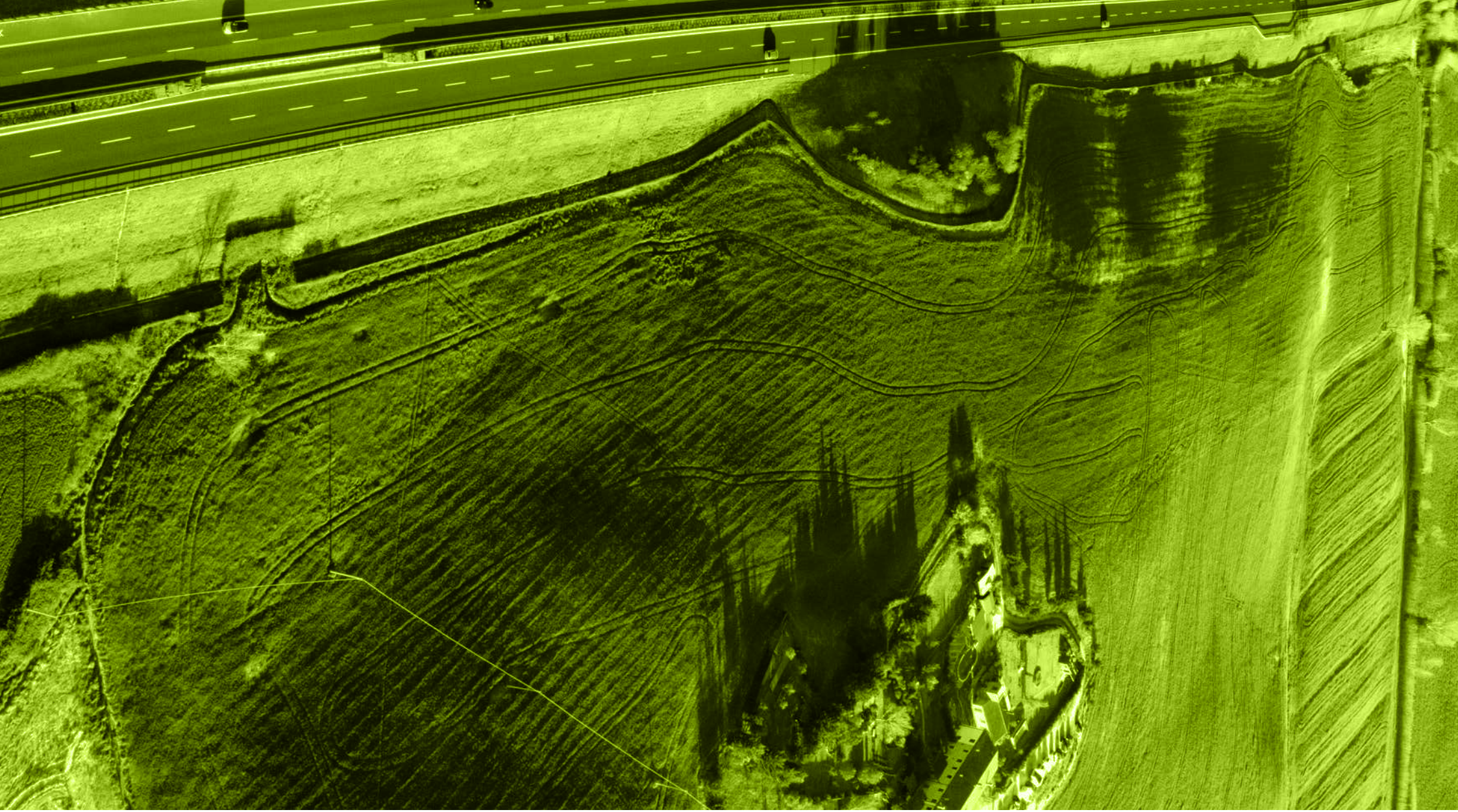




AISCAT MEMBERS

FULL MEMBERTS

AUTOSTRADE PER L'ITALIA S.p.A.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

AUTOSTRADE ALTO ADRIATICO S.p.A.

AUTOSTRADA BRESCIA VERONA VICENZA PADOVA S.p.A

AUTOSTRADA DEL BRENNERO S.p.A.

SOCIETÀ AUTOSTRADA TIRRENICA S.p.A.

TANGENZIALE DI NAPOLI S.p.A.

CONSORZIO PER LE AUTOSTRADE SICILIANE

SOCIETÀ ITALIANA PER AZIONI PER IL TRAFORO DEL MONTE BIANCO

SOCIETÀ ITALIANA TRAFORO
AUTOSTRADALE DEL FREJUS (S.I.T.A.F.)

RACCORDO AUTOSTRADALE
VALLE D'AOSTA S.p.A. (R.A.V.)

SOCIETÀ ITALIANA TRAFORO
GRAN SAN BERNARDO S.p.A.

CAV – CONCESSIONI AUTOSTRADALI
VENETE S.p.A.

AUTOSTRADA PEDEMONTANA
LOMBARDA S.p.A.

SOCIETÀ DI PROGETTO BREBEMI S.p.A.

SUPERSTRADA PEDEMONTANA
VENETA S.p.A.

ASSOCIATE MEMBERS

AUTOMOBILE CLUB D'ITALIA

AUTOGRILL ITALIA S.p.A.

TAMOIL ITALIA S.p.A.

CHEF EXPRESS S.p.A.

ECOGEST S.p.A.

PREALUX S.r.l.

CHAPTER 1

L'AISCAT

1.1 • WHO WE ARE AND WHAT WE DO

AISCAT is the Association of Motorway and Tunnel Concessionary Companies in Italy, which has been active for more than 60 years, having been founded in 1966 to act as a catalyst for the interests of the entire national motorway sector.

The Association, through its Technical Committees and Task Forces, composed of experts specialised in various fields, analyses infrastructural, management, legal and administrative issues of relevance to the Members. In this context, the activities of AISCAT and its Technical Committees pay special attention to environmental and social aspects, as well as to the need for continuous technological innovation in the motorway sector.

The principal role of AISCAT is to bring together and share the activities of Members, supporting the expansion, consolidation and modernisation of the infrastructural network, as well as promoting sustainable mobility.

The Association also promotes the harmonisation and uniformity of procedures, with a specific focus on service operating methods and user relations. It also provides assistance to its Members by representing them before leading political and administrative institutions on a national, European and international level, assisting them in actions to protect their interests and rights, conducting studies and research, as well as organising conferences and meetings on topics of common interest to the sector.

As of 31/12/2023, AISCAT Members - including the ASTM group - manage a total of 5,800 km of motorway network under concession, representing 94.6% of the toll motorway network and 82.0% of the total Italian motorway network.

DATA AS OF 31/12/2023

Motorway network under concession to AISCAT Members (including SITAF*)	Km 4,597.1 (65.0% of the total motorway network)
Motorway network under concession to the ASTM group (excluding SITAF*)	Km 1,202.9 (17.0% of the total motorway network)
Motorway network under concession to non-AI-SCAT members:	Km 333.0 (4.7% of the total motorway network)
Motorway network managed by ANAS	Km 939.3 (13.3% of the entire motorway network)
Rete in esercizio totale	Km 7,072.3

*The company SITAF (Società Italiana Traforo Autostradale del Frejus S.p.A.) is part of the ASTM group but remained associated with AISCAT even after the group left the association in 2018.

Source: AISCAT informazioni semestrali 1-2/2023 p. 4-5

AISCAT is a member of ASECAP (*Association européenne des sociétés concessionnaires d'autoroutes et d'ouvrages à péage*) the European Association of Operators of Toll Road Infrastructures, based in Brussels.

ASECAP FULL MEMBERS AS AT 31/12/2023 (KM)

France	9,328.1
Italy (AISCAT)	4,597.1
Portugal	2,904.8
Austria	2,249.0
Greece	2,159.3
Hungary	2,159.3
Croatia	1,341.1
Spain	1,334.9
Serbia	999.5
Slovenia	624.9
Poland	468.0
Ireland	325.9
Turkey	156.1
Denmark	43.0
Netherlands	24.0
TOTAL	**27,913.7**

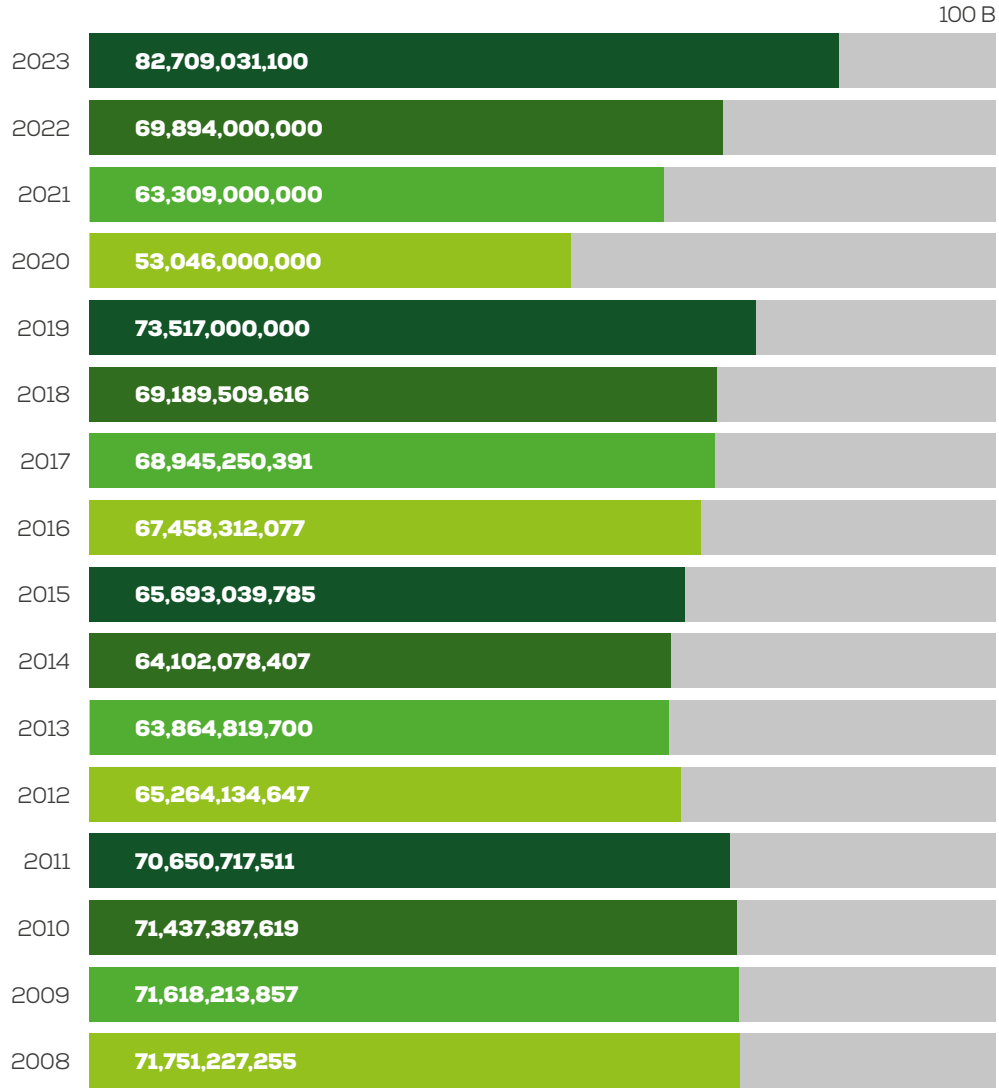
Source: ASECAP Statistical Bullettin 2023, p. 10

TRAFFIC IN THE AISCAT NETWORK • TRAFFIC AND TRANSACTIONS

INDICATOR	UNITS OF MEASUREMENT	2021	2022	2023
Total traffic	vehicles * km (millions)	63,309	68,181	82,709
Heavy vehicle traffic	vehicles * km (millions)	16,825	17,124	20,428
Light vehicle traffic	vehicles * km (millions)	46,484	51,057	62,281
Number of transactions	no.	1,137,692,161	1,156,573,164	1,502,563,926
Electronic toll payments	no.	737,409,643	737,161,046	1,001,695,848
Automatic toll payments	no.	295,594,035	324,661,813	396,698,887
Manned toll payments	no.	104,688,483	94,750,304	104,169,191

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

In 2023, vehicles travelled a total of 82,709 million km on the motorway network operated by AISCAT Members, including the ASTM group, of which 75.3% was traffic from light vehicles (62,281 million km) and 24.7% was traffic from heavy vehicles (20,428 million km). By comparing the figure to the extension of the motorway network, it can be observed that, in 2023, for each km granted to AISCAT Members - also considering the ASTM group - 14.95 million vehicles passed through the motorway network, an increase compared to the 14.50 million in 2022.



Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.
Source: ASECAP Statistical Bullettin 2023, p. 10

The percentage of the more than 1.5 billion transactions by users in 2023 that took place via electronic toll collection is almost 67%, up from the corresponding shares in 2022 (64%) and 2021 (65%). In addition, both the proportion of transactions carried out with an automated till (26.4%, compared to 28.07% in 2022) and the proportion of transactions carried out with a manual till (6.93%, compared to 12.85% in 2022) decreased in 2023.

As recent studies show, the use of electronic toll collection generates significant environmental benefits, thanks to lower CO_2 emissions and other pollutants. For example, a study by Ca' Foscari University showed that, thanks to electronic toll collection, over 72 thousand tonnes of CO_2 were saved in 2023 alone[1].

INFRASTRUCTURAL CAPITAL

The infrastructural capital of AISCAT Members also includes a rich architectural heritage (bridges, viaducts and tunnels), linked to the geomorphologic complexity of our Country and, in many cases, a symbol of national culture and engineering skill. Consider that the Alps and the Apennines occupy about 35% of the national surface area, while the percentage of mountainous territory at European level is much lower (about 20%). Geomorphologic data help us to better understand the complexity and particular features of the AISCAT network, characterised, among other things, by the presence of three international tunnels (two, Frejus and Mont Blanc, connecting with France and one, Gran San Bernardo, connecting with Switzerland) which extend for a total of over 30 km, half of which fall under the jurisdiction of Italian AISCAT Member companies. In addition to these elements that testify to the complexity and articulation of the network, the infrastructural capital of Members also includes considerable technological and plant engineering equipment. The table below provides a more detailed illustration of the infrastructures. Note that only architectural road structures longer than 100 metres are represented. If all structures were considered, the number would be significantly higher.

INFRASTRUCTURAL CAPITAL

INDICATOR	UNITS OF MEASUREMENT	2021	2022	2023
Architectural road structures (bridges, flyovers and tunnels)	no.	1,864	1,647	2,376
Variable Message Signs	no.	3,240	3,173	3,491
% of the network covered by safety tutors	%	34.9%	35.2%	37.7%
Noise barriers	km	774	778	883
Road cameras	no.	7,751	10,538	12,393
Emergency areas	no.	6,890	6,904	8,000
SOS emergency call points	no.	6,525	6,525	7,715
Parking areas	no.	214	275	304
Service areas	no.	320	324	373
Toll stations (manual payment entry lanes)	no.	199	189	142

Segue ›

[1] https://www.telepass.com/it/gruppo/news-eventi/72-mila-tonnellate-meno-co2-telepedaggio-telepass-2023

INFRASTRUCTURAL CAPITAL • seguito

INDICATOR	UNITS OF MEASUREMENT	2021	2022	2023
Toll stations (electronic payment entry lanes)	no.	887	921	1,041
Toll stations (no-payment exit lanes)	no.	1,284	1,377	1,487
Toll stations (electronic payment exit lanes)	no.	882	968	1,163
Weather stations	no.	534	518	607
Ice detectors	no.	347	361	402
Fog detectors	no.	118	226	316
Photovoltaic systems	no.	190	283	202

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

When AISCAT was created in 1966, the Italian motorway network and the concession system were undergoing full and rapid evolution, and this reality presented the concessionaire companies with new and common problems.

This situation and the consequent need for a unified approach to the diverse elements, to standardise construction, operation and management systems, to provide the concessionaires with the technical support of studies and research of general interest, to assist them both in their mutual relations and in those with

the concession granting Body, with the lenders and with all the Bodies directly or indirectly involved, brought about the need for the establishment of the Italian Association of Motorway and Tunnel Concessionary Companies.

AISCAT has therefore been and still is interested in the problems concerning the planning, design, construction, operation, maintenance and management of motorways and tunnels. In addition, it carries out research and studies in the field of safety, planning and transport economics, with the main aim of being able to contribute to raising the level of service provided to users, and to represent the sector on every useful occasion.

Thanks to its many years of experience, AISCAT and its Members continue to play a crucial role as a driving force for the competitiveness of the country, addressing the challenges related to transport supply and the demand for sustainable mobility in an integrated context.

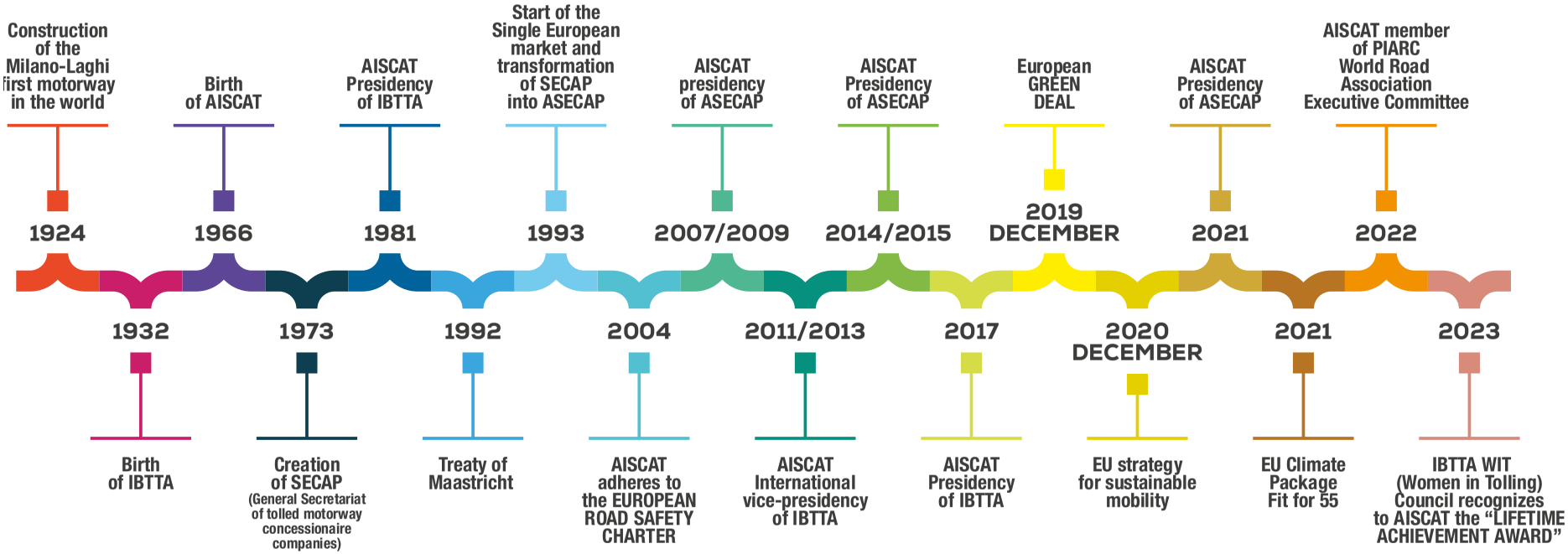
In this perspective, AISCAT endorses the modernisation of the national infrastructure network and promotes transport efficiency and sustainability, which are at the heart of national and European policies. The Association considers the knowledge, experience, and skills contributed by the concession motorway sector to be essential. With its historical background and the technical-management expertise cultivated over several years, this sector can provide significant value in terms of bankability, as well as the construction and management of sustainable road infrastructures.

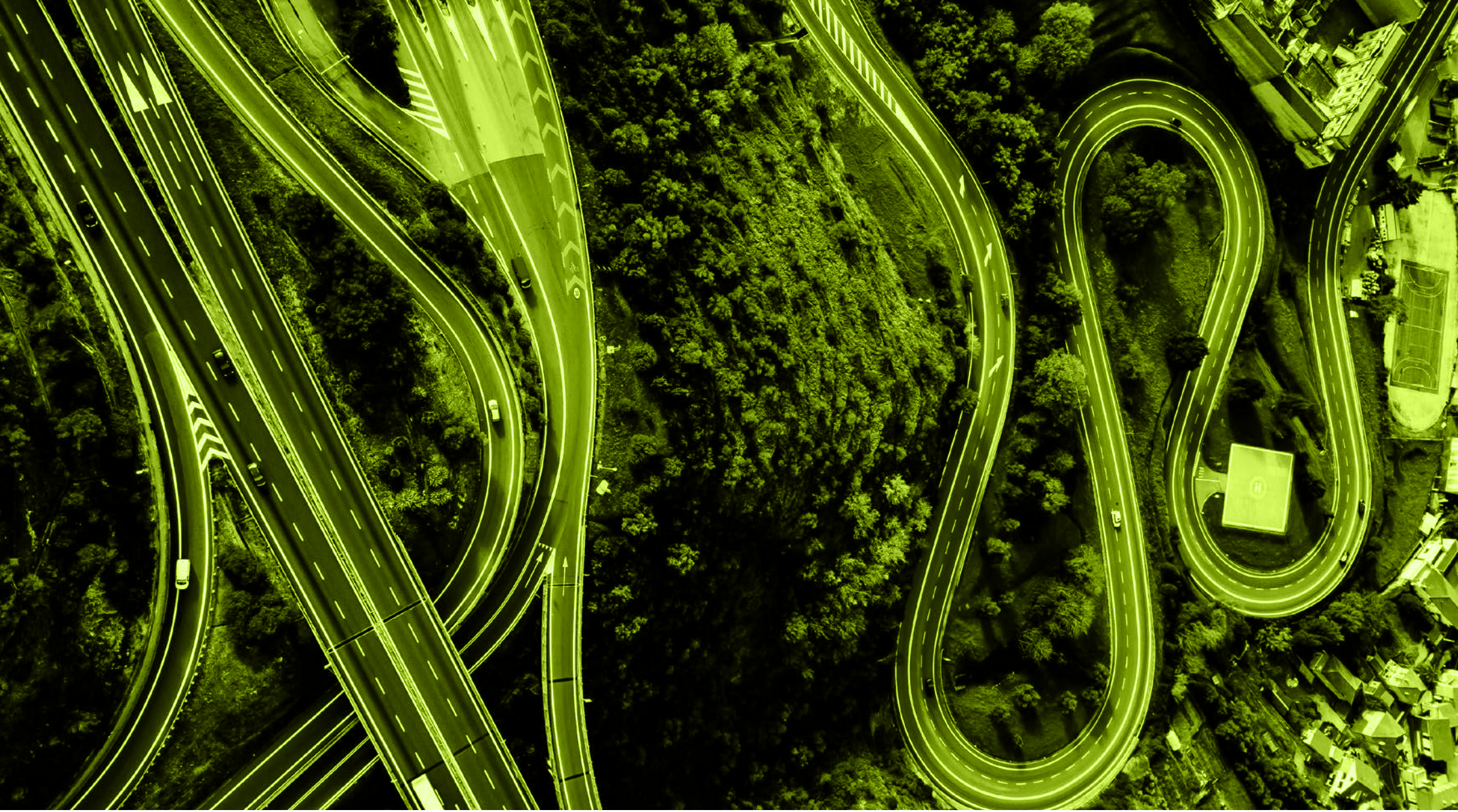
1.3 • HISTORY

The Motorway, as an infrastructure, originated in Italy in the early 1920s with the construction of the world's first road dedicated exclusively to motorised traffic. The development of motorways has been integral to Italy's twentieth-century history: the growth of this network has bolstered the urbanisation and industrialisation processes, improving citizens' lifestyles and enhancing national prosperity. Within the context of this rapid evolution, which particularly characterised the 1960s and which led to Italy having the most extensive motorway network in Europe at that time, concessionaires had to tackle new problems of a technical-managerial and legal-administrative nature, realising how important it was to provide uniform responses at the sector level.

The need to share experiences and problems, to standardise construction, management and operational systems, as well as to dialogue in a unified manner with the concession granting body and national institutions, prompted the creation in January 1966 of a single aggregation and representative body for the toll motorway sector. This body, AISCAT, started operating immediately at a national level, but thanks to the foresight of its founders, it soon expanded to a supranational context. This expansion was a response to the Members' increasing need to continuously address developments in other Countries.

This innovative approach, extending beyond strictly national borders, led AISCAT to join leading international organisations and associations, public and private, active in the motorway and general transport sector. AISCAT soon joined IBTTA (International Bridge, Tunnel and Turnpike Association), which represents the global toll industry, and then ASECAP (*Association européenne des sociétés concessionnaires d'autoroutes et d'ouvrages à péage*), the European Association of Operators of Toll Road Infrastructures based in Brussels, and finally to PIARC (*Association Mondiale de la Route/ World Road Association*), the World Road Association that brings together public and private operators and promotes specific studies on road safety, infrastructure financing, application of technology to road transport and sustainability.


1924
Construction of the Milano-Laghi first motorway in the world
1932
Birth of IBTTA
1966
Birth of AISCAT
1973
Creation of SECAP
(General Secretariat of tolled motorway concessionaire companies)
1981
AISCAT Presidency of IBTTA
1992
Treaty of Maastricht
1993
Start of the Single European market and transformation of SECAP into ASECAP
2004
AISCAT adheres to the EUROPEAN ROAD SAFETY CHARTER
2007/2009
AISCAT presidency of ASECAP
2011/2013
AISCAT International vice-presidency of IBTTA
2014/2015
AISCAT Presidency of ASECAP
2017
AISCAT Presidency of IBTTA
2019 DECEMBER
European GREEN DEAL
2020 DECEMBER
EU strategy for sustainable mobility
2021
AISCAT Presidency of ASECAP
2021
EU Climate Package Fit for 55
2022
AISCAT member of PIARC World Road Association Executive Committee
2023
IBTTA WIT (Women in Tolling) Council recognizes to AISCAT the "LIFETIME ACHIEVEMENT AWARD"



CHAPTER 2 | THE ENVIRONMENT

2.1 • ENVIRONMENTAL IMPACTS

The analysis of the current environmental report first of all requires the identification of three fundamental aspects in the activity of the motorway concessionaire: the design of new works, their construction and, finally, their operational management.

ENVIRONMENTAL IMPACTS DURING THE CONSTRUCTION AND OPERATION PHASES OF THE INFRASTRUCTURE.

	CONSTRUCTION	EXERCISE
Air	*	**
Water	*	**
Soil	**	*
Noise	*	**
Fauna	*	*
Flora	*	*

With regard to what one might imagine, a large amount of the environmental impacts of both the construction and operation phases are determined by the design of the infrastructure. Consider, for example, land use, impact on the landscape, and the consequences for flora and fauna. Impact mitigation operations carried out on existing works are often impossible to avoid, as they are determined by developments in technological knowledge (e.g., the detectability of a new, previously unknown pollutant) and by sensitivity to certain issues (e.g., landscape impact). However, mitigation carried out on existing works is often more costly and less effective compared to a design that factors in potential problems.

The result is that it is necessary to involve local communities and other relevant stakeholders in the design phase of new projects to ensure efficient work. AISCAT Members dedicate significant resources precisely to the management of this first phase.

2.2 • CO_2 EMISSIONS

When we talk about CO_2 emissions, we are referring to the carbon dioxide released into the atmosphere as a result of the combustion of natural gas, coal and other materials. CO_2 is one of the main greenhouse gases contributing to global warming. It is estimated that over 80% of greenhouse gas emissions from human activities are CO_2. To keep the rise in global temperatures below 1.5°, the safest threshold indicated by scientists and the 2015 Paris Agreement to avoid the worst effects of climate change, net greenhouse gas emissions would have to fall by 43% by 2030 compared to 2010 levels.

According to the European Environment Agency, the transport sector is responsible for about a quarter of the total CO_2 emissions in Europe, 71.7% of which are produced by road transport. The EU aims to achieve a 90% reduction in greenhouse gas emissions from transport by 2050 compared to 1990 levels. This forms part of the efforts to reduce CO_2 emissions and achieve climate neutrality by 2050 as part of the European Green Deal roadmap.

CO_2 emissions are classified into direct (Scope 1) and indirect (Scope 2 and Scope 3) emissions, depending on whether or not they are produced by sources owned or controlled by the reporting organisation.

In 2023, Scope 1 emissions, i.e., those generated directly from sources owned or controlled by AISCAT Members (e.g., for heating offices, operating sites and the use of company vehicles) amounted to 49,214 tCO2eq.

Scope 2 emissions, which result from the production of electricity, steam, heat or cooling purchased by Members from third parties (e.g., electricity for tunnel lighting and ventilation), amounted to 65,181 tCO2eq in 2023.

In 2023, the total Scope 1 and Scope 2 emissions of AISCAT Members was 114,394 tCO2eq. The emission intensity index, calculated on the basis of revenue, showed a significant reduction compared to the previous two-year period (-34.41% compared to 2022; -46.13% compared to 2021).

For 2023, it was also possible to calculate Scope 3 emissions, which amount to 2,333,003 tCO2eq. These emissions include all indirect greenhouse gas emissions generated in the value chain of AISCAT Members (such as emissions along the supply chain).

Thus, in 2023 the total CO_2 emissions (Scope 1 + Scope 2 + Scope 3) of AISCAT Members were 2,447,397 tCO2eq.

THE ENVIRONMENTAL DIMENSION – CO_2 EMISSIONS

INDICATOR	UNIT OF MEASUREMENT	2021	2022	2023
Direct CO_2 emissions - scope 1	tCO2eq	57,387	43,336	49,214
Indirect CO_2 emissions - scope 2	tCO2eq	79,925	73,107	65,181
CO_2 emissions scope 1 + scope 2	**tCO2eq**	**137,312**	**116,444**	**114,394**
Indirect CO_2 emissions - scope 3	tCO2eq			2,333,003
Total CO_2 emissions (scope 1 + scope 2 + scope 3)	**tCO2eq**			**2,447,397**
CO_2 emission intensity by revenue (scope 1 + scope 2)	tCO2eq/€	1,950^10-5	1,601^10-5	1,050^10-5

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

2.3 • ENVIRONMENTAL EXPENDITURE AND INVESTMENTS

In 2023, the amount of environmentally relevant expenditures and investments made by Members amounted to almost € 320 million. Among the various types of investments, more than € 95 million are for water, soil and landscape management, almost € 70 million for environmental remediation, and more than € 56 million for anti-noise measures.

By relating the value of expenditure and investment to the extension of the AISCAT network, it can be seen that in 2023 there was an increase of over 3% compared to 2022.

THE ENVIRONMENTAL DIMENSION - EXPENDITURE AND INVESTMENTS

INDICATOR	UNIT OF MEASUREMENT	2021	2022	2023
Environment-related expenditure and investments	**Euro**	**210,603,198**	**254,412,866**	**314,917,758**
(i) water, soil and landscape	Euro	64,127,395	70,310,766	94,004,104
(ii) waste treatment and management	Euro	15,353,379	18,286,556	29,736,370
(iii) emissions treatment	Euro	11,529,948	504,797	294,948
(iv) noise	Euro	49,031,495	58,974,508	55,998,712
(v) environmental decontamination and remediation	Euro	41,297,507	51,256,761	68,483,474
(vi) energy plants, renewables and energy efficiency works	Euro	3,670,853	6,341,761	8,257,541
(vii) other operating costs (training, consultancy, monitoring, insurance)	Euro	7,272,395	11,009,169	16,518,448
(viii) Environmental Impact Assessments (EIA), specialist environmental studies	Euro	18,320,227	37,728,547	41,624,162
Environmentally relevant expenditure and investments by KM of the AISCAT network	Euro/KM	43,207.44	55,150.09	57,150.75

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

2.4 • ENERGY, WATER AND WASTE CONSUMPTION

The table below provides information on the consumption of petrol, LPG, Gas oil/Diesel, electricity and natural gas/methane by AISCAT concessionaires. It also provides economic quantification of the cost of energy, water consumption and waste produced.

THE ENVIRONMENTAL DIMENSION - ENERGY CONSUMPTION, WATER AND WASTE

INDICATOR	UNIT OF MEASUREMENT	2021	2022	2023
Energy consumption - Petrol	TJ	8.73	13.24	13.59
Petrol energy intensity by Km of the AISCAT network	Tjoule/Km	1.792^10-3	2.871^10-3	2.466^10-3
Energy consumption - LPG	TJ	16.14	13.29	18.85
LPG energy intensity by Km of the AISCAT network	Tjoule/Km	3.310^10-3	2.880^10-3	3.421^10-3
Energy consumption - Gas Oil/Diesel	TJ	441.16	383.52	473.81
Energy intensity Gas Oil/Diesel based on Km of the AISCAT network	Tjoule/Km	9.051^10-2	8.314^10-2	8.599^10-2
Energy consumption - Electricity	TJ	1,208.10	1,324.37	1,516.56
Energy intensity Electricity by KM of the AISCAT network	Tjoule/Km	2.479^10-1	2.871^10-1	2.752^10-1
Energy consumption Natural gas / Methane	TJ	119.66	137.65	110.69
Energy intensity Natural Gas / Methane by Km of the AISCAT network	Tjoule/Km	2.455^10-2	2.984^10-2	2.009^10-2
Cost of energy	Euro	73,720,537	92,309,444	84,754,307
Energy cost vs. revenue	%	0.010	0.013	0.008
Water consumption	l	352,534,095	256,341,412	396,137,511
Water consumption based on Km of the AISCAT network	l/Km	1.027^10-5	7.641^10-6	6.600^10-6
Waste produced	t	27,641	29,089	29,700
of which recycled/recovered	t	18,645	21,896	20,033
Waste produced based on Km of the AISCAT network	t/Km	5.671	6.306	5.390

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

By analysing the data on energy consumption intensity in relation to the extent of the AISCAT network, a significant improvement in the environmental impacts of the Members can be seen. Comparing 2023 with 2022, there is a decrease in the energy intensity of petrol consumption (-14.12%), electricity (-4.13%) and natural gas/methane (-32.68%). In contrast, there is an increase in the energy intensity of LPG consumption (+18.77%).

Water consumption is mainly for the irrigation of the network and for the use of the utilities of the Members. In 2023, the activities of AISCAT Members involved the use of 393 million litres of water. If this figure is compared to the extension of the AISCAT motorway network, it is noted that water consumption is significantly lower than in 2022 (-13.62%).

Finally, in 2023 AISCAT Members produced 29,700 tonnes of waste, of which 67.45% (or 20,033 tonnes) was recycled or recovered. Considering the extension of the AISCAT motorway network, there is a clear improvement compared to 2022: while in 2022, 6.306 tonnes of waste were generated per kilometre of network under concession to AISCAT Members, in 2023 this figure dropped to 5.390 tonnes (-14.52%).

2.5 • MEMBER INITIATIVES

AUTOSTRADE PER L'ITALIA S.p.A.

RENEWABLE ENERGY

On the A1 Milan-Naples motorway south of Rome, at the Valmontone junction, one of the world's first photovoltaic systems mounted on motorway sound-absorbing barriers is nearing completion, in a configuration that optimises acoustic performance with renewable energy production.

The energy generated by the new plant will be able to meet the needs of the Valmontone toll station thanks to the production of about 80MWh per year, equal to the corresponding consumption of more than 20 households, and a CO2 reduction of about 600 tonnes over the plant's lifetime.

The project involves the installation of 2,500m of barriers in the north direction and 1,500m in the south direction, covering more than 20,000m² of surface area and 432 140Wp monocrystalline silicon photovoltaic modules, divided into 72 strings, for the production of renewable energy. The components of the photovoltaic plant are integrated on sound-absorbing barriers that run for approximately 300m, specially designed for the purpose, at a height of between 3.0m and 9.5m above the roadway level. This configuration allows the maximum degree of irradiation, with a 33° inclination with southern exposure, while maintaining a maximum level of safety for users.

From an acoustic point of view, the plan is part of the broader programme to renovate the sound-absorbing barriers in ASPI's network. The aim is to extend this experiment also to other sections of the motorway network.

The plant was built by Autostrade per l'Italia in collaboration with Elgea, a Group company engaged in the development of innovative technological solutions for the production of energy from renewable sources, with the possibility of operating in Europe's largest "open-air" laboratory, i.e., the 3,000 km of the motorway network under concession, with a view to moving towards increasingly sustainable mobility and contributing significantly to the Group's Net Zero objective.

The project is part of the Mercury - Smart Sustainable Mobility programme, which constitutes the unified and coordinated hub for technological innovation, in order to:

- *ensure safer infrastructure;*
- *take a leading role in the sustainable mobility revolution;*

continued ›

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- *actively contribute to national decarbonisation targets and innovation in mobility systems.*

The Programme, which involves the Group's various subsidiaries, contains projects aimed at the production of electricity from renewable sources and the distribution of energy through electric charging stations and alternatives to fossil fuels.

ASTM S.p.A.

ASTM'S COMMITMENT TO MATERIAL REUSE: THE VENTIMIGLIA MOTORWAY BARRIER SUCCESS CASE

To ensure sustainable development, the ASTM Group is committed to maximising the reuse of materials, both during the construction as well as the maintenance phases of infrastructure. More specifically, in order to reduce as much as possible the introduction of natural resources from mining sites into the construction site, ASTM creates new works by reusing the moved soil on which the construction sites themselves stand. Similarly, the Group favours the reuse of recycled aggregates from internal processing or, where not possible, from authorised and certified external plants.

The redevelopment project of the Ventimiglia forecourt and barrier, the arrival point of the A10 Savona-Ventimiglia motorway and the gateway between Italy and France, represents an actual example of the adoption of this material recovery practice. 100% of the milled material from the existing pavements was re-used on the site for the construction of the sub-base layers of the new road surfaces. In addition to the complete reuse of the milled material, concrete materials from the demolition were also reused in the permitted percentages for the construction of the new work.

On the occasion of World Environment Day, the ASTM Group reported on this initiative, confirming its commitment to protecting the ecosystem and joining the chorus of voices active in raising awareness of environmental issues.

AUTOSTRADA DEL BRENNERO S.p.A.

A22, THE CHOICE OF GREEN HYDROGEN DOUBLES: 8 NEW PLANTS ON THE WAY

In 2023, Autostrada del Brennero was awarded the maximum contribution out of 4 NRRP tenders for the construction of as many hydrogen distribution centres. The 4 projects are ready but this is not the end of the story: the centres are part of a broader strategy designed by the company since 2014, when it inaugurated the first green hydrogen distribution and production plant in Bolzano. The long-term goal is to achieve nine plants.

The first plant in Italy for the production and distribution of green hydrogen (green because electrolysis takes place with clean energy from the Cardano hydroelectric power plant) opened its doors in Bolzano in 2014, the result of a collaboration between the Institute for Technological Innovations in Bolzano and Autostrada del Brennero, which started research in the field back in 2006. They were practically pioneers in the development of this technology.

Autostrada del Brennero has foresightedly grasped the potential of hydrogen, which can make use of shorter charging times and significantly smaller batteries than electric. This is particularly important for the entire road haulage sector. In a little less than ten years, the Bolzano plant has powered dozens of buses and cars, delivering 176,146 kilogrammes (December 2023) of hydrogen, enough to travel 3.5 million kilometres while emitting only harmless clouds of water vapour into the air, thus saving the atmosphere 2,290 tonnes of CO_2.

Autostrada del Brennero has launched a plan that will lead to the construction in the medium to long term of a further 8 green hydrogen production and/or distribution plants, one every 50 kilometres or so. Such plan will be implemented as the demand for the energy carrier grows.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

STUDY OF INNOVATIVE TECHNIQUES FOR THE MANAGEMENT OF GREEN AREAS

The study mainly focused on the research into innovative practices and techniques to improve sustainability in managing green spaces related to motorways. It emphasised the use of Nature-Based Solutions (NBS)—ecological approaches designed to reduce the environmental impact of the motorway network.

More specifically, the research considered the following objectives as priorities:

- *Containment of green maintenance costs.*
- *CO_2 reduction and sequestration.*
- *Air pollution mitigation.*
- *Mitigation of the effects of heat islands and heat streaks.*
- *Mitigation of stormwater pollution by **runoff**, including by evaluating the implementation of a constructed wetland system.*

Depending on the distinct typological areas and different NBSs, different scenarios were evaluated, which led to analyses aimed at studying and planting appropriate combinations of herbaceous, tree and shrub species while balancing the need to increase CO_2 sequestration, minimise the effects of "heat islands and streaks", and reduce green maintenance interventions. Of the proposed solutions, an overall cost/benefit assessment was carried out.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

UNDERPASSES FOR FROGS AND TOADS - A53 BEREGUARDO-PAVIA JUNCTION

Amphibians are a class strongly threatened by habitat loss and fragmentation, being dependent on the presence of water for reproductive activity. In contexts characterised by intensive agriculture, urbanisation and a substantial road network, the main habitat type is often anthropogenic, such as rice fields that are periodically flooded. The aim of the study, entrusted to the University of Pavia, was to verify the actual road mortality of amphibians in the Bereguardo - Pavia Junction, within the Ticino Park between the rice fields, by analysing the distribution of three target species, the dispersal routes used and the possible impact of traffic on the latter. The partial data collected were presented in Turin at the XIV National Congress of the Societas Herpetologica Italica in September 2022, in the "Ecology and Ethology" section with the presentation "Singing in the rice: distribution and singing activity of three amphibian species in an agricultural landscape of the Po Valley".

The study lasted two years and focused on the movements of three target species: the emerald toad, the tree frog and the green frog. The study area lies between the SS East Ticino road and the SP 130 provincial road and is basically made up of a very uniform agricultural matrix characterised by rice paddies and low-diversity cereal fields.

The data collected during the night-time inspections on the junction and the two adjacent state roads (Bereguardina and SP 130) showed that the traffic impact of the Pavia-Bereguardo junction on the three amphibian species is minimal compared to that estimated for the two state roads. Moreover, the 38 underpasses beneath the motorway junction, suitable for the three amphibian species, are present in significant numbers at the designated crossing risk areas. These appear to ensure adequate connectivity across both sides of the motorway. Consequently, there is no need to plan for the construction of new crossings, but rather to keep the existing ones operational and well-maintained.

A35-BREBEMI S.p.A.

A35-BREBEMI AND THE CIRCULAR ECONOMY: RECYCLING MATERIALS, REDUCING EMISSIONS AND SAFEGUARDING NATURAL MATERIAL RESOURCES

The management phase of the motorway infrastructure causes environmental impacts, particularly as regards Co2eq emissions and waste production. With this in mind, Brebemi is launching policies and initiatives designed to increasingly optimise the management of waste and scrap materials as well as the procurement of raw materials.

The sustainable and rational use of natural resources, promoting circular economy principles can, besides protecting the environment and health, provide new economic opportunities and contribute to competitiveness in the long term.

To this end, the search for sustainable solutions for the resurfacing of the drainage wearing course was initiated in 2022.

The path started with the identification of the perfect design mix for the bituminous conglomerate. In fact, first studies and analyses were carried out in the laboratory with characterisation tests to improve the mechanical behaviour and then tests on an experimental section. In July 2023, the resurfacing of approximately 18 km of motorway with 20% recycled asphalt in the drainage wearing course mix was begun.

In addition, a study was launched in 2023 to quantify the environmental benefits of this initiative, using the Life Cycle Assessment (LCA) method.

The LCA study is an internationally recognised analytical methodology, codified by several standards (e.g., ISO 14040:2006, 14044:2006 etc.), that assesses the environmental footprint of a product or service throughout its life cycle.

The environmental results are the basis for a critical interpretation of the use of recycled materials in road pavements and the optimal substitution percentage that translates into a real environmental benefit.

A35-BREBEMI S.p.A.

A PROJECT TO REGENERATE AND PROTECT BIODIVERSITY ALONG THE MOTORWAY

Protecting biodiversity and wild pollinators is crucial, but should not be limited to protected areas, but rather coexist with man-made infrastructure. Until recently, environmental protection operated under a strict man-nature dichotomy that created a fracture in the ecological network. Road construction is a necessary service for the community, but at the same time it embodies this problem, replacing natural landscapes with artificial terrain and inevitably increasing the fragmentation and degradation of ecosystems.

A35 Brebemi has initiated a plan to safeguard biodiversity while also addressing the problems of regeneration of unused areas. This project started with the creation of a Biodiversity Oasis at the exit of the Treviglio toll station (A35 Brebemi-Aleatica) within the area enclosed by the junction itself. The Oasis comprises, i) 50 nectar-rich trees, enough to feed a total of 75,000 pollinating insects per year, potentially absorbing 7,488 kg of carbon dioxide from the atmosphere, ii) 2 beehives, equipped with Hive-Tech, a set of biomimetic IoT sensors, powered by small solar panels installed on the roof, that record the vital parameters of the bee colony (e.g., weight, honey production). This monitoring only assesses the well-being of 600,000 bees, but also indirectly assesses the quality of the surrounding environment. It also includes iii) the "Polly Houses", which can shelter around 450 solitary bees and other wild pollinators. The oasis is continuously monitored through satellite images and IoT bioacoustic sensors.

In addition, 10 of the 50 nectar-rich trees were planted by the Brebemi employee during the first planting event on the A35 Brebemi. This event took place at the beginning of November 2023 in order to involve the whole company in this initiative.

The Brebemi Oasis, which ranges from ecosystem regeneration and monitoring to community education, represents a paradigm shift towards harmonising infrastructural development with ecological conservation.

AUTOSTRADA BRESCIA VERONA VICENZA PADOVA – GRUPPO A4 HOLDING

REDUCING CO_2 EMISSIONS IN THE CONTEXT OF THE EUROPEAN UNION'S NET ZERO 2050 TARGETS

Autostrada Brescia Verona Vicenza Padova has launched several projects and initiatives to support the ecological transition of the transport sector, in line with the European objectives of zero greenhouse gas emissions by 2050. The company is strongly committed to reducing CO2 emissions, adopting innovative solutions in both alternative fuels and energy efficiency. One of the main projects concerns the adoption of new infrastructure for electric mobility and the use of alternative fuels along the A4 Brescia-Padova motorway section. Among the most important initiatives is the agreement with Fastned to build a fast-charging station, initially equipped with eight charging points, extendable to sixteen, capable of providing up to 400 kW of power. These infrastructures allow vehicles to travel up to 400 km with just 15 minutes of charging, thus helping to accelerate the shift towards electric mobility. In a broader perspective, the Group has also developed an action plan aimed at reducing Scope 1 and 2 emissions by 80% by 2024, with reference to 2019 levels. In pursuit of this ambitious objective, the company has been utilising electricity from 100% renewable sources since 2021 and has transitioned some heating systems to heat pumps, significantly cutting down on diesel consumption. The company completed its fleet renewal in 2023, incorporating hybrid vehicles engineered to optimise energy efficiency. In this regard, training campaigns have been initiated for employees on the optimal use of cars, which can be used in hybrid, fully electric or energy-saving modes depending on travel needs. The reduction of CO2 emissions extends beyond the company's direct activities, also embracing the transport sector through initiatives to improve mobility along motorways. The installation of charging stations for electric vehicles and the introduction of electronic toll collection systems have helped to reduce Scope 3 emissions, those not directly controlled by the company.

AUTOSTRADA BRESCIA VERONA VICENZA PADOVA – GRUPPO A4 HOLDING

USE OF RENEWABLE AND ECO-FRIENDLY MATERIALS

Autostrada Brescia Verona Vicenza Padova, even during the design and construction phases, operates with a steadfast commitment to environmental protection, implementing comprehensive measures focused on land conservation and energy recovery. With this in mind, rationalisation in the use of raw materials, semi-finished and finished products becomes a key element of constant attention.

Graphene is a material that fulfils the requirements for road pavements, offering durability and eco-sustainability. The "latest generation polymer super modifier based on graphene and hard plastics" is produced via an innovative, patented process. This process involves selecting plastics typically designated for waste-to-energy plants, which are then recycled and reintegrated into future production cycles, thereby generating long-term value.

In 2023, Autostrada Brescia Verona Vicenza Padova used around 22 tonnes of graphene as a modifier in the bitumen to make the binder mix on the carriageway. The completed road surface was designed for an operational life of at least 28 years. This translates into immediate advantages of an environmental nature, being able to carry out maintenance work over longer periods of time, with a consequent reduction in the impacts induced by construction sites (less emissions into the atmosphere, less use of natural aggregates, less transport of materials, less production at plants, etc.).

SITAF

GRADUAL TRANSITION FROM HPSV TO LED LIGHTING SYSTEMS FOR TUNNELS AND MOTORWAY JUNCTIONS

SITAF has been implementing for several years a gradual transition of all lighting systems in tunnels, underpasses, motorway junctions, toll barriers and service areas, replacing high-pressure sodium vapour (HPSV) with new LED lighting systems, thereby significantly reducing the energy needs arising from the motorway management, which is characterized by many significant tunnel stretches.

The activity has been substantially completed along all motorway junctions (including the artificial tunnels within), the Avigliana and Salbertrand toll areas and the A32 service areas.

CHAPTER 3

INFRASTRUCTURE SAFETY

3.1 • MEMBERS' COMMITMENT

Road safety is one of the most crucial aspects for AISCAT Members, with the accident rate monitored as one of the main performance indicators, particularly with regard to network management and operation. Although it is well-known that over 90% of accidents are the result of driving that is inappropriate, distracted or non-compliant with the Highway Code, as well as by vehicle conditions, Members focus heavily on infrastructure safety, technical standards and the level of service, adopting a preventative approach.

AISCAT Members promote various initiatives to reduce the causes of accidents and thus their number, exceeding legal requirements. A crucial element is the communication of events and real-time information to users, through various channels such as Variable Message Signs, websites, radio, television and dedicated apps.

AISCAT and its Members have always given great importance to mobility and road safety policies, actively participating in key national strategic and technical-operational coordination bodies. These include "Viabilità Italia - Centro di Coordinamento Nazionale in materia di Viabilità" (National Road Traffic Coordination Centre), "Consulta Nazionale per la Sicurezza stradale e la Mobilità sostenibile" (National Council for Road Safety and Sustainable Mobility) at the CNEL (National Council for Economics and Labour), and the CCISS (Road Safety Coordination Centre, of which AISCAT is also a founding member). This commitment ensures that the sector's representation in public utility and information services for motorway users is guaranteed.

AISCAT's commitment to road safety also extends internationally. The Association participates in the European Road Safety Charter Forum, a civil society platform promoting road safety in Europe, contributing to the understanding of the causes of accidents and the creation of preventive measures. Furthermore, AISCAT, through its ongoing presence in ASECAP in Brussels, actively participates in the work of the ASECAP technical groups dedicated to road safety, a key political priority for the European Union in the transport sector. In this context, ASECAP members are committed to supporting the activities of motorway concessionaires to guarantee optimal safety performance of the network, thereby contributing fully to the community's goal of "Vision Zero" for reducing accidents.

https://road-safety-charter.ec.europa.eu/

3.2 • ROAD ACCIDENTS

According to the ISTAT ACI report[2], in 2023 there were 3,039 deaths in road accidents in Italy (-3.8% compared to the previous year), 224,634 injuries (+0.5%) and 166,525 road accidents (+0.4%). With regard to 2022, the figures are slightly up for accidents and injuries, but down for fatalities. On the other hand, there was still a decrease in comparison with 2019 for accidents, fatalities and injuries (-3.3, -4.2 and -6.9% respectively).

In 2023, there were 5,493 accidents with injuries and/or deaths on the motorway network managed by AISCAT Members. These included 148 fatal accidents, causing 164 deaths. The number of injured totalled 9,404.

INFRASTRUCTURE SAFETY

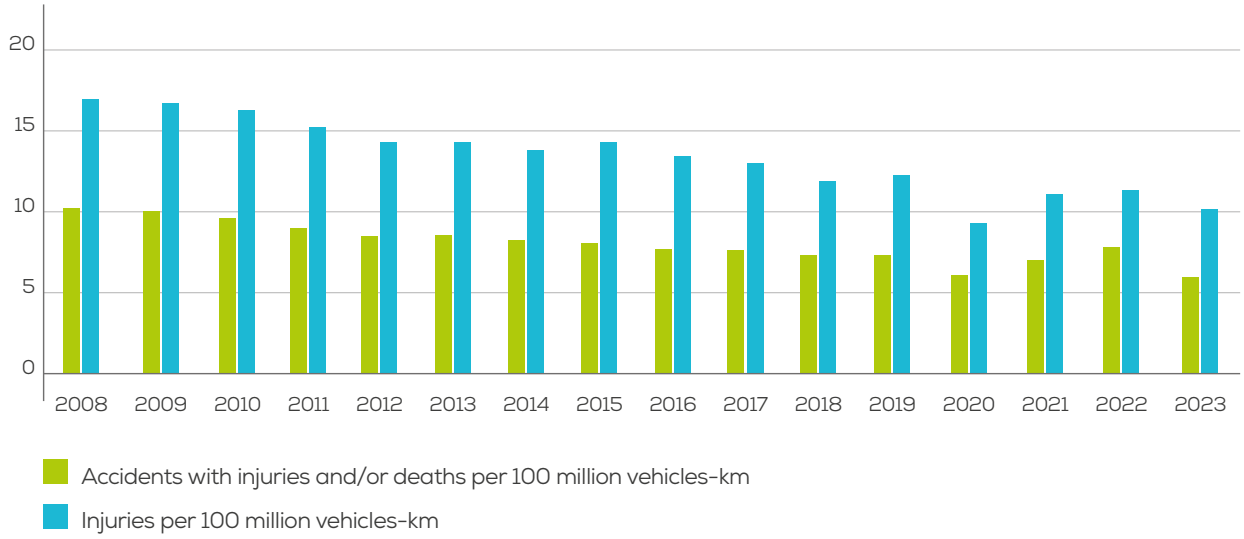
INDICATOR	2021	2022	2023
Number of accidents with injuries and/or deaths	4.395	4.577	5.493
Accidents with injuries and/or deaths per 100 million vehicles-km	6,94	6,71	5,90
Number of injured	6.975	7.648	9.404
Injuries per 100 million vehicles-km	11,02	11,22	10,10
Number of fatal accidents	151	154	148
Fatal accidents per 100 million vehicles-km	0,24	0,23	0,16
Number of dead	159	185	164
Deaths per 100 million vehicles-km	0,25	0,27	0,18

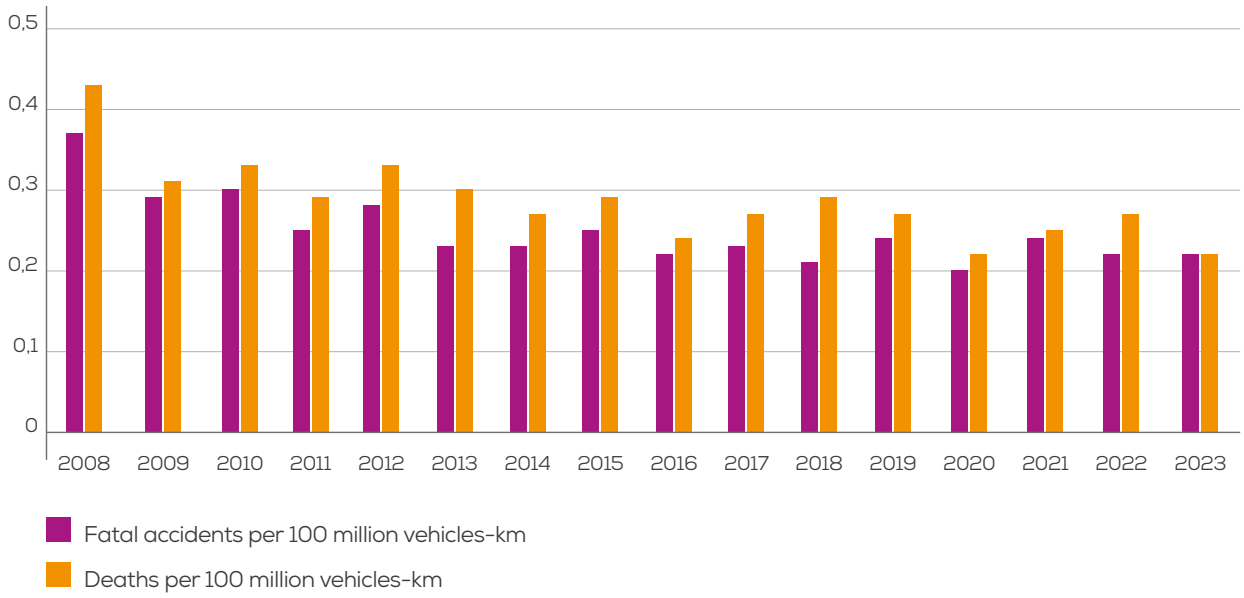
Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

The infrastructure safety data must be interpreted in light of the amount of traffic travelling on the network. To this end, indices are calculated that relate the number of accidents, injuries and deaths per 100 million vehicle-km. 2023 sees an improvement in all indices compared to the previous period: the number of accidents with injuries and/or fatalities per 100 million vehicle-km falls from 6.71 to 5.90 (-12.07%); the number of injuries per 100 million vehicle-km falls from 11.22 to 10.10 (-9.92%); the number of fatal accidents per 100 million vehicle-km falls from 0.23 to 0.16 (-29.59%); the number of fatalities per 100 million vehicle-km falls from 0.27 to 0.18 (-35.05%).

[2] https://www.istat.it/wp-content/uploads/2024/07/REPORT-INCIDENTI-STRADALI-2023.pdf

ACCIDENT RATES IN THE PERIOD 2008-2022





Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

AUTOSTRADE PER L'ITALIA S.p.A.

THE EMILIA ROMAGNA FLOOD AND FLOOD RISK MANAGEMENT

Between the evening of 1 May 2023 until 3 May 2023, the Emilia-Romagna Region experienced hydro-meteorological events of exceptional intensity, resulting in a severe crisis, especially in the provinces of Forlì-Cesena, Ravenna, Bologna, Modena, and Reggio Emilia. On 16-17 May, an additional extremely intense meteorological event took place, affecting not only the previously mentioned territories of the Romagna provinces and Bologna but also severely affecting the province of Rimini. The epicentre of precipitation was essentially the same for both events, with similar but higher precipitation totals in the second event (up to around 240 mm, compared to around 210 mm in the first event). The outcome was dramatic in human and environmental terms: 16 dead, over 23,000 displaced, 23 rivers flooded, almost 66 thousand landslides and just under 2 thousand road infrastructures affected by the disruption. These included the A14 motorway, which was closed on the morning of 17 May in the sections: Bologna San Lazzaro and Cesena Nord towards Ancona and between Rimini Nord and Faenza towards Bologna and the Ravenna D14 branch in both directions. As early as 19 May, however, after hours of relentless work, one lane in each direction of the Faenza-Forlì section was reopened. On 23 May, all 200 km of the network managed by Autostrade per l'Italia in Emilia Romagna were fully accessible in all lanes, thanks to the impressive activity plan carried out without interruption by Autostrade per l'Italia teams. In addition to the people from the Bologna Directorate, more than 600 men and women from Autostrade per l'Italia, from the Trunk Directorates of Milan, Florence and Pescara, of Amplia, as well as the contractors, took part. Approximately 160 vehicles were used for the restoration work, including 120 trucks, 5 excavators, 3 bituminous conglomerate plants available 24 hours a day, 2 tanker trucks and 2 crane trucks. Following the resolution of the motorway network emergency, efforts persisted through focused actions across the region in collaboration with local authorities.

Given the recent surge in intense weather events, especially concerning rainfall and subsequent floods, ASPI has decided to establish a structured operational management process, which encompasses three distinct phases:

***FORECAST:** analysis of the criticality of the Civil Protection bulletin and, in the event of an Orange or Red alert being issued on Alert Zones of interest to ASPI, the Assessment Phase is carried out.*

***ASSESSMENT:** Civil Protection alerts are combined with:*

- *levels of Hydraulic Hazard (ISPRA - Italian Institute for Environmental Protection and Research);*
- *the Warning Classes of Overflow Phenomenon of the works;*

The aim is to produce the Flood Risk Bulletin containing details of the sectors most at risk.

***ESCALATION** phase which in turn, depending on the severity of the situation, is divided into three levels:*

- *Alert state: definition of preparatory activities for the management of a possible and eventual traffic emergency*

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- *Status of intervention: Raising of watercourse levels such that the road surface is potentially and imminently affected: Summoning of resources and activation of first traffic measures*
- *State of emergency: Carriageway invaded by water, even partially: safe traffic passage is not guaranteed. Summoning of additional resources and implementation of measures with a greater impact on traffic.*

AUTOSTRADE PER L'ITALIA S.p.A.

DIGITALISATION FOR ROAD SAFETY

Digitalisation is at the heart of the motorway network management of the future with important impacts in terms of safety and customer services. Among the main initiatives of Autostrade, the following should be mentioned:

***AID Motion: AID Motion (Automatic Incident Detection)** detects the presence of a vehicle on the wrong side of the road or stopped in a tunnel or dynamic lane, sending the alert to the operations room in real time.*

The system makes use of radar, cameras and laser scanners assisted by an artificial intelligence system.

By 2026, Autostrade per l'Italia aims to implement this technology on 100% of tunnels above 500 metres and 100% of dynamic lanes

***Dynamic Weights:** a system that dynamically monitors the weight of vehicles in transit, detecting when the permitted limit has been exceeded and signalling the vehicle for appropriate checks.*

The system makes use of cameras and optical or digital sensors.

Autostrade per l'Italia's goal is to install the system on 30% of its network by 2026.

***Dangerous Goods Detection (AdR):** the system detects vehicles carrying dangerous goods (AdR), tracing their route on motorway sections that are not permitted to them or are particularly critical, and signalling this to law enforcement and rescue teams for possible interventions.*

The technologies used by the system are radar and cameras.

Autostrade aims to install the system on the entire network by 2026.

In the first four months of 2024, 177,000 transits of Dangerous Goods were recorded, representing 1.7% of the total transits of heavy vehicles with 3+ axles.

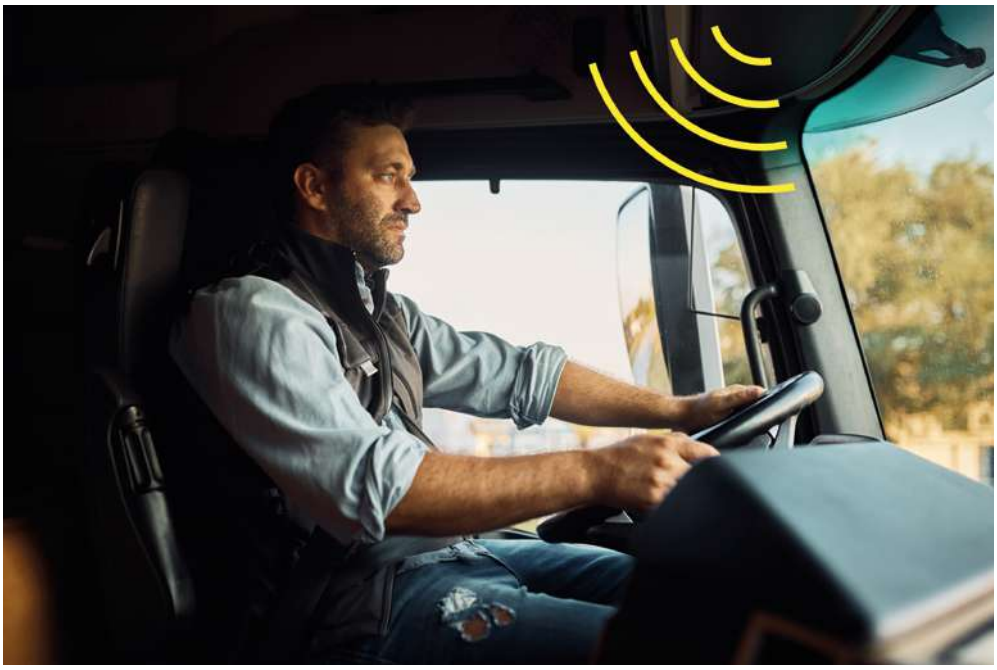
***ASPI Travelling Control Centre** is the programme that aims to use artificial intelligence applied to computer vision to support monitoring activities and maximise operational efficiency.*

The Building Site Control (BSC) module is a software library for real-time recognition of anomalies in the reporting of road construction sites.

During the first test phase, more than 7,000 km of ASPI's network were mapped to enable the system to learn and recognise anomalies more and more effectively.

AUTOSTRADA BRESCIA VERONA VICENZA PADOVA – GRUPPO A4 HOLDING

CB ADVISOR THE NEW WARNING SYSTEM FOR HAULIERS ON THE APPROACH OF A CONSTRUCTION SITE



Road safety is an unwavering and constant commitment for Autostrada Brescia Verona Vicenza Padova, which has always been looking for new solutions to keep motorists and hauliers constantly informed about problems related to traffic and work on the motorway sections under its responsibility. And it is precisely for the road transport sector that the CB construction site warning system was developed to be installed in the vicinity of construction sites.

"CB Advisor", this is the name of the new warning system, is a system configured to automatically broadcast a pre-recorded, static, cyclically repeated warning radio message on the city band frequencies also known as Citizen's Band or more commonly CB.

The CB Advisor system aims to alert hauliers through a previously configured message when they are nearing a construction site. The purpose is to prevent sudden braking or sudden lane changes, which are sometimes the cause of rear-end collisions and accidents. The message, transmitted by the system that is placed close to the construction site, has a propagation radius of 3 to 5 kilometres and is repeated at regular intervals in two languages, Italian and English.

The adoption of CB Advisor is a further step towards the goal of better safety for travellers, vehicles and goods. The purpose is to keep drivers alert and ready to react correctly to the presence of critical situations and construction sites, warning them in advance and allowing them to prepare themselves, thus reducing sudden and dangerous driving reactions.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

MOTORWAY SAFETY CAMPAIGN "GUIDA BENE, NON FARE L'EROE" ["DRIVE WELL, DON'T BE A HERO"]

Milano Serravalle developed the new motorway safety campaign "Guida bene, non fare l'eroe". It is a project to raise awareness of responsible driving behaviour, launched in the summer 2023, through online and offline content. The campaign associates 12 famous characters - chosen from mythological heroes and historical profiles - with specific messages on road safety, with the aim of promoting, through a persuasive, emotional and user-friendly language, a more careful and safer mobility.

The 12 protagonists of the campaign, conducted in Italian and in English, address the public through animated ads on the Company's social channels, posters and postcards distributed at strategic points of the managed motorway network (A7 Milan-Serravalle motorway and Milan's A50, A51, A52 ring roads).

The project is characterised by clear, simple and incisive messages: make a stop when feeling tired, do not use a mobile phone while driving, respect the safety distance, do not exceed the speed limit, pay attention to road signs, check tyre wear and the efficiency condition of the vehicle.

A35-BREBEMI S.p.A.

ROAD SAFETY INITIATIVE IN PARTNERSHIP WITH THE TERRITORY

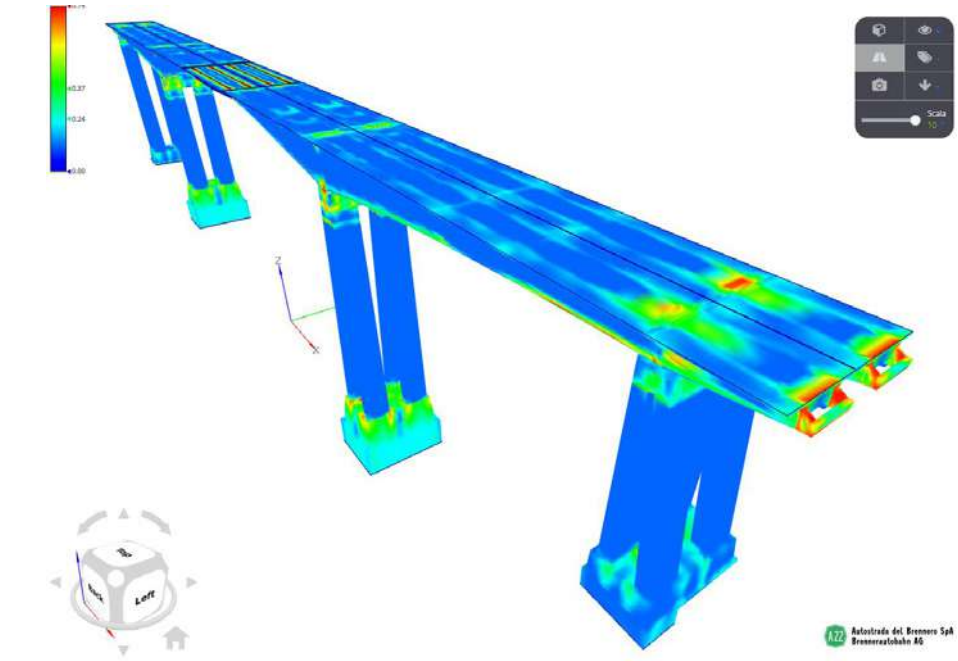
The project team, Autostradafacendo, consists of the State Police and a large group of national road operators, including the A35 Brebemi. The aim of the project is to organise road safety days, spreading awareness in the various areas crossed by each motorway. The event is especially dedicated to middle and high school boys and girls. Road accidents are a huge problem for the younger generation, in fact they are among the leading causes of death. Road safety education means training for life through the use of the road as a shared resource.

On 13 October 2023, a day was organised in the square of Caravaggio, in the province of Bergamo, with the participation of over 200 young people. Each of them participated in a series of workshops on road safety topics such as seat belts, speed, distraction, alcohol and drugs. The Blue Traffic Police Bus, a real travelling multimedia classroom, was also on site.

In addition to training, as described above, other projects were proposed to the municipal administration and schools. A teacher was asked to carry out a statistical survey of infringements before and after the training day in order to monitor any changes. The children will be engaging in a competition where they are tasked with writing a creative script centred on the theme of road safety, emphasising the importance of seat belts. There are prizes for the class and individual winners, such as a day's stay in the motorway radio room and the Regional Police Station.

AUTOSTRADA DEL BRENNERO S.p.A.

THE DIGITAL TWIN OF THE COLLE ISARCO, THE NEW LIFE OF THE VIADUCT



Autostrada del Brennero has promoted the creation of a digital model of the work, one of the most important in the Alps. The aim is to map their health status in a timely and constant manner. The next step involves creating a system that utilises artificial intelligence algorithms capable of predicting future structural behaviours.

When it was built, at the dawn of the 1970s, the Colle Isarco Viaduct was unique in Italy and beyond: a record that the artefact, located at the northernmost part of the A22, has never lost. Autostrada del Brennero, the entity responsible for its design and construction,

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has also overseen its evolution, ensuring it remains a work of the present. And it is ready to project it into the future: in fact, the Company has promoted the modelling of the viaduct's digital twin, with more than one objective: to know in real time the conditions and structural behaviour of the work, to predict its evolution and potential defects, and to plan in a precise, detailed and anticipated manner the necessary maintenance work.

Situated more than 1,100 metres above sea level, the viaduct crosses a wide valley close to the State border. At 1,028 metres long, it consists of 13 spans ranging from 45.7 to 163 metres in length and constitutes an international technical excellence, despite being subject to increasing stress over time: traffic volumes have increased dramatically over the decades and consequently so have the loads; to this must be added the harsh winter temperatures of the area in which it is located, which impose the use of saline fluxes, which are harmful to the structures. In the second part of 2022, Autostrada del Brennero decided to develop the digital twin of the viaduct in cooperation with an external company specialising in this field. In summary, an automated system processes the data collected on-site by sensors and the data calculated through a finite element model (FEM) of the artefact. The output is a digital copy, a twin, that allows an assessment of the state of the structure, which can be remotely inspected three-dimensionally, at any point. In a modelling of this type, in phases, each structural component is added to the model in successive steps as is done during the actual construction. The simulations take into account time-dependent effects such as concrete viscosity and shrinkage. The developed system therefore allows an analysis of the evolution of the parameters as well as the production of documentation and reporting when predefined alarm thresholds are exceeded: the results of excellent precision and reliability have prompted the company, at the end of 2023, to continue its experimentation to implement the model and make it more than just a simple BIM, enriching it with a predictive analysis system. The data acquired by the sensors and those calculated through numerical simulation will in fact be combined and processed by sophisticated artificial intelligence algorithms, allowing the predictive analysis of the structural behaviour of the work in the short to medium term.

SITAF

DOUBLING OF THE FREJUS TUNNEL T4

Tunnels, especially Alpine tunnels, are important infrastructures that facilitate communication between major areas of the European Union, and EU assigns them a crucial role in the functioning and development of economies on a local, regional, and transnational scale. The Frejus Tunnel (T4) doubling project started in 2012 and the objectives of the project can be summarized as follows:

- *road accidents and fires prevention, aiming at preventing the accidental event from happening;*
- *fire protection, to ensure that, should the event occur, the greatest number of people involved are rescued and fire is extinguished as quickly as possible.*
- *a system that will ensure safety standards related to both intervention efficiency and prevention of accidental cases.*
- *traffic flows separation, that will drastically reduce the chances of accidents and, in particular, will eliminate the possibility of head-on collisions.*

In 2022, works were carried out on the tunnel facilities, the new road practicability, and all functional buildings for the two T4 tunnel tubes, such works were continued and substantially completed in 2023.

CHAPTER 4 | PEOPLE

4.1 • HUMAN RESOURCES

People are the basic resource that enables AISCAT Members to create long-term social value. The Members, in fact, constantly monitor the qualitative and quantitative composition of their human capital. In 2023, the total number of employees of AISCAT Members amounts to 11,993, including the ASTM group. Relating this figure to the extent of the AISCAT network, one can observe a slight increase in the number of employees per km of network (2.18 employees per km of network), both compared to 2022 (2 employees per km of network) and to 2021 (1.95 employees per km of network).

It should also be mentioned that Members focus strongly on reskilling for employees working at the manned exit tolls which are progressively being reduced. Those workers are being trained for other duties, such as clerical work or plant monitoring.

The data in the tables represent the qualitative composition of human capital in terms of gender and contract type. It can be seen that the contracts binding employees to AISCAT Members are almost exclusively permanent (96%).

In 2023, an increase in female representation in the AISCAT Members can be observed. In 2023, women make up 26.21% of the total number of employees, an increase over 2022 (24.54%). The proportion of women is relatively high, and increasing, among office workers (47% in 2023, 30% in 2022) and among toll collectors (36% in 2023, 29% in 2022), while it remains lower among manual workers (5%), middle managers (20%) and senior managers (11%).

EMPLOYEE CHARACTERISTICS

INDICATOR	UNIT OF MEASUREMENT	2021	2022	2023
Total number of employees	no.	9,529	9,239	11,993
Total number of employees / KM of AISCAT network	no./Km	1.95	2.00	2.18
(i) Number of employees (women)	no.	2,287	2,267	3,143
(i) Number of employees (men)	no.	7,242	6,971	8,850
(ii) Number of employees by age group (up to 30)	no.	505	563	877
(ii) Number of employees by age group (from 30 to 50)	no.	3,592	3,527	4,712
(ii) Number of employees by age group (over 50)	no.	5,432	5,149	6,405
(iii) Number of employees (permanent contract)	no.	9,148	8,865	11,454
(iii) Number of employees (temporary contract)	no.	381	380	539
(iv) Number of employees (part time)	no.	1,250	1,241	2,165
(iv) Number of employees (full time)	no.	8,279	7,998	9,829
(v) Number of employees (manual workers)	no.	1,410	1,468	2,721
(v) Number of employees (toll collectors)	no.	2,916	2,639	4,475

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EMPLOYEE CHARACTERISTICS • from previous page

INDICATORE	UNITÀ MISURA	2021	2022	2023
(v) Number of employees (office workers)	no.	4,588	4,513	4,379
(v) Number of employees (middle management)	no.	464	458	385
(v) Number of employees (senior management)	no.	159	158	210
(vi) Percentage of female manual workers	%	1.80%	1.96%	5%
(vi) Percentage of female toll collectors	%	29%	29%	36%
(vi) Percentage of female office workers	%	27%	30%	47%
(vi) Percentage of female middle managers	%	21%	23%	20%
(vi) Percentage of female senior managers	%	12%	12%	11%
Percentage of employees receiving a regular performance appraisal	%	74%	77%	76%
Turnover (recruitments)	no.	502	499	1,225
Turnover (terminations)	no.	961	489	1,109
Employee turnover rate	%	10%	5%	9%

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

One of the main priorities for human resource management is training, aimed at constant updating and the development of technical knowledge. In 2023, AISCAT Members provided 626,208 hours of training to their employees, an increase of over 110% in average training hours per employee (52 in 2023). Moreover, in 2023, more than two thirds of employees receive a regular performance appraisal (76%).

The protection of the health and safety of human resources is a key indicator. In 2023, the Members recorded a total of 186 accidents at work, resulting in 146 injuries with an absence from work of less than 6 months and 2 injuries with an absence of more than 6 months. The number of occupational injuries per employee recorded in 2023 (0.0123) is down by more than 7% compared to 2022.

The Members monitor not only their direct employees but also the workers of their contractors. This is evidenced by the fact that in 2023, 74% of the kilometres under AISCAT's network had procedures to monitor workplace accidents involving employees of contractor companies.

HEALTH, SAFETY AND TRAINING OF EMPLOYEES

INDICATOR	UNIT OF MEASUREMENT	2021	2022	2023
Total number of employees	no.	9,529	9,239	11,993
Number of accidents at work (including near misses)	no.	142	126	186
Number of work accidents per employee	no.	0.0149	0.0136	0.0155
Number of work injuries (absence more than 6 months)	no.	3	0	2
Number of work injuries (absence less than 6 months)	no.	134	123	146
Number of injuries at work per employee	no.	1.44%	1.33%	1.23%
Presence of procedures for work accidents involving subcontractor employees	% KM	91%	83%	74%
Number of workplace accidents of subcontractor personnel	no.	88	80	108
Personnel training hours	no.	256,656	227,651	626,208
Personal training hours per employee	no.	27	25	52
Tasso di avvicendamento dei dipendenti	%	10%	5%	9%

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

4.2 • MEMBER INITIATIVES

AUTOSTRADE PER L'ITALIA S.p.A.

SAFETY AT THE HEART OF ASPI'S ACTIVITIES

Also in 2024, building on the progress made since 2021, the Autostrade per l'Italia Group continued to promote Safety Week (18-24 February). Throughout this period, all Group Companies actively engaged at their respective sites to create, plan, and execute initiatives aimed at fostering engagement and participation, highlighting positive health and safety narratives, and dwelling on the achievements made.

The following topics in particular are addressed during the week:

- *Impacts of climate change on workers' health and safety (Key theme of 2024 reported by the ILO - International Labour Organisation)*
- *Visible impact of invisible champions (the daily safety actions carried out by workers, which in their ordinariness have an extraordinary impact)*
- *HSE identity in the Group's workplaces (Making our workplaces recognisable by displaying the Group HSE "brand")*

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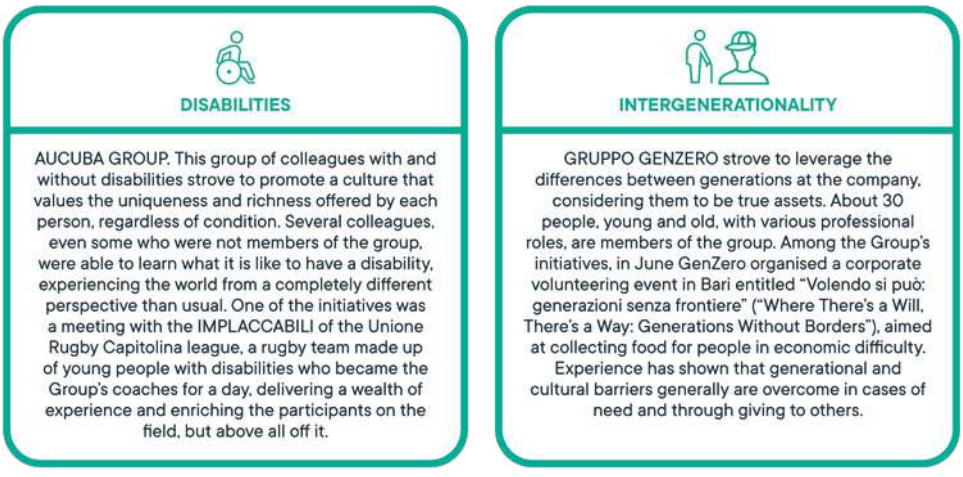
Approximately 190 initiatives were implemented during the Week, consisting of field simulations of emergency situations, workshops for sharing and raising awareness, and open-door activities to involve institutions and family members. All Group companies and about 330 external companies actively participated, involving a total of about 7,850 people.

Safety Week concluded with the presentation of the ASPI Group Health and Safety Award.

AUTOSTRADE PER L'ITALIA S.p.A.

DIVERSITY & INCLUSION

As part of the D&I strategy of Autostrade per l'Italia and its subsidiaries, a major initiative continued in 2023 concerns the Employee Resource Groups (ERGs), groups of volunteers open to all people in the Group, with the aim of promoting an even more inclusive corporate culture, addressing all diversity issues across the board. ERGs help to promote an inclusive approach, to provide support to the organisation for its DE&I objectives by activating a two-way listening channel aimed at co-creating initiatives/projects that are more personalised and adherent to the real needs of its people in the implementation of its inclusiveness programme. The 4 groups (Gender, Intergenerationality, Disability, LGBTQ+; description in the graphic) during the year have been carrying out initiatives on inclusive language topics with an organisation characterised by a board, in close contact with the HCO Management and the group members and executive sponsors representing the Top Management. The ERGs were entrusted with the management of Autostrade per l'Italia's first Inclusion Week during the week of 19-23 June, 2 years after the start of the FareDI+ programme (21 June 2021).



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LGBTQ+

GRUPPO GUIDIAMO strove to promote a culture of preventing all discrimination by personal characteristics in terms of sexual orientation, gender identity and biological characteristics inherent to sex attribution. The Group, in which 14 people participate, sought to raise the visibility of LGBTQIA+ status within the company and support the company's inclusion policies by participating in the ERG presentation events tied to company initiatives in the General Management Offices and National Branches.

GENDER EQUALITY

GRUPPO IPAZIA strove to enhance gender equality and change, from language to behaviour. The group is made up of 50 people who, taking on the role of Ambassadors of Change, are responsible for raising awareness of all the positive actions that the company takes in favour of gender equality. Ipazia thus aims to propose and realise ideas, thereby contributing to the company's ongoing evolutionary phase.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

CHILDREN IN THE COMPANY, SERRAVALLE OPENS ITS DOORS FOR A DAY

Improving the work-life balance and letting one's children and/or grandchildren get to know the places where one spends so many hours of one's day were two of the objectives that Milano Serravalle - Milano Tangenziali SpA set out to achieve with this initiative, now in its fourth year.

The theme chosen for the occasion was Road Safety and compliance with the rules when driving, as the company has launched several awareness-raising campaigns on this subject during 2023, telling the participants, about fifty of them, about this issue in new ways.

Consistent with the choice of the day's topic, an itinerary and moments of play were set up for the young participants; in fact, for the first time, they were allowed to visit the Traffic Police Headquarter in West Milan to learn about the work of the officers, to see and climb into their vehicles and to hear from the officers about the importance of respecting the rules and regulations of the road.

The second stop of the day was at the Milano Ovest/Centro Valenziano operations centre, where employees and children were able to see the company radio room, a

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laboratory dedicated to toll collection systems and the site of a motorway toll booth, as well as climb into the work vehicles of their parents or grandparents.

The day also included a stop at the Assago headquarters, where participants in the company event were able to play games of skill, take souvenir photos and watch a preview of the film "Viva Viaggiare" produced by Milano Serravalle Milano Tangenziali SpA to tell the story of the beauty of travelling, even on the motorway, and to introduce all the professionals (e.g., 118 operators, fire brigade,...) involved and who collaborate with the staff of our company to ensure that every trip is a good trip.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

LIBERAL DONATION TO THE LIBELLULA FOUNDATION

Freedom and equity are two of the founding values of the Libellula Foundation, which it aims to implement with the conception of the "Libellula Space". It is a listening desk that is free, anonymous, with no reporting obligation, that aims to intercept situations of violence or vulnerability and combat them, as well as to spread a culture of respect and inclusion. The ultimate aim is therefore to develop integrated interventions aimed at preventing and combating violence against women, particularly those living in situations of fragility.

Thanks to the activities carried out within the Libellula Space, the women or families concerned will be able to recognise violence, even when it is hardly visible, and give all people the same opportunities, especially the opportunity to know and express their own selves through real paths of self-determination. The support provided is comprehensive, including play workshops on emotions for children, assistance for parents, and a small library accessible to the general public.

A35-BREBEMI S.p.A.

RED BENCHES AGAINST FEMINICIDE AND VIOLENCE AGAINST WOMEN IN GENERAL

25 November is the International Day for the Elimination of Violence against Women, an annual event established by the United Nations assembly in 1999.

In many countries, such as Italy, the colour displayed on this day is red, and red shoes and red benches have become the symbol against feminicide and violence against women in general. These symbols, found in public squares or places, represent the victims of violence and feminicide and are a way of remembering and raising awareness of the issue.

A35 Brebemi installed two red benches in the service areas along the motorway in cooperation with the two respective FOOD operators.

The red bench in particular is a symbol of the communication and awareness-raising activities aimed at giving voice to the actions taken against violence against women, in favour of a culture of equality.

With this action, both symbolic and tangible at the same time, our Group aims to foster the recognition of respect for every individual, combating silence and all forms of abuse and discrimination.

There is also a plaque on the bench with the toll-free number to call in case of need or risk of violence.

AUTOSTRADA DEL BRENNERO S.p.A.

AUTOSTRADA DEL BRENNERO, A MOTORWAY FOR THE TERRITORIES: EUR 400,000 WORTH OF EQUIPMENT DONATED TO LILT

Autostrada del Brennero has donated to Lilt in Trento a mobile clinic and six ultrasound scanners to be used in the six provinces crossed by the route for a total value of about EUR 400,000: the aim is to promote a widespread and capillary culture of prevention, in all the territories crossed by the A22.

Autostrada del Brennero's attention to the territories and populations living along the A22 is manifested in many forms. The use of sound-absorbing asphalts, the installation of sound-absorbing barriers, and the careful design of the surrounding landscape are

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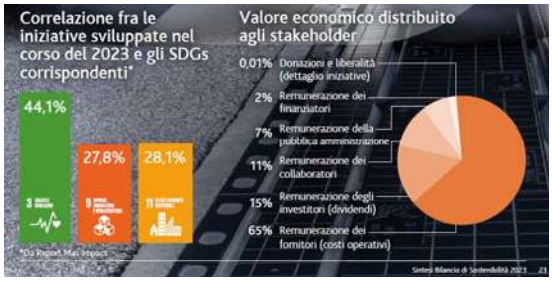
certainly concrete examples of this, as well as the support offered to earthquake victims in 2012 or the purchase of medical supplies for hospitals during the Covid-19 pandemic. Autostrada del Brennero is, after all, a motorway of the territories that wanted it and built it and that still make up 84.7% of its shareholders. It is in this context that the Company decided in 2023 to donate EUR 400 thousand to Lilt, the Italian League for the Fight against Cancer, for the purchase of a mobile outpatient clinic and six ultrasound scanners for the same number of Lilt associations in the provinces crossed by the route. This initiative represents an investment in the health of the communities residing in these regions.

Lilt, founded in 1922 and divided into 106 territorial associations, has as its main aim to spread the "culture of prevention". The project associated with Autobrennero is structured in two phases: a donation of EUR 191.6 thousand for acquiring a camper equipped with a portable ultrasound, and EUR 207.9 thousand allocated for the purchase of six ultrasound machines. The project is spearheaded by the Provincial Section of Trento Ets-Odv, which hosts the mobile clinic prepared for dispatch to the various provinces. The added value of the camper is its ability to reach a wider segment of the population. The vehicle, on board of which will be carried out actual visits and consultations for the potential detection of various neoplasms (including melanomas and breast cancers), will indeed promote the spread of a culture of primary prevention but also access to early diagnosis, which are essential elements in the battle against cancer.

To support Lilt's initiative Autobrennero also donated six ultrasound scanners. These scanners have been distributed and will be utilised in the Lilt offices located in the six provinces along the Autobrennero route. The high-performance equipment will broaden the range of Lilt services in areas where they are not yet available or facilitate the replacement of outdated devices.

AUTOSTRADA BRESCIA VERONA VICENZA PADOVA – GRUPPO A4 HOLDING

SYNERGIES WITH THE TERRITORY



Attention to the territory has always been a focal point for our business vision. That is why we work with our stakeholders to design and implement new works and infrastructures that can contribute to the economic development of the territories in which we operate. We also do this by choosing local suppliers, thus boosting the development of local businesses. We also support projects and initiatives of social interest.

In detail, the concessionaire's and the Group's commitment to supporting the local community took the form of a total of 19 initiatives in 2023. The primary focus of these initiatives is on key areas such as mobility and road safety, cultural integration, environmental conservation, and training and research. The intervention areas where we aim to have an impact through our initiatives include social welfare, arts and culture, socio-economic development, institutional strengthening, education, environmental protection, and the encouragement of active citizenship.

The Mass Impact report shows that for 2023, 44.1% of the initiatives are related to goal number 3 "Good health and well-being"; this is followed by goal number 9 "Industry, innovation and infrastructure" with 27.8% of the initiatives related to it, while 28.1% of the initiatives developed in 2023 are related to goal number 11 "Sustainable cities and communities".

In 2023, one of the initiatives supporting the territory was the participation in Tocatì, the International Street Games Festival, with the "Island of Sustainable Mobility" project. This project aimed to promote the fundamental principles of sustainable mobility, focusing on road safety, territorial integrity, and environmental conservation. Throughout 2023, the longstanding partnership with the Arena di Verona Foundation was further strengthened during the 100th Arena Opera Festival. Autostrada Brescia Verona Vicenza Padova reaffirmed its commitment and support as a donor of the "67 Columns for the Arena di Verona" project.

CHAPTER 5 | VALUE CREATION

5.1 • ECONOMIC IMPACTS ON LOCAL COMMUNITIES

The establishment and management of a motorway infrastructure can generate important economic effects that allow the development of local communities. In fact, connection to the motorway network can significantly improve the quality of life for communities and open up new prospects for development and the creation of prosperity that previously did not exist.

The social prosperity that AISCAT Members create, and which is distributed among the various categories of stakeholders, can be quantified in economic terms. The most commonly accepted standard for measuring such generation and, consequently, distribution of value, is that proposed by Gruppo Bilancio Sociale (GBS), which allows calculation of the Global Value Added generated by the company.

Global Value Added: quantifies the economic effect that AISCAT Member activities have produced on stakeholders that contribute most directly to the production of corporate economic wealth and participate in its distribution. Overall, in 2023, AISCAT Members generated EUR 5.28 billion in Global Value Added.

The GBS method requires calculation of the total production value of Members, which in 2023 was EUR 10.89 billion, largely derived from toll revenues (EUR 7.7 billion).

The total intermediate costs of production came to EUR 4.33 billion, mainly generated by the purchase of services, provisions and consumption of raw materials, ancillary materials, consumables and goods purchasing.

In particular, costs for services amounted to EUR 3.53 billion. Assuming that the average annual salary of an employee is EUR 30,000, we can conclude that AISCAT's contribution to the economic fabric is equivalent to the annual pay of over 117 thousand workers.

Consequently, the gross value added from core business amounts to EUR 6.56 billion. Lastly, to arrive at the calculation of global value added it is necessary to take into account the revenues and costs of ancillary operations (which also include financial income and write-downs of financial assets) and amortisation, which together amount to EUR 1.50 billion.

The Global Value Added that Members can distribute to stakeholders contributing directly to the production of the company's economic wealth is therefore EUR 5.28 billion.

By comparing the Global Value Added produced by AISCAT Members for the extension of the motorway network, one can observe an increase over 2022. In 2023, the Global Value Added per km of network amounts to EUR 958.5 thousand, compared to EUR 879.7 thousand in 2022.

GLOBAL VALUE ADDED CALCULATION STATEMENT 2023

Toll revenues	7.673.908.408,84 €
Construction revenues	2.363.208.225,79 €
Revenues for contract work	2,970,433.79 €
Other revenues and income	851,898,401.54 €
TOTAL PRODUCTION VALUE	**10,891,985,469.96 €**
Consumption of raw materials, consumables and goods	325,698,917.85 €
Costs for services	3,532,054,968.62 €
Cost for leased assets	32,253,485.09 €
Provisions	360,718,701.45 €
Sundry operating expenses	77,495,944.90 €
TOTAL INTERMEDIATE PRODUCTION COSTS	**4,328,222,017.91 €**
GROSS VALUE ADDED FROM CORE BUSINESS	**6,563,763,452.05 €**
Revenues from ancillary operations	263,080,285.24 €
Costs of ancillary operations	38,463,782.11 €
GROSS GLOBAL VALUE ADDED	**6,788,379,955.18 €**
Depreciation and amortisation	1,506,600,459.80 €
GLOBAL VALUE ADDED	**5,281,779,495.38 €**

Note: The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.

The table below illustrates how Global Value Added generated by the Members is distributed..

GLOBAL VALUE ADDED DISTRIBUTION STATEMENT 2023

Remuneration of Public Administration	1,557,867,923.70 €	29%
Employee remuneration	1,351,242,184.50 €	26%
Remuneration of the company	947,738,486.30 €	18%
Remuneration of debt capital	898,023,062.30 €	17%
Remuneration of risk capital	526,907,837.90 €	10%
TOTAL	**5,281,779,494.80 €**	

Note: I dati del 2023 comprendono anche il gruppo ASTM e, pertanto, non sono paragonabili con gli anni precedenti.

As in previous financial years, in 2023 the Public Administration is the stakeholder to which the Members distribute the highest share of Global Value Added, totalling EUR 1.56 billion (29% of the total) through income taxes, indirect taxes, duties and contributions, and concessionary fees.

This is followed by remuneration of personnel (EUR 1.35 billion, or 26% of Global Value Added), remuneration of debt capital, i.e., interest and other financial charges (EUR 898 million, or 17% of Global Value Added), and remuneration of risk capital, i.e., distributed dividends (EUR 527 million, or 10% of Global Value Added). The remaining part is the company's remuneration, i.e., the profits (or losses) for the financial year 2023, net of distributed dividends, which amounted to a positive EUR 947 million (or 18% of the Global Value Added) and will enable the Members to self-finance their activities.

5.2 • INNOVATION

In the motorway network sector, innovation in the sense of growth is crucial for generating long-term value. For example, some AISCAT Members are investing significantly in the development of Smart Roads, a new type of intelligent road designed to foster communication and interconnection between passing vehicles. Advanced weather and traffic monitoring systems will enable users to obtain real-time information on road conditions, traffic or special situations, as well as suggest alternative routes if necessary.

Innovation, seen as infrastructure development, can also include the modernisation and upgrading of infrastructure to adapt to the technological changes of cars using the network. In doing so, infrastructures not only fulfil their primary function, but also become tools for generating environmental and social value. In addition, other initiatives of the Members concern dialogue with users, with the aim of better understanding the causes of accidents and promptly intervening with measures to reduce risk.

AUTOSTRADA PEDEMONTANA LOMBARDA S.p.A.

TECHNOLOGY AND EVOLUTION OF THE FREE FLOW® SYSTEM

Autostrada Pedemontana Lombarda was designed and developed with the Free Flow® toll collection system for barrier-free toll collection. It is a system that saves land, as it does not have physical barriers, and brings junctions closer together, a very useful feature in the case of motorway infrastructures that pass through densely urbanised areas, where users can take the route strictly necessary, even for short distances.

The Free Flow® toll collection system is characterised by "portals" covering the entire carriageway where detectors (cameras, classifiers, antennas, illuminators, etc.) are installed, which, as vehicles pass, register the number plate, attribute the relevant volumetric class and determine the toll.

Since its installation on the first sections of the Autostrada Pedemontana Lombarda (A36), as well as on the Como and Varese ring roads (A59 and A60), the technology has changed and evolved, becoming more precise and efficient. Payment systems have advanced due to the expansion of the electronic toll market and the increasing ease with which users handle electronic payments. Additionally, Autostrada Pedemontana has developed its own systems, positioning itself as an alternative to other service providers.

Today's challenge is one of continuous evolution, thanks to the enormous expansion of possibilities provided by the use of sensors and artificial intelligence, by more accurate number plate detection devices even in adverse weather conditions, which are also used to improve the safety of motorway users.

The Free Flow® system, implemented by Autostrada Pedemontana as the first of its kind in Italy, undergoes continual benchmarking against its international counterparts to unify standards and foster innovation in both systems and processes.

For the users, it represents a cultural change: the habit of the physical barrier, which coincides with the moment of payment, is eliminated. Users of electronic toll collection services benefit from the convenience and improvements offered by Free Flow®, while those accustomed to other payment methods, including cash, must adapt to a new system. It is a change that takes time, as it has not been fully established, but the increasing figures indicate a rising recognition and appreciation of the advantages that the system can offer.

AUTOSTRADE PER L'ITALIA S.p.A.

AUTONOMOUS DRIVING

Driver-vehicle-environment interactions in road transport are based on the capabilities of the human driver, with the resulting consequences in terms of commitment (attention and fatigue of driving), use of time (devoted to driving) and safety (90% of accidents are exclusively or predominantly driver-related).

These characteristics of road transport are changing radically as a result of innovations and technological developments applied to vehicles, which support the driver and in the future will replace them.

Autostrade per l'Italia was the first concessionaire in Italy to allow autonomous-driving vehicles to circulate on its network for testing purposes. Autostrade per l'Italia is working alongside the Politecnico di Milano, a university that recently obtained authorisation for this type of test, supported by the Technical Support Observatory for Smart Roads and Connected and Autonomous-Driving Vehicles of the Ministry of Infrastructure and Transport.

The first road tests started in July on the A26 where the autonomous-driving car travelled 20 km in a section where there were no tunnels. At the end of October, the trial continued for another 30 km, again on the A26, this time also passing through the Valsesia tunnel.

AUTOSTRADE PER L'ITALIA S.p.A.

NEW TRAFFIC CONTROL: THE FALCO PROJECT

Autostrade per l'Italia started a trial on the Ligurian territory to assess the benefits of using drones equipped with cameras to monitor traffic events.

Through video streaming, the Radio Information Centre will be informed of traffic conditions in real time.

The initial stage of the experiment, termed "flights with a pilot on sight," has been conducted, involving a pilot within the drone-monitored area.

The next step will be characterised by remote pilot or automatic flight and will consist of five phases:

- *5 fixed "nests" along the network where the drone takes off, lands and recharges*
- *"BVLOS" mode: a pilot from Rome guides the drone remotely at the request of the Radio Room*

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- *"Automatic flight" mode: the drone autonomously patrols the network along pre-set and scheduled routes*
- *In-flight event detection experimentation: definition of ad hoc flight plan*

AUTOSTRADA BRESCIA VERONA VICENZA PADOVA – GRUPPO A4 HOLDING

C-ROADS ITALY 2

Autostrada Brescia Verona Vicenza Padova Spa took part in the C-Roads Italy 2 project, framed within the European "C-Roads" platform, with the aim of studying, implementing and testing C-ITS (Cooperative Intelligent Transport Systems) under real motorway and urban traffic conditions.

Specifically, C-Roads Italy 2 implemented a number of services including:

- *GLOSA - Green Light Optimal Speed Advisory (technology that allows one to adjust the car speed to reach the traffic lights with a Green signal);*
- *Traffic signal priority request by designated vehicles - ambulances, police etc. - of the Green traffic signal);*
- *Signal violation/Intersection safety (system to alert the driver of a vehicle about to violate the red traffic light signal, or to alert the same driver when another vehicle is about to violate the red traffic light signal);*
- *Off and On street parking management & information;*
- *Traffic Information and Smart Routing;*
- *Weather condition warning.*

In addition, a link was created between mobility and traffic management between the Municipality of Verona and Autostrada Brescia Verona Vicenza Padova.

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On 23 November 2023, Autostrada Brescia Verona Vicenza Padova hosted the final event of the C-Roads Italy 2 and C-Roads Italy 3 projects entitled "C-ITS systems applied to urban and motorway mobility".

The results achieved by these experimentation phases make it possible to anticipate the future challenges of interconnected mobility and the achievable benefits in terms of improved road safety, greater transport efficiency, reduced energy consumption and fewer negative effects on the environment.

AUTOSTRADA DEL BRENNERO S.p.A.

THE A22 IS INCREASINGLY READY FOR CONNECTED DRIVING: C-ROADS ITALY 3 AND THE NEW MOBILE USE CASES

Following its pioneering role in C-Roads Italy, the third edition of the Autostrada del Brennero project saw the implementation of new mobile use cases and the acquisition of new Roadside Units, both stationary and mobile. The aim is to make the infrastructure ready for the increasingly connected and cooperative driving of the future.

Investing in digital mobility means striving towards a more efficient and safer infrastructure. With this outlook, Autostrada del Brennero has long been investing in the sector, taking part in and often spearheading various international projects to implement and then test C-ITS (Cooperative Intelligent Transport Systems) under real traffic conditions. A genuine Copernican revolution is unfolding in traffic management: the one-to-one relationship between the control centre, which primarily dispatches information to variable message panels, is increasingly being enhanced by a C-ITS infrastructure. This system facilitates communication predominantly from infrastructure to vehicle (I2V), and potentially, from vehicle to infrastructure (V2I) as well. The axis around which this very important

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transformation revolves is georeferencing. That is, the information that vehicles and artery exchange, unlike in the past, is constantly updated and geolocalised, with constant and total mapping of the entire artery.

In the C-Roads Italy 3 initiative, the Company has taken a significant step forward: 5 new stationary RSUs and 15 new mobile RSUs were purchased to handle mobile use cases. In fact, mobile use cases have been the central focus of the Autobrennero project. Four of those were developed, two from the construction category and two from the special event notification category. The first saw the mobile RSU positioned on a winter maintenance vehicle: the aim was to warn oncoming road users that they would encounter such a vehicle in operation, so that they could adapt their driving behaviour. The second staged a mobile construction site: those arriving were alerted to the presence, continuously updated in terms of geolocation, of the construction site. The last two cases involved emergency or priority vehicles. In one case, the antenna was installed on the ambulance or on the patrol car that proceeded at high speed to reach the location of the hypothetical emergency. The aim at this juncture was to warn those in front of the vehicle of the vehicle coming up behind them. The final case examined a hypothetical scenario where a mobile RSU was placed on a stationary vehicle at the expected point of an accident, broadcasting messages to approaching vehicles.

From a future perspective, equipping all cars with the necessary technology is expected to yield positive outcomes. Such messages would reverberate along the entire route, modulating speeds and adjusting travel times. As a result, the impact of any delays would be distributed over a larger area, preventing or diminishing the formation of queues.

MILANO SERRAVALLE MILANO TANGENZIALI S.p.A.

MILANO GREEN DOOR, AN INNOVATIVE MODAL INTERCHANGE HUB

Milano Green Door is an innovative initiative of Milano Serravalle - Milano Tangenziali S.p.A., located at the southern entrance to Milan. This green multimodal hub is designed to offer a wide range of mobility services while promoting sustainability and technological innovation.

The hub provides a spacious parking area complete with charging stations for electric vehicles, "park & ride" services featuring a fleet of shared electric cars, and designated spaces for parking bicycles and e-bikes. Additionally, an experimental autonomous-driving taxi service is being tested to provide rapid connections between Green Door and the city's popular destinations. The first floor offers users an information point with assistance for motorway services, meeting rooms outfitted for videoconferencing, and a refreshment zone with smart systems for buying fresh food. The interior spaces offer a panoramic view of the surrounding green environment, encouraging relaxation during breaks.

A room dedicated to the installation of state-of-the-art technology, the "Teleportation Room" provides users with the chance to engage with virtual assistants and partake in immersive virtual experiences. This feature enables one to virtually teleport to historical or tourist destinations, providing both educational and entertainment value.

Green Door stands out for its environmental sustainability, with the use of photovoltaic panels for renewable energy production, sound-absorbing barriers made of recycled materials and a modular, lightweight steel structure. In addition, LEED certification for building sustainability is actively being pursued.

A35-BREBEMI S.p.A.

"ARENA OF THE FUTURE" PROJECT, TESTING OF THE ERS - DWPT SYSTEM

The testing of the dynamic charging system for electric vehicles is part of a process aimed at providing an important contribution to the decarbonisation of the transport sector and started in 2020. On that date, in fact, Brebemi launched a study with the Politecnico di Milano on the state of the art of technologies in the field of ERS electric mobility. This study was followed by a technical-scientific test launched with the support of industrial, scientific and institutional partners to create the conditions for development of the ERS DWT Dynamic power transfer system along motorway transport corridors.

After a careful design phase of the various components, what is now called the "Arena of the Future" was in constructed in 2021, an area on the A35-Brebemi motorway in which there is a 1,050-metre asphalt circuit that acts as a pilot track to study and test the DWPT charging system. In fact, the track's upper surface layers contain a system of coils powered by 1MW of electricity capable of zero-contact power transfer to special plates positioned under vehicles, allowing them to be charged not only statically, but also dynamically during their movement along the track.

In 2022, the track testing phase was launched, involving one light vehicle, a Fiat 500, and one heavy vehicle, an Iveco Bus.

The research objectives covered various areas and subjects of investigation:

1. *Environment and Sustainability;*
2. *Safety: EMF and EMC with electromedical devices;*
3. *Public Works;*
4. *Installation Works;*
5. *Security*

In 2023, research activities continued and a series of activities were carried out to update the plant's management software, and in particular, the activities required to power the "S-WPT" static induction recharge were carried out. Applications are also being verified and tested on other environments than purely motorway ones.

SITAF

ITALY-FRANCE POWER LINE

With its 190 kilometers (95 of which in Italy), the Italy-France will be the world's longest DC cable power line to be integrated within motorway infrastructure, thus 'invisible'. The underground cable will connect the Piossasco power station (in Turin's district) to the Grand-Île (Sainte-Hélène du Lac) power station, passing through the second Frejus tunnel, partially integrated within the existing motorway infrastructure. The extra-high-voltage direct current (HVDC) link will have a total capacity of 1,200 MW. This is a strategic project for both Italy and France, as well as for Europe, because it contributes to the creation of infrastructure corridors for electricity transmission along the

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North-South axis. For this reason, according to Regulation (EU) 347/2013, the project has been included by the European Commission on the list of Projects of Common Interest (PCI) since 2013. The Italian side of the infrastructure is characterized by two bipoles: the first belongs to the National Transmission Grid, the second (the so-called Interconnector) is a privately funded electricity link.

The new interconnection between Italy and France is a highly sustainable and technologically advanced infrastructure, which will significantly promote the energy integration from renewable sources supporting the reduction of CO2 emissions and the European decarbonization goals for 2050. The project will increase the electricity exchange capacity and foster greater electrical solidarity between the two countries, while also advancing the development of the European electricity grid. Currently, electricity exchanges between France and Italy can rely on the existing alternating current lines (the 380 kV double-triad 'Rondissone-Albertville' line, the 380 kV 'Venaus-Villarodin' line, and the 220 kV 'Camporosso-Trinité Victor- known as Mentone-' line), with a maximum exchange capacity of about 3,150 MW. The strengthening of the interconnection will enhance mutual support capabilities between Italy and France with benefits also for the pooling of generation resources and grid services at the European level. Once fully operational, the interconnection will increase the electricity transmission capacity between Italy and France by 1,200 MW, raising the total exchange capacity to 4,350 MW with an about 40% increase compared to the current levels. In November 2022, after the completion of all preparatory operations for the commissioning of the plant, the privately owned interconnection section became operational.

On the other hand, with regard to the publicly owned section of the project, due to some operating anomalies, throughout 2023 numerous functional tests were carried out on the line and the last finishing works, emerged as necessary after various inspections carried out by the companies involved in the construction of the power line, were completed.

The "Public Line" of the power line was activated on August 4, 2023.

CHAPTER 6

CORPORATE GOVERNANCE

6.1 • SUSTAINABILITY GOVERNANCE

Corporate governance steers the company towards the achievement of its goals and is a key component of the sustainability approach.

In 2023, 100% of the responding Members have a Supervisory Body established pursuant to Legislative Decree No. 231/2001. This body plays a fundamental role in promoting ethical conduct and in preventing unlawful acts.

Furthermore, in 2023, 90% of the responding Members (operating 94% of the network kilometres among the respondents) have anti-corruption procedures in place.

Finally, in 2023, 56% of the responding Members (who, among the respondents, manage 88% of the network) have procedures in place for selecting suppliers according to sustainability criteria (Environmental-Social-Governance), contributing to the dissemination of sustainability logic also within the supply chain.

CORPORATE GOVERNANCE

INDICATOR		2021	2022	2023*
Supervisory Body presence (pursuant to Legislative Decree No. 231/01)	% network km	93%	93%	100%
Supervisory Body presence (pursuant to Legislative Decree No. 231/01)	% Members	91%	91%	100%
Presence of anti-corruption procedures	% network km	100%	100%	94%
Presence of anti-corruption procedures	% Members	100%	100%	90%
Existence of supplier selection procedures based on ESG criteria	% network km	91%	97%	88%
Existence of supplier selection procedures based on ESG criteria	% Members	55%	74%	56%

Note:
[1] Figures refer only to the responding Members, which in 2023 represent 94% of the AISCAT network KM.
[2] The figures for 2023 also include the ASTM group and are therefore not comparable with previous years.


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METHODOLOGICAL NOTE

The AISCAT Sustainability Report 2024 provides a representation of the environmental and social performance of AISCAT Member companies with reference to the financial year ending 31/12/2023.

This study has been drawn up by AISCAT management, with contribution from a Work Group composed of representatives of the association and its Members. The international reporting standards of reference are those of the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI).

The reporting perimeter of the 2023 data includes all AISCAT Member concessions as at 31/12/2023, in addition to the ASTM group, although it has formally been included in the association's perimeter since 01/01/2024. Overall, the concessionaire companies within the 2023 reporting perimeter cover a total of 5,800 km of motorway network. In the preparation of this report, it was possible to collect data referring to 5,180 km of the network, i.e., 89.3% of the AISCAT network. The data were parameterised on 100% of the network under AISCAT management on the basis of the network km. The figures for 2023 cannot be compared with previous years, which do not include the ASTM group and refer to a smaller extension of the AISCAT network (respectively, 4,613.1 km in 2022 and 4,872.2 km in 2021).

In order to identify the material topics to be reported, in an objective and not self-referencing manner, SASB guidelines were used, in particular those relating to the "engineering and construction services" sector. Among others, the SASB identifies the following topics as material: structural integrity and safety, employee health and safety and business ethics. The identification of material issues also benefited from a benchmark analysis conducted on some of Europe's most progressive concessionaires in terms of sustainability reporting. Note that in this regard AISCAT is the first national motorway concessionaire association to draw up a sustainability report.

Following the identification of relevant topics, indicators were identified (also based on the standards issued by the Global Reporting Initiative) and data were collected to calculate them.

GLOSSARY

ASECAP: European Association of Operators of Toll Road Infrastructures

IBTTA: International Bridge Tunnel and Turnpike Association

PIARC: World Road Association

Traffic: use of the motorway network, measured as the sum total of km travelled by all vehicles (light and heavy) on the network.

Electronic toll collection: Electronic motorway toll collection system: thanks to a device on board the vehicle, toll payment can be charged to a credit card.

Architectural road structures: bridges, viaducts and tunnels

Scope 1 (CO_2 emissions): Direct emissions (Scope 1) are generated directly by the AISCAT Members (e.g., consumption for heating offices and other operating sites).

Scope 2 (CO_2 emissions): Indirect emissions (Scope 2) are generated indirectly as part of the AISCAT Member's business and include, for example, CO_2 emissions resulting from the use of electricity for tunnel lighting and ventilation.

Global Value Added: quantifies the economic effect that AISCAT Member activities have produced on stakeholders that contribute most directly to the production of corporate economic wealth and participate in its distribution.

Tunnel: approximately horizontal perforation of high ground that links one place to another.

Environment-related expenditure and investments: refer to actions taken by AISCAT Members to reduce the environmental impact of works or of works management above the regulatory threshold. The table provides details of the amount spent or invested broken down by type of intervention (water, soil and landscape; waste treatment and management; emissions treatment; noise; environmental decontamination and remediation; energy plants, renewables and energy efficiency works; other management costs; environmental impact assessments (EIAs)).

Vehicles-Km (millions): the indicator used to measure traffic travelling on the network. It represents the sum of Km travelled by all vehicles transiting the network.

Associazione Italiana
Società Concessionarie
Autostrade e Trafori