

autostrade  
per l'Italia



# Climate Transition Plan

# 2024





# INDEX

	<b>Letter to Stakeholders</b>	<b>3</b>
<b>1.</b>	<b>Introduction</b>	<b>6</b>
1.1	About this paper	6
1.2	Navigating our Climate Transition Plan ('CTP')	7
<b>2.</b>	<b>Climate ambition</b>	<b>9</b>
2.1	About Autostrade per l'Italia	9
2.2	Adaptation Ambition	10
	2.2.1 Climate Change Adaptation Framework	11
2.3	Mitigation Ambition and Sustainable Mobility	12
	2.3.1 Objectives and priorities	12
	2.3.2 Implications for the Business Model	13
	Dependence on external factors	13
	Climate Roadmap and Key Milestones	14
<b>3.</b>	<b>Implementation strategy and risk management</b>	<b>15</b>
3.1	Adaptation Strategy	15
	3.1.1 Adaptation risks: analysis and impact management	15
	3.1.2 Description of the Adaptation Framework	16
	3.1.3 Future strategic priorities for adapting to climate change	28
3.2	Mitigation Strategy	28
	3.2.1 Business Model Transformation	28
	3.2.2 Transition risks and opportunities: analysis and management	32
	3.2.3 Future strategic priorities for climate change mitigation	38
<b>4.</b>	<b>Financial planning</b>	<b>39</b>
4.1	Investment plans to support the strategy	39
4.2	Sustainability Linked Financing Framework	40
<b>5.</b>	<b>Engagement strategy</b>	<b>42</b>
5.1	Stakeholder Engagement: Principles and mapping	42
5.2	Driving a collective change: channels and initiatives	44
<b>6.</b>	<b>Monitoring progress</b>	<b>49</b>
6.1	Climate Metrics and Targets	49
<b>7.</b>	<b>Governance on climate issues</b>	<b>52</b>
7.1	Roles, Responsibilities and Accountability	52
<b>8.</b>	<b>Culture, incentives and skills</b>	<b>55</b>
8.1	Integrating Climate Ambition into Culture	55
8.2	Remuneration Policy and Sustainability	56
8.3	Skill Development Plans	57





## Letter to Stakeholders

In 2020, **Autostrade per l'Italia** embarked on a transformation plan, which also included aligning its business model and strategy with key sustainability themes. Every day, we work to make our network — essential for the country's economic activities and social cohesion — more suitable for the needs and opportunities of new mobility paradigms. Our goal is to provide the country with a more resilient and longer-lasting infrastructure. Ultimately, we aim to make the network more modern, safe, and sustainable.

Such approach cannot ignore the issues related to climate change, one of the major global challenges, given the increasing frequency of extreme weather events. In this context, **ASPI's strategy** includes, on one hand, reducing environmental impacts through carbon footprint reduction and the development of sustainable mobility models. On the other hand, it involves interventions aimed at enhancing infrastructure resilience to climate change.

From this perspective ASPI has recently carried out several activities including the definition of a **net-zero plan** with medium-term (2030) and long-term (2050) objectives validated by the **Science-Based Targets initiative (SBTi)**.



**Elisabetta Oliveri,**  
President  
Autostrade per l'Italia

Additionally, the process for the update of the modernization and upgrade plan of ASPI's network (currently being shared with the granting Ministry) is ongoing, with a focus on infrastructure resilience, development and climate adaptation, featuring technological innovation and digitalization.

The drafting of the **Climate Transition Plan** is a fundamental step in this journey. It not only leverages what has already been achieved but also defines future lines of action that will position ASPI at the forefront of building, managing, and maintaining a more modern, increasingly safe, and resilient motorway infrastructure also in view of extreme climate events.

Aligned with the goals of the **Paris Agreement**, particularly the target of limiting the increase in average global temperature to **1.5°C** above pre-industrial levels, the **Climate Transition Plan** reaffirms ASPI's commitment to energy transition as a driver of sustainable mobility. It outlines ambition, governance, risk mitigation strategy, financial planning, stakeholder engagement methods, concrete objectives, and relevant metrics.



**Roberto Tomasi,**  
CEO  
Autostrade per l'Italia

# 1. Introduction

The Climate Transition Plan (“CTP”) developed by Autostrade per l’Italia integrates into a single strategic document the Group’s climate adaptation and mitigation strategy, outlining the approach toward the transition to a low carbon economy.

## 1.1 About this paper

The Autostrade per l’Italia Group (“ASPI”) publishes its first Climate Transition Plan outlining strategies and objectives for embracing a low greenhouse gas emission economy and adapting its infrastructure to the challenges posed by increasingly extreme climate events. This initiative is aligned with the objectives of the Paris Agreement, particularly the ambition of limiting the global average temperature increase to 1.5 °C above pre-industrial levels.

This paper consolidates ASPI’s commitment to the climate transition plan, outlining its ambition, implementation and risk mitigation strategy, financial planning, stakeholder engagement strategy, governance, objectives and relevant metrics. Together, these elements promote a holistic and practical view of the Group’s climate commitments.

### Periodic Updates

The main climate indicators and progress will be updated and reported annually in the Group’s Sustainability Reports and Annual Financial Report. The Climate Transition Plan will be updated in line with the Group’s strategic directions and structure, at least every five years. Furthermore, the sustainability section of the company website will be periodically updated to share the most relevant news on climate change initiatives.

### Reporting Standards

This Climate Transition Plan has been developed in line with the disclosure requirements of the Corporate Sustainability Reporting Directive (CSRD)<sup>1</sup>, and the guidelines of the Climate Disclosure Project (CDP)<sup>2</sup>, including the technical note on structuring a Climate Transition Plan<sup>3</sup>, and is inspired by the disclosure framework of the Transition Plan Taskforce (TPT)<sup>4</sup>, published in October 2023.

Attention towards the development of Climate Transition Plans is growing, driven by reporting requirements and requests from key stakeholders. In parallel, efforts are underway to standardise and coordinate different standards. ASPI is committed to closely monitoring these developments and adopting market best practices.

<sup>1</sup> ESRS DR E1-1 - Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023.

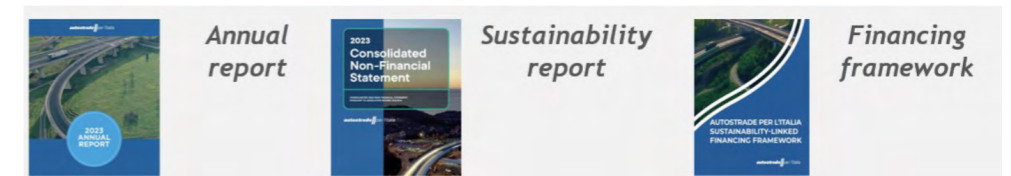
<sup>2</sup> “Are companies developing credible transition plans?” CDP (2022).

<sup>3</sup> “CDP Technical Note: Reporting on Climate Transition Plans” CDP (2023).

<sup>4</sup> “Disclosure Framework” TPT - Transition Plan Taskforce (2023).

## Reporting 2023 “Suite”

<https://www.autostrade.it/it/esg-sostenibilita>



## 1.2 Navigating our climate transition plan (‘CTP’)

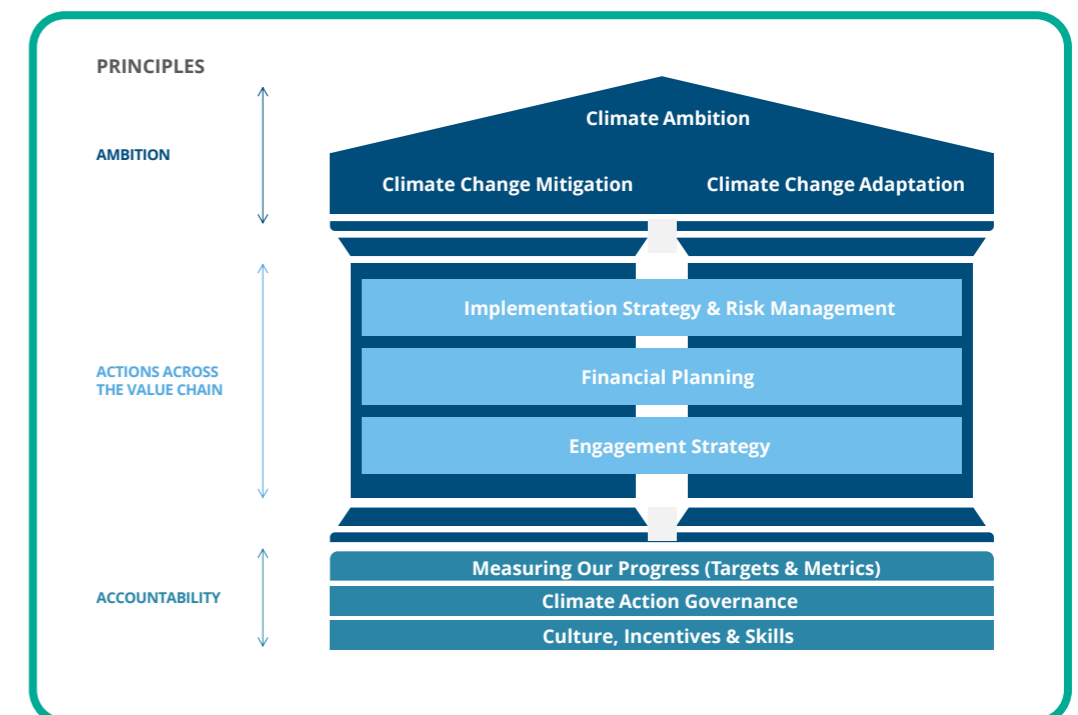


Figure 1 - How to navigate our Climate Transition Plan

Autostrade per l’Italia’s Climate Transition Plan is based on three main principles outlined by the Transition Plan Taskforce (‘TPT’) disclosure framework: ambition, action (along the whole value chain) and accountability.

Climate ambition consists of two main objectives: adaptation and resilience to climate change, and mitigation of climate impacts through the decarbonisation pathway and the advancement of sustainable mobility.

Action plans translate this ambition into concrete and planned steps, supported by financial planning and dialogue with stakeholders.

Finally, accountability provides all the elements essential to ensure a sound implementation of the climate transition plan through structured climate governance and incentive schemes and skill development programmes.





## 2. Climate ambition

As Italy's largest toll road operator, Autostrade per l'Italia Group ('ASPI' or the 'Group') is committed to promoting sustainable, safe and climate resilient mobility. With the sustainability journey started in 2020 ASPI has incorporated two main ambitions into its strategy:

- the mitigation of climate impacts through the reduction of the carbon footprint and the development of sustainable mobility patterns;
- adaptation and resilience of its infrastructure to climate change.

### 2.1 About Autostrade per l'Italia

The Autostrade per l'Italia Group ('ASPI' or the 'Group') is Italy's leading operator of toll road infrastructure, with a network of 2,968 km under concession, accounting for approximately 49% of the entire Italian toll motorway network and is one of the main motorway mobility operators in Europe.

Its network crosses 15 regions and 60 provinces, with 214 service areas, around 4,200 bridges and viaducts and more than 420 km of tunnels and serves around 2.5 million vehicles per day and 4,5 million users.

### ASPI Group

ASPI is an integrated mobility provider along the entire value chain that, through its subsidiaries, operates in the field of engineering and construction services, and in the development of innovative and sustainable mobility systems and services. Activities range from network design, construction and management to research and development of new mobility services, with the aim of improving the customer experience and minimising the company's environmental impact.

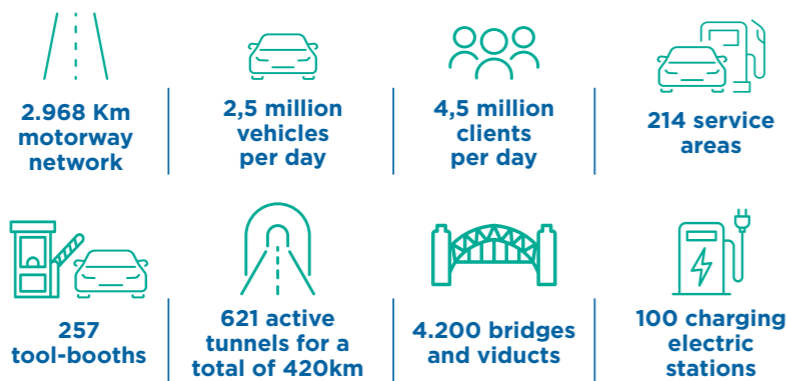
Operations		Leader in design, construction, and management of a safe, sustainable, and resilient motorway network
Engineering		Design-to-sustainability approach for durable and innovative infrastructures, extended to the supply chain
Construction & services		Use of low -impact and recycled materials and systems in construction, with particular attention to the protection of natural resources.
Technology & R&D		Developing and integrating innovative Intelligent Transport Systems for smart mobility
Energy		Producing clean energy using green technologies and systems located along the motorway network
Travelers Services		Developing advanced mobility services, offering sustainable technological solutions designed to improve the all-round travel experience
Clean services		Providing cleaning and maintenance services for forecourts, green spaces and toilet facilities at service areas on the Group's network
Advertising		Commercialising spaces, advertising services and events at service areas
Administrative services		Managing administrative, general and property services for and credit and toll collection activities

Figure 2 - ASPI's Main Businesses





ASPI Network as of 30/06/2024



## 2.2 Adaptation ambition

ASPI is constantly striving to improve the resilience and extend the service life of its ~3,000 km of motorway infrastructure to meet the growing challenges of climate change.

Italian motorways are among the oldest in Europe. About 50% of bridges and viaducts were built before 1970, with about 93% built before 1990. In addition, about 35% of the kilometres of tunnels were built before 1970, with about 78% built before 1990. These infrastructures, fundamental for the country's economic system, are among the busiest and most complex due to the unique geomorphological characteristics of the Italian territory.

ASPI's climate adaptation ambition and business plan focuses on service life extension and improving resilience of critical infrastructures (bridges, viaducts, tunnels, barriers and systems) to adverse climate conditions with the support of innovative and digitalised activities and solutions.

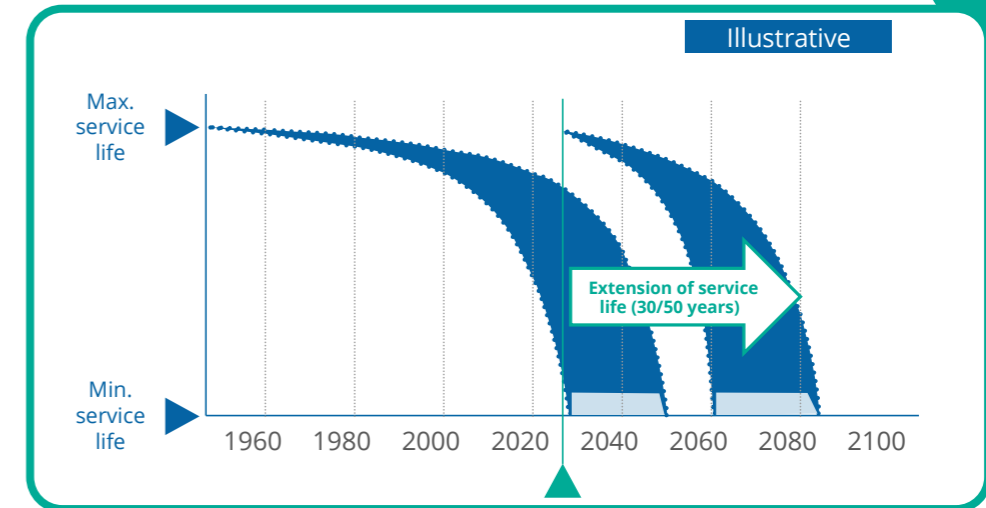


Figure 4 - Service Life Extension (example)

## 2.2.1 Climate Change Adaptation Framework

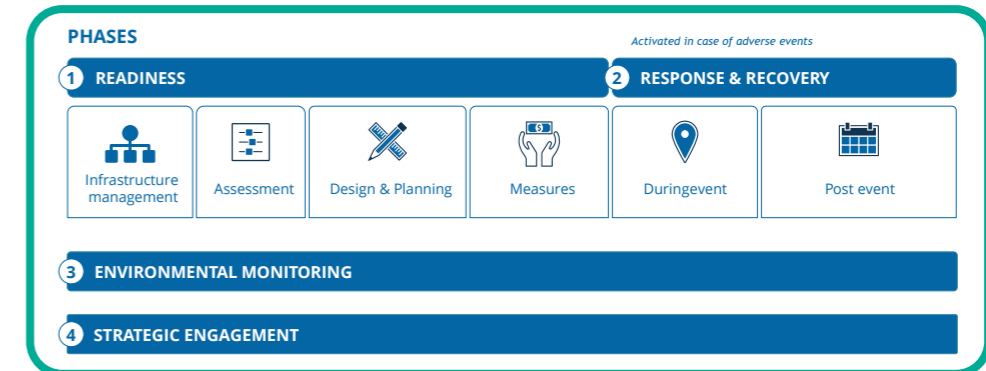


Figure 5 - ASPI's strategic response to climate change: an adaptation framework based on 4 principles

ASPI's strategy for adapting to climate change consists of four key steps, each of which includes specific actions to improve infrastructure resilience and timely response to adverse climate conditions.

1. The first phase, Readiness, includes infrastructure management with digitalised network inventory activities, inspection processes and the Natural Risk Management System (NRMS). This phase also includes the assessment of climate change-related physical risks, the integration of resilience into design and governance structures, and the financing of infrastructure modernisation, upgrading and maintenance plans.
2. The second phase, Response & Recovery, activates upon occurrence of adverse weather events. During the event, business continuity protocols are implemented, preliminary damage assessments are conducted, and emergencies are handled before the final assessment. Following the adverse event, processes are activated for analysing and verifying the effectiveness of operational protocols, identifying areas for improvement, restoring infrastructures and implementing insurance plans and risk transfer procedures.
3. The third phase, Environmental Monitoring, employs advanced and innovative technologies, such as weather radar, satellites and hydrometric sensors, to predict climatic and environmental phenomena, supporting measurement processes for both new and existing assets.
4. The fourth phase, Strategic Engagement, focuses on collaboration and dialogue with national, regional and local institutions. This approach facilitates authorisation procedures, promotes the exchange of data and the development of protocols, and encourages the integration of new regulations and interventions.

More details on individual activities will be provided in the next chapter, "Adaptation Strategy".



## 2.3 Mitigation Ambition and Sustainable Mobility

### 2.3.1 Objectives and priorities

Aware of the important role it plays in the national energy transition, ASPI is committed to an ambitious path aimed at progressively reducing its direct and indirect carbon footprint to achieve net zero status in 2050 in line with the Science Based Target Initiative, with intermediate targets set for 2030. ASPI also intends to take on a role as an enabler of low-emission mobility, committing itself to the construction of electric recharging stations throughout the network and to the identification of solutions and partnerships for the distribution of alternative fuels.

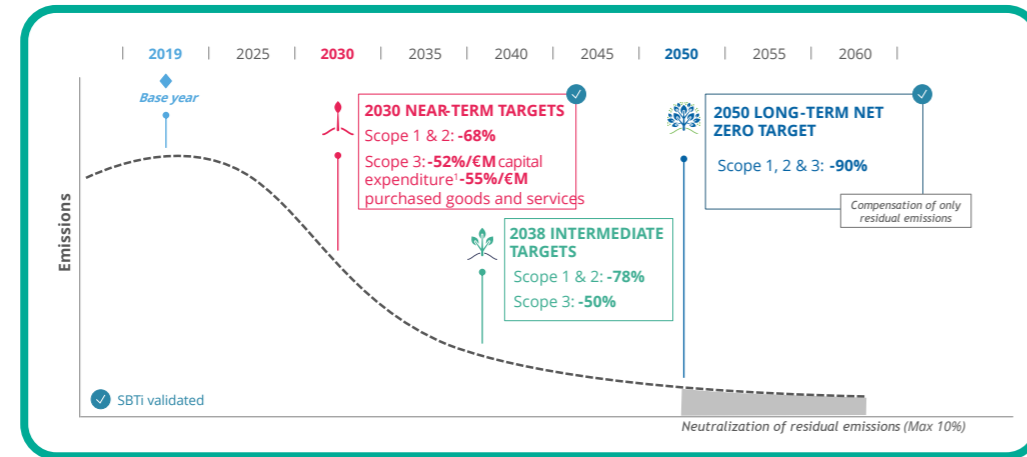


Figure 6 - The Net Zero ambition by 2050 and the 2030 targets validated by SBTi

In 2021, the Group set the baseline for Scope 1, 2 and 3 GHG emissions according to the GHG Protocol, choosing 2019 as the base year. In 2022, the Group joined the Science Based Targets (SBTi) initiative, setting specific GHG reduction targets and participating in the 'Business Ambition for 1.5°C' campaign. In July of the same year, the short-term targets were validated by SBTi, while the long-term targets ("Net Zero", "NZ") were validated in April 2024.

The 'Near-Term' reduction commitments by 2030 declared for the different emission categories and validated by SBTi, are as follows:

- Reduction of absolute GHG emissions from Scope 1 and 2 by 68% by 2030 (baseline 2019);
- Reduction of Scope 3 GHG emission intensity by 52%<sup>5</sup> by 2030 (baseline 2019) for emissions deriving from investments in upgrading infrastructure under concession and 55%<sup>6</sup> for emissions deriving from goods and services purchased as part of the construction business for third parties (non-captive business for AMPLIA Infrastructures S.p.A., below also indicated as "AMPLIA"). More specifically, the reduction in Scope 3 mainly regards emissions from the use of construction materials by Autostrade per l'Italia's contractors and AMPLIA.

In alignment with the evolution of the investment plan, the Group also develops annual intermediate targets. These targets must align to the emission reduction trajectory, considering both short-term and long-term Net Zero targets. The ultimate goal, 'Net Zero' by 2050 - also validated by SBTi, provides for the reduction of all emissions by 90%, with the possibility of neutralising only residual emissions of up to 10% through offsetting projects.

<sup>5</sup> 52% tCO<sub>2</sub>e/€ million as Investment for the development of infrastructure under concession.  
<sup>6</sup> 55% tCO<sub>2</sub>e/€ million as Operating Profit related to infrastructure development for third party customers (non-captive).

The following paragraphs will describe the decarbonisation initiatives identified by the Group.

### 2.3.2 Implications for the Business Model

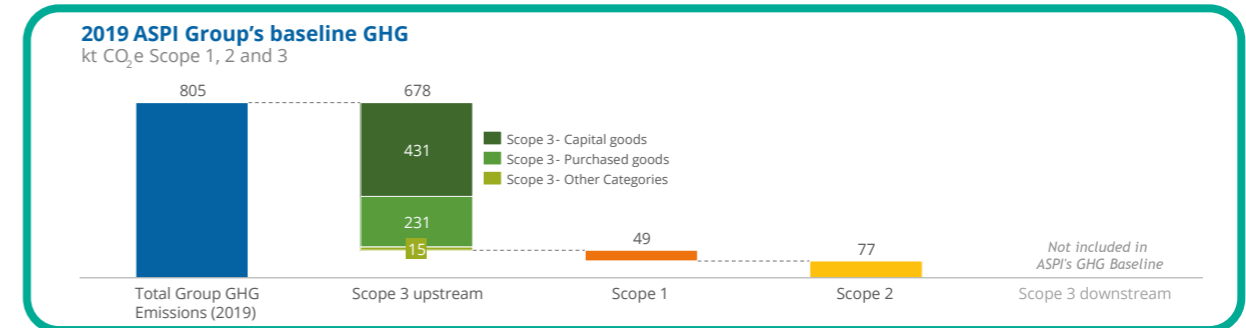


Figure 7 - ASPI GHG emission baseline (2019)

In line with its ambition, ASPI is transforming its business model to significantly reduce direct and indirect greenhouse gas emissions through several key initiatives.

Priorities for the reduction of direct emissions include the electrification of the vehicle fleet and the installation of company charging stations, the use of biofuels, the increased efficiency and/or electrification of fossil-fuelled plants, the production and use of lukewarm asphalt, the procurement and production of certified renewable energy, the so-called relamping with LED technology for network lighting, and the installation of photovoltaic plants for electricity generation.

Levers for reducing indirect 'upstream' emissions (Scope 3) include sustainable design and engineering activities, the use of low-carbon building materials with a focus on concrete, steel and asphalt. On the other hand, indirect 'Downstream' emissions, even though not part of the SBTi validation perimeter, are reduced through support for the development of innovative mobility solutions ('smart mobility') easing traffic congestion and the installation of electric charging stations along the ASPI network to encourage the adoption of electric mobility models, and the implementation of solutions and partnerships for the distribution of alternative fuels.

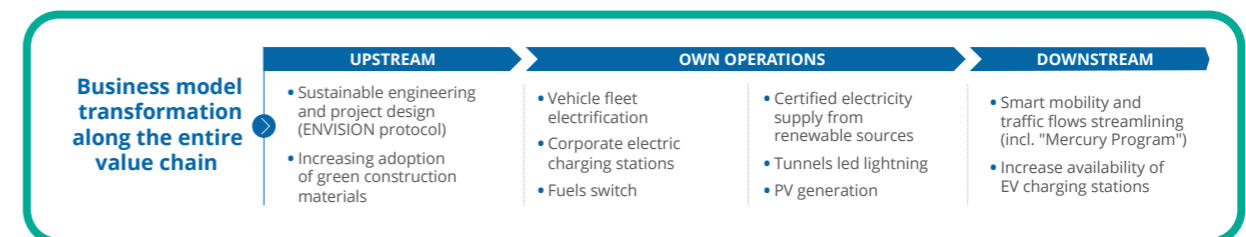


Figure 8 - Emission reduction initiatives throughout the Group's value chain

#### Dependence on external factors

The Group's climate ambition and strategic objectives also depend on exogenous factors. The main ones include macroeconomic factors, industry trends, and the evolution of the value chain. These factors directly influence the implementation strategy and stakeholder engagement.



Among the main ones:

- **Global Economy:** Global economic conditions and their impact on climate investment.
- **Global Decarbonisation:** The transition to net-zero and the infrastructural changes needed to support sustainable mobility.
- **Government Policies:** Regulations and policies aimed at reducing greenhouse gas emissions and regulating public disclosure.
- **Technology and Innovation:** Advances in technology and artificial intelligence.
- **User Trends and Expectations:** Changes in user preferences and expectations for sustainable mobility models.
- **Data Quality:** The availability of accurate data to analyse emissions, monitor progress and ensure transparency.
- **Supply Chain:** Ability for suppliers to adopt sustainable practices.

#### Climate Roadmap and Key Milestones

ASPI has developed an ambitious climate roadmap to swiftly progress from its first sustainability report drafted in 2021 to the Climate Transition Plan (CTP) published in 2024.

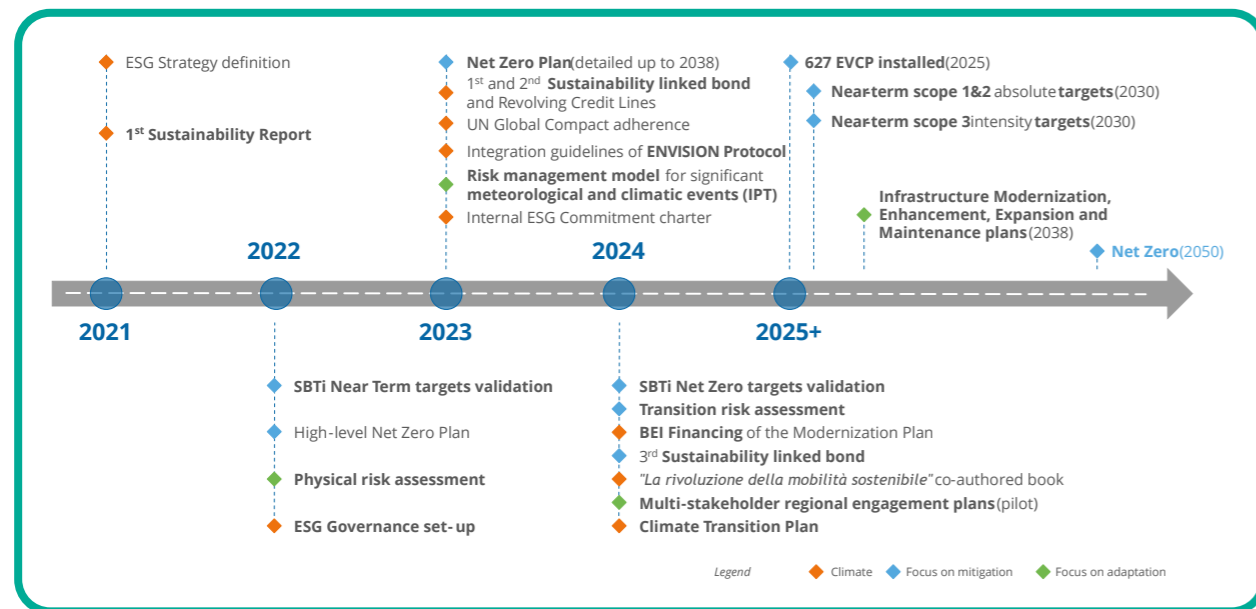


Figure 9 - Climate Roadmap with milestones of the Group's climate journey

## 3. Implementation Strategy and Risk Management

### 3.1 ADAPTATION STRATEGY

#### 3.1.1 Adaptation risks: analysis and impact management

##### Analysis

In Italy, the frequency of extreme weather events is increasing: Italy is the third country in the EU most affected by extreme weather events in terms of economic damage and victims between 1980 and 2022<sup>7</sup>. In 2023 alone, extreme weather events exceeded the damage recorded in the previous four decades by 10%, with the flooding in Emilia-Romagna causing damage of about € 9 Billion<sup>8</sup>. Events such as heavy hailstorms, floods and extreme weather phenomena are increasingly frequent.

Physical risks from climate change (hereafter referred to as "physical risks") can have operational and financial implications for organisations, including acute physical risks (sudden events such as cyclones, hurricanes or floods) and chronic physical risks (long-term climate changes such as sustained temperature increases). These risks can have a direct impact on assets, causing direct damage (e.g. damage to the structure, foundations) and traffic disruptions as a secondary effect (e.g. downtime to repair the asset).

To deal with physical risks, ASPI launched a specific climate risk assessment activity in line with the recommendations of the TCFD (Task Force on Climate-Related Financial Disclosures), including analysis of the vulnerability to climate change of the various assets operated, such as bridges, viaducts, tunnels and the motorway body. In 2022, ASPI assessed physical climate risks, defining business impacts and priority actions to develop mitigation plans. The physical risk analysis included a range of climate risks, including sea level rise, flooding, extreme precipitation, hail, heat, frost, and wind.

To assess the evolution of priority risks, ASPI used climate data provided by the external provider Jupiter Intelligence, which quantifies the environmental risk in five-year intervals from 2020 to 2100, under three different carbon emission scenarios developed by the IPCC<sup>9</sup>: SSP126 (optimistic scenario with a temperature increase of 1.8°C), SSP245 (intermediate scenario with a temperature increase of 2.7°C) and SSP585 (extreme scenario with a temperature increase of 4.4°C). These scenarios allowed focusing on the analysis on the main types of climate risks likely to impact the Group's infrastructure.

In the intermediate scenario (SSP245), the most significant physical risks are extreme rainfall, flooding and hail, while the risk of frost drops by 80% compared to historical data due to rising temperatures.

<sup>7</sup> <https://www.eea.europa.eu/publications/economic-losses-and-fatalities-from>

<sup>8</sup> [https://www.esa.int/Applications/Observing\\_the\\_Earth/Satellites\\_map\\_aftermath\\_of\\_Emilias-Romagna\\_floods](https://www.esa.int/Applications/Observing_the_Earth/Satellites_map_aftermath_of_Emilias-Romagna_floods)

<sup>9</sup> Intergovernmental Panel on Climate Change.



More specifically, the analysis revealed the following findings:

- **Bridges:** high exposure to extreme rainfall, medium exposure to flooding and low exposure to hail and frost.
- **Tunnels:** low exposure to flooding, extreme rainfall and frost.
- **Motorway body:** high exposure to extreme rainfall and medium exposure to flooding; low exposure to hail and frost.

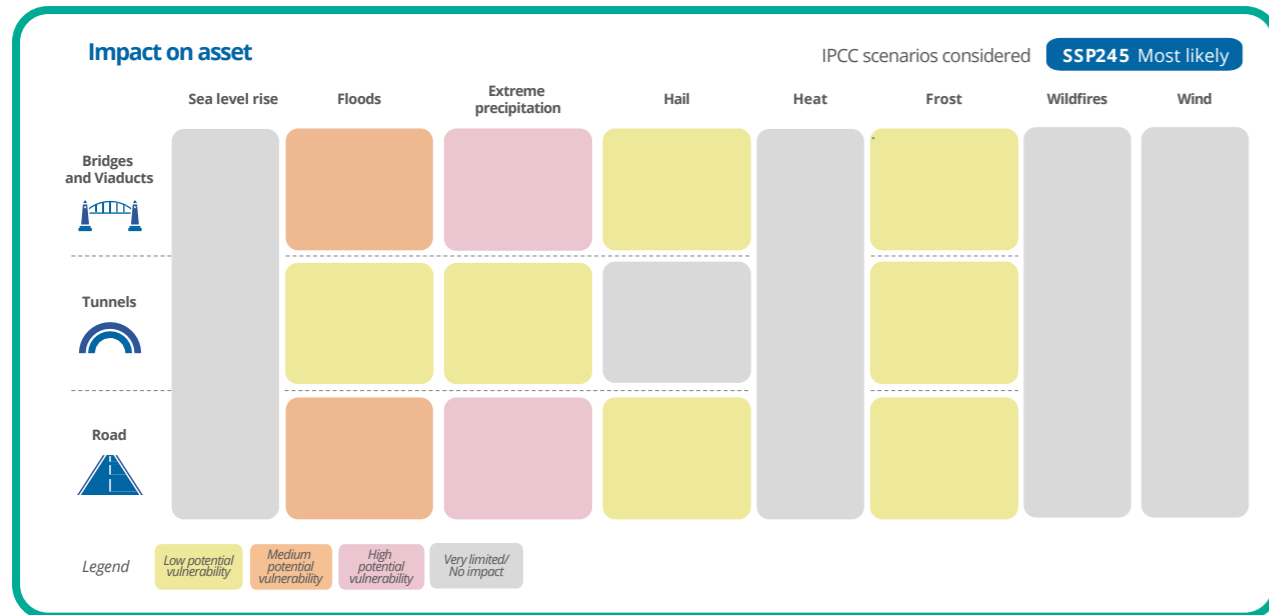


Figure 10 - Physical climate risk assessment of the Group's main assets

Likewise, the hydrogeological risk, which characterises Italy with 70% of all landslides reported in Europe<sup>10</sup>, is exacerbated by the other weather phenomena analysed, thus leading to an increased risk for the infrastructure.

### Risk management

The following section, '3.1.2 Description of the Adaptation Framework' will deep dive into Autostrade per l'Italia's risk mitigation strategy.

#### 3.1.2 Description of the Adaptation Framework

ASPI's strategy to adapt to climate change can be summarised in a framework divided into four phases (**Readiness, Response & Recovery, Environmental Monitoring, Strategic Engagement**), described in the chapter 'Climate Change Adaptation Framework'. Each phase provides for a series of specific activities and actions implemented by the Group to improve infrastructure resilience and ensure timely response to adverse climate events.

Between 2006 and 2023, ASPI had to cope with 307 adverse weather events that required complex traffic management to ensure business continuity and, in some cases, the closure of motorway junctions or sections. These events, recorded and managed on the ASPI network, were caused by different types of meteorological events such as flooding, landslides, hail, fog, snow and freezing rain. Of these, 139 were floods, accounting for almost half of the total incidents.

<sup>10</sup> Landslides and floods in Italy: hazard and risk indicators - 2021 Edition ISPRA.

One of the most critical and recent floods was the one that occurred in May 2023 in Emilia-Romagna, which ASPI handled promptly and effectively. For a detailed analysis of the event, ASPI's response and lessons learned, please refer to the in-depth case study 'Flood in Emilia Romagna' on page 24.

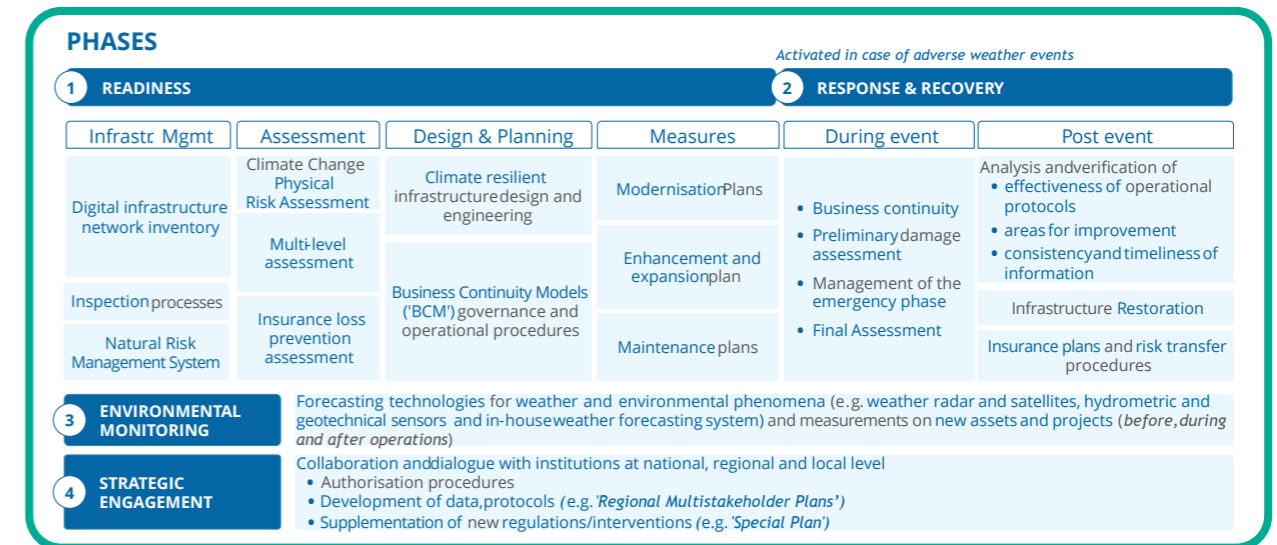


Figure 11 - Climate Change Adaptation Framework: detail

### READINESS

The readiness phase includes all the actions and measures required to collect and update information on the infrastructure and its context, to define the operational and governance processes for managing business interruptions, to design projects embedded with sustainability principles, and to extend the service life of assets through investments in modernisation, upgrading, widening and maintenance to ensure full operation.

#### Infrastructure Management

- **Digital inventory of the infrastructure network:** A complete logbook that collects detailed data on all the elements of the infrastructure, fostering efficient management, monitoring and maintenance granting immediate access to the information regarding the assets of the network (bridges, viaducts, tunnels...). In this context, the ARGO system represents a fundamental innovation. A crucial element of the strategic and technological evolution programme undertaken by Autostrade per l'Italia, ARGO stands out in the management of network assets and the use of data assets. Developed by MOVYON in collaboration with IBM, ARGO is a digitalised register that integrates all information in a single database, enabling the digitalisation of periodic checks and inspections, instrumental monitoring and the scheduling and management of maintenance operations, in line with regulatory evolution and stakeholder needs. The platform allows quick access to all information related to the assets, from their status to the complete digital model, from the inspection and maintenance history to the entire document archive, including projects and interventions carried out over time.
- **Inspection Processes:** Visual and instrumental assessments of motorway infrastructure are essential to ensure safety, functionality and regulatory compliance. These checks include detailed inspections to detect deterioration or damage, and structural analyses to verify the integrity of the assets. The process ensures compliance of all structures with safety standards and regulations, allowing risks to be identified and preventive maintenance to be planned. The use of advanced technologies, such as sensors and digital



monitoring systems, improves real-time data collection, allowing for timely interventions.<sup>11</sup>

- **Natural Risk Management System:** ASPI's Natural Risk Management System ('NRMS') defines a governance model to manage risks from natural disasters, with the aim of ensuring safety of users and the operation of the infrastructure. The NRMS integrates components for managing the risks of floods, earthquakes, landslides and snow, and promotes corporate governance through risk identification, management and monitoring processes, facilitating sharing and coordination between the different players involved.

#### Assessment

- **Climate change physical risk assessment:** please refer to the in-depth analysis in section 3.1.1 "Risks and opportunities: analysis and mitigation".
- **Multilevel assessment:** The assessments of bridges, viaducts and overpasses are conducted in compliance with the "Guidelines for Risk Management, Safety Assessment and Monitoring of Existing Bridges" of the Higher Council of Public Works (Consiglio Superiore dei Lavori Pubblici - CSLLPP), updated in 2022. The monitoring of tunnels is based on the 'Tunnel Inspection Manual' of the Ministry of Infrastructure and Transport (MIT) and the 'Guidelines for Risk Management, Safety Assessment and Monitoring of Existing Tunnels' of the CSLLPP of 2022. The monitoring activities use a risk-based system with a multi-level approach: census of assets (LO), visual inspection (L1), determination of the Class of Attention (L2), preliminary assessments (VAL3) and accurate inspections (VAL4). As of 31 December 2023, visual inspections and Class of Attention assessments have been completed on about 4,400 bridges, viaducts and overpasses, and accurate inspections of tunnels have continued, with more than 28,000 inspections carried out, roughly 20,300 of which on minor assets, barriers, water management infrastructure and systems.
- **Insurance loss prevention assessment:** Every year, the insurance company assesses the insurability of motorway infrastructure. This process includes focus with internal company structures, analysis of procedures, identification of vulnerable infrastructure and sample assessments.

<sup>11</sup> Example of most recent procedures and operational instructions in ASPI's company internal system regarding management of adverse climate events such as landslides and floods include the Operational Manual - HSE Risk Prevention Standard, the Risk Assessment Methodology in Road Safety, and the Operational Instruction - Operational Guidelines for Flood Risk Management.

#### Design and Planning

- **Sustainable and resilient infrastructure design:** The design of new infrastructure and the expansion of existing infrastructure is a key element of Autostrade's strategy to ensure a modern and climate resilient infrastructure. The Envision<sup>12</sup> protocol has been applied in infrastructure evaluation and design since 2022, supported by internal guidelines for its application. Finalised in March 2023, the Guidelines were developed with the support of Envision experts and represent a methodological tool for designing sustainable motorway infrastructure. During 2024, verification activities for the application of the Envision Protocol to the interventions of tunnel assessment will be carried on.

In 2022, the Group was awarded the Envision Platinum level certification for the Passante di Bologna, an activity that supported the development of the internal guidelines. In 2023, ASPI also successfully completed the Envision certification process for the design of two projects included in the Investment Plan: the Gronda di Genova, which received the Envision Gold Award, and the modernization project for A13 Bologna-Ferrara motorway, which received the Envision Silver Award. In addition, the certification is also being obtained for the new Bellosguardo service area, located in the Barberino di Mugello-Firenze North section, and for a tunnel (still being determined) included in the Assessment Plan.

- **Business Continuity Models (governance and operational procedures):** ASPI's Business Continuity Model (BCM) aims to strengthen the company's operational resilience by introducing specific tools to support the business and structuring a rapid and effective response against any potential business disruption. The model encompasses all processes, tools and mechanisms necessary to protect the organisation from business disruptive events.

The framework is divided into four main phases:

- **Before:** Readiness and Prevention - Includes business interruption mapping, BCM governance, cause and gap analysis, and heat map and assessment matrix analysis.
- **During:** Incident Management - Includes the response plan, escalation mechanisms and communication plans to internal and external stakeholders.
- **After:** Recovery and Follow-up - Includes, the development of the recovery plan, continuous monitoring and ex-post evaluation of the event occurred, in order to identify remediation actions for the improvement of the business continuity framework and protocols.
- **Non-stop:** Test & Train - Includes the planning and performance of periodic operational exercises and information and training initiatives intended for internal staff and third parties that work with the Group.

<sup>12</sup> The Envision protocol is a collaboration between Harvard University's 'Zofnass Program for Sustainable Infrastructure' and the 'Institute for Sustainable Infrastructure' (ISI). Envision is the first rating system for the design and construction of sustainable infrastructure assets, assessing the sustainability of infrastructure based on 64 credits in five categories: quality of life, leadership, resource allocation, natural world and climate resilience. This protocol is particularly relevant for environmental sustainability, as it promotes the reduction of the ecological footprint and adaptation to climate change.





In December 2022, ASPI had its Business Continuity Management System certified according to the international standard ISO 22301:2019 'Security and Resilience - Business continuity management systems'. ASPI, for the processes relating to Asset Operation (e.g. emergency management), has positioned itself among the first companies in the sector to achieve this important award. Confirming its awareness and focus on achieving operational and service standards in line with the principles of resilience and business continuity, in 2023 the company extended the scope of the certification to Asset Maintenance and in 2024 began extending it to the Asset Construction and Service Areas processes, to have all "core" processes certified, thus demonstrating its commitment to business protection and continuity.

#### Investments and maintenance

The investment and maintenance plan of the network guarantees the operation of the motorway system under concession even during extreme weather events.

- **Modernisation and digitalization plan:** includes operations to restore operations, extend service life, enhancing safety and monitoring with innovative and digitised components. For example:
  - Work on assets (e.g. bridges and viaducts, pavements, motorway body and restoration of water management and slope functions)
  - Safety Barriers (Noise Reduction Plan, Blue Catalogue, Integautos, Embankments and other safety barriers)
  - Mercury programme and technology fittings
  - Tunnel Assessment Plan (e.g. TRS Tunnel Renewal Strategy)
  - Other modernisation measures (service areas, TSP)
- **Expansion and upgrade plan:** includes interventions aimed at ensuring the correct development of the infrastructure in the hydrogeological context. For example:
  - Geotechnical slope stabilization
  - Interventions on water courses
  - Rainwater drainage quantity and quality management
- **Maintenance plan:** includes all periodic adjustments to preserve and maintain operations. For example:
  - Restoration of the water management network (e.g., ditches, gutters, pipes)
  - Cleaning of rainwater runoff infrastructure
  - Maintenance of the hydraulic functions of manholes
  - Pavement renewal plan

#### Readiness response & recovery

The response and recovery phase, triggered by adverse weather events, includes the implementation of the operational management procedure, preliminary assessments and internal escalation mechanisms. The effectiveness of protocols is verified after the event, while areas for improvement are documented and recovery actions are planned if necessary. Post-event activities ensure resilient management and improve future response.

#### During the event

During an incident that causes a business interruption, the Process Owner, the Business Continuity Agent (BCA) and the operational teams activate the internal procedure according to the protocols defined in the business continuity model. The BCA performs a preliminary assessment of the significance of the incident and transfers the results to the Process Owner and the Business Continuity Manager to activate any escalation mechanisms and ensure information flows.

There are four escalation levels: low (L1- Warning), moderate (L2- Intervention), high (L3- Emergency) and maximum (L4- Crisis). Low and moderate level events are handled by the operational team with the process owner and the BCA, while high and maximum level events also trigger the activation of the Crisis Committee and an escalation in communication flows to internal and external stakeholders.

The BCA supports the Process Owner in coordinating the relevant departments for managing the emergency and restoring normal operations, ensuring the correct application of protocols and ensuring the involvement of key stakeholders. Upon activation, the Crisis Committee oversees the emergency, assesses the impacts and ensures adequate internal and external communication.

The Business Continuity Agent defines and updates, in agreement with the competent corporate departments, the business continuity framework and protocols, to support incident prevention and crisis management.

#### After the event

As part of motorway infrastructure management, post-event activities are crucial to ensure the continuous improvement and resilience of the network. Upon occurrence of a disruption event:

- The effectiveness of operational protocols adopted, and internal and external information flows are verified.
- Areas for improvement are identified and formally documented as 'lessons learned' to optimise future operational procedures.
- The consistency and timeliness of the information gathered and shared during the event is checked, ensuring its accuracy, timeliness, clarity and completeness.

Should the analysis of the event reveal damage requiring long-term structural intervention, an extraordinary infrastructure restoration and maintenance plan is designed, planned and implemented. This methodical approach ensures that the motorway network remains safe, functional and compliant with regulations, improving response to future events and protecting infrastructure investments.



### Insurance plans and risk transfer procedures

Autostrade per l'Italia's adaptation strategy to adverse weather events includes the selective purchase of annual 'All Risks' insurance policies. These policies allow transferring part of the financial risks associated with natural disasters such as earthquakes (not climate-related) but also floods, landslides, hailstorms and fires (adverse weather events).

As part of its adaptation strategy, the Group prioritises the readiness and response & recovery phases, reserving insurance coverage for extraordinary events only. Such events include major incidents likely to have a significant impact on operations, such as catastrophic floods that undermine infrastructure foundations or extensive fires requiring major reconstruction. The organisation's commitment to resilience is further reinforced by its approach to adopting high deductibles, which minimise overall insurance costs. This strategic decision not only underlines the Group's confidence in its preventive measures and robust infrastructure, but also aligns with its financial management objectives.

The analysis of insurable risks is quantitative; specifically, an actuarial model is used to analyse loss frequencies and understand the best premium/retention ratio, along with catastrophe models to quantify peak risks and establish the policy cap. The approach to markets is characterised by total transparency, also through a claims prevention and risk assessment programme carried out by insurance companies in agreement with Autostrade per l'Italia's technical departments.

The flood in Emilia-Romagna occurred in May 2023 is an example of an event where Autostrade per l'Italia's preventive strategies and rapid emergency response minimised traffic disruption, enabling a rapid and complete reopening of the roads involved (5 days). In such cases, insurance compensation plays a minimal role, confirming Group's belief in operational excellence and proactive management to mitigate climate-related impacts.

Moreover every year, Autostrade per l'Italia reassesses its insurance covers based upon an updated risk assessment. The Group is also considering contingency models to deal with the expected increase in severe adverse weather events in the medium-long term.

### ENVIRONMENTAL MONITORING

Monitoring systems and procedures play a crucial role in adapting to climate change by providing accurate forecasts and facilitating timely responses through active monitoring. Supported by artificial intelligence, these systems use advanced, digitised processes and technologies, such as internalised weather forecasts, weather stations, innovative radar and satellite systems, and hydrometric and geotechnical sensors.

The ARGO platform, already introduced in the readiness phase, integrates information from monitoring systems. These systems use sensors installed at strategic locations of the structures to provide non-stop near real-time data on the structural response of assets. The monitoring systems include a network of sensors, data acquisition and transmission systems, and a central system for archiving, analysis and structural diagnosis.

In the geotechnical field, instrumental surveillance of relevant sites (embankments, trenches, natural slopes), retaining structures and rock protection systems (adhesion nets, rockfall barriers) is performed by using more than 530 instruments (inclinometers, piezometers, crack gauges, etc.) covering more than 100 different sites. Moreover, 2100 relevant sites are monitored through visual geotechnical surveillance activities.

ASPI's in-house weather forecasting service, set up in 2011, supports the coordinated management of adverse weather events with constantly updated motorway-specific information. It assesses weather data daily and provides the Regional Headquarters concerned with customised information flows to plan preventive activities and manage emergencies.

In addition, the monitoring of radar/satellite images, hydrometric and geotechnical sensors (known as 'Nowcasting') allows following the large-scale progression of weather events, locate current precipitation and its intensity, and monitor air temperature, humidity and road conditions.





## STRATEGIC ENGAGEMENT

Strategic engagement is crucial to achieving the Group's climate change adaptation and resilience goals. This approach involves active engagement with institutions and regulators at national, regional and local levels, through open dialogue on key activities such as authorisation procedures, data exchange, protocol development and the integration of new regulations and action plans.

A tangible example is represented by the Multistakeholder Regional Plans, on which a pilot project focused on the Emilia-Romagna territory is currently underway to develop protocols for data exchange, modelling and sensor systems, as well as to provide forecasts for alert procedures in the event of floods and post-event assessments in case of seismic events. This project involves several stakeholders, including the Emilia-Romagna Region, the Geological Service, the Agenzia Prevenzione Ambiente Energia (ARPAE), the Regional Civil Protection and the Universities of Parma and Bologna (please refer to the in-depth analysis "Multistakeholder Regional Plans").

Another example is the 'Special Plan' of the Extraordinary Commissioner for Reconstruction, a programme of urgent interventions for the mitigation of hydrogeological risk and the reconstruction of infrastructures in areas affected by adverse climatic events, such as Emilia-Romagna, Tuscany and Marche. The plan requires an extensive phase of identification and implementation of the interventions required, involving a wide range of key stakeholders, including the Emilia-Romagna Region, the Agency for Territorial Safety and Civil Protection, several universities, the Carabinieri Command Unit for Forest Protection and the National Association of Municipalities.

### USE CASE | Regional Multistakeholder Plans

Following the floods in Emilia-Romagna in May 2023, ASPI started a series of meetings with the Regional government and environmental agency (Agenzia Prevenzione Ambiente Energia - ARPAE) to define a pilot project aimed at developing an innovative integrated control system.

This system encompasses both monitoring systems and environmental event management procedures, and is based on the close cooperation of various stakeholders at regional level, including:

- Emilia-Romagna Region (geological service)
- Agenzia Prevenzione Ambiente Energia Emilia-Romagna (ARPAE)
- Regional Civil Protection Agency
- Universities of Parma and Bologna

The aim is to develop data exchange protocols, stronger flexibility and innovative sensor systems, to move from an "Early Warnings" plan based on weather bulletins and hazard maps, to an advanced warning system. This new system will be based on "Nowcasting" weather forecasts, real-time measurements, runoff models and the functioning of water drainage systems.



Specifically, in the Emilia-Romagna pilot case, two risk areas have been considered:

- Flood risk - with a focus on improving risk forecasting through an early warning procedure
- Landslide and earthquake risk - with a focus on improving post-event assessment procedures during earthquakes

The main targets in the short (immediate) and medium term (1-2 years) for the above-mentioned risks include:

- **Floods:**
  - In the short term, the aim is to collect accurate and timely information to manage motorway operations in the event of floods through real-time monitoring of levels at the locations identified as most at risk. Another objective is to improve coordination with the Civil Protection, ANAS and the Prefectures in emergency and post-emergency management.
  - In the medium term, the aim is to obtain official forecasts of water levels at ASPI assets to implement early-warning procedures and forecast the evolution of relevant events, to determine the attention and alert thresholds necessary to activate the procedures related to the different levels of warning, and to acquire the information necessary to develop the ASPI network upgrading plans in areas with severe water management system criticalities.
- **Landslides and earthquakes**
  - In the short term, the aim is to expand knowledge related to the areas hosting the ASPI network, through landslide risk maps and meso-zoning in emergency management operational procedures.
  - In the medium term, the aim is to define procedures for post-event audits that can be implemented in other critical areas of the ASPI network.

As of June 2024, the pilot project is being refined and improved. These results will be consolidated in the second half of the year, with the ultimate goal of extending the same operational model throughout Italy in the coming years, starting with the regions most exposed to adverse weather events.



### USE CASE | Flood in Emilia-Romagna EVENT

In May 2023, the Emilia-Romagna region was hit by two significant weather events in less than twenty days, with monthly cumulative rainfall exceeding 450 millimetres in several locations.

The first event occurred between May 1st-4th, with rainfall exceeding 150 mm in 24 hours and an estimated recovery time of more than 100 years. The second occurred two weeks later, between 16 and 18 May, with rainfall exceeding 300 mm in 48 hours and a return period of 200 years. Given the severity of the events, the Council of Ministers declared a State of Emergency on 23 May 2023.

### THE GROUP'S INITIATIVES TO COPE WITH THE EVENT

Two main initiatives were promptly implemented by the Autostrade Group because of the recurring events:

- The A14 motorway and the D14 junction were closed to traffic to minimise personal injury on the motorway, except for emergency vehicles, whose access was constantly guaranteed
- A task force of 600 people and around 200 vehicles was mobilised to restore traffic flow as quickly as possible

Specifically, this intervention allowed:

- Re-opening the D14 junction only 8 hours after closure
- Reopening the entire A14 motorway within 30 hours from the closure, with the most damaged section (Forlì-Cesena) initially reopened with one lane in each travel direction
- Restoring all 6 lanes of the most affected section of the A14 motorway within 5 days from the event

Autostrade per l'Italia's prompt emergency and operational response prevented motorway injuries and was publicly praised by the local authorities, including the Prefectures, the Emilia-Romagna Region and the municipalities.

### POST-EVENT DAMAGE ASSESSMENT

The May 2023 flood is one of the most significant weather events that has hit Italy in recent years, leading to the overflowing of 21 rivers and causing considerable damage, not only to people (16 dead and 23,000 displaced), but also to the motorway infrastructure, affecting 200 km of the network.



Figure 12 - Map of the area concerned

Specifically, the most impacted sections were the A14 motorway (between Bologna San Lazzaro and Rimini Nord) and the D14 junction (Ravenna-bound).

The assets damaged:

- 3 km of traffic divider barriers
- Over 10 km of side edge barriers
- 50,000 square metres of paving
- Over 10 km of motorway embankment and water drainage systems
- Over 30 km of fence network
- 7 variable message signs
- the system engineering of the Forlì tollgate

For 2023, approximately € 11 million has been budgeted for motorway restoration, with a further € 3 million budgeted for the first half of 2024.

### LESSONS LEARNED

In the context of its network protection initiatives, besides the considerable investments made to improve the infrastructure so as to reduce its vulnerability through modernisation, widening, upgrading and maintenance, ASPI has long since begun assessing the vulnerability of the infrastructure in relation to the hydrogeological and hydraulic context it is built on, with the ambition of increasing the knowledge of the local characteristics and adopting an innovative integrated control system (monitoring systems and environmental event management procedures).

In the aftermath of the May 2023 flood, to maximise the safety of existing motorways and improve the Group's ability to respond effectively and efficiently to major climate events, ASPI set up a fit-for-purpose Integrated Project Team (see 'Climate Action Governance' for more information) to develop a specific governance protocol.

This protocol is designed to effectively anticipate, respond to and manage the potential negative impacts of weather events, such as floods and landslides, on ASPI's operations. It aims to enhance internal processes, strengthen prevention and operational response capacity, and ensure more effective and timely management of critical situations.

Among other things, all the above materialises thanks to the improvement of warning and forecasting systems for the early detection of adverse weather events through a more synergetic and continuous collaboration with institutions to improve response protocols, clarify responsibilities and optimise the continuous exchange of data (see 'Regional Multistakeholder Plans' for more information).



### 3.1.3 Future strategic priorities for adapting to climate change

ASPI's future strategic priorities in the field of climate change adaptation focus on several key areas to ensure the resilience and sustainability of infrastructure.

- **Modernisation, upgrading and maintenance plans:** ASPI is committed to ensuring top-tier infrastructure maintenance, extending its service life and ensuring maximum uptime.
- **Technologies for monitoring and forecasting weather events:** The implementation of artificial intelligence solutions and the enhancement of periodic inspections improve the accuracy of weather forecasts and the timeliness of interventions.
- **Operational processes for responding to climatic and landslide events:** Consolidation of procedures developed in snow risk management and application in the event of hazardous situations related to other weather and landslide events, improving the effectiveness of the operational response.
- **Stakeholder Engagement Initiatives:** Promotion of open and transparent communication with all stakeholders, fostering the exchange of information crucial for climate risk management.
- **Adaptation Targets:** Definition and monitoring of specific climate adaptation key performance indicators (KPIs).

## 3.2 Mitigation Strategy

### 3.2.1 Business Model Transformation

ASPI has developed a clear strategy to achieve its direct and indirect carbon footprint reduction targets by 2030, in line with SBTi standards, and by 2050, in line with the long-term 'Net-Zero' goal. The strategy includes initiatives to reduce Scope 1, Scope 2 and Scope 3 emissions through different operational levers.

#### a. REDUCTION OF SCOPE 1 AND SCOPE 2 EMISSIONS

##### Short-term targets (2030)<sup>13</sup>

- **Target:** 68% reduction in Scope 1 and 2 emissions by 2030 compared to 2019 levels.
- **Levers of action:**
  - **Electrification of the vehicle fleet:**
    - Electrification of company cars and, progressively, vans, and light trucks
    - Installation of company electric charging stations
  - **"Fuels Switch":**
    - Replacement of diesel boilers with LPG, CNG and/or electric heat pumps
    - Conversion of plants from BTZ to LNG/Methane and inert coverage
    - Use of biofuels
  - **Renewable energy:**
    - Procurement and production of certified renewable energy
    - Installation of photovoltaic systems for electricity generation
  - **Energy efficiency:**
    - Relamping with LED technology for network lighting
    - Production of warm asphalt
    - Other energy-saving initiatives in offices and buildings

<sup>13</sup> Expressed in kt CO2e with 100% scope coverage.

#### Intermediate Targets (2038)

- **Additional levers:**
  - **Electrification of the HGV fleet;**
  - **"Fuels Switch":**
    - Conversion of heavy off-road trucks to alternative fuels (e.g. HVO).
  - **Energy efficiency:**
    - Improving the energy efficiency of buildings and operations (e.g. motorway toll gates).
  - **Biometane:**
    - Use of biomethane for cogeneration.

#### b. REDUCTION OF SCOPE 3 UPSTREAM EMISSIONS

ASPI has identified specific strategies to reduce Scope 3 'upstream' emissions, focusing on capital goods and purchased goods and services.

##### Short-term targets (2030)<sup>14</sup>

- **Target:**
  - 52% reduction in emissions from capital goods per million euro of capital expenditure.
  - 55% reduction in emissions from purchased goods and services per million euro of operating profit.
- **Levers of action:**
  - **Sustainable building materials:**
    - Use of recycled steel (EAF Scrap Steel),
    - Use of circular and low-emission concrete,
    - Production and use of warm asphalt.
  - **Sustainable engineering:**
    - Development of core skills in sustainable design and engineering in line with state-of-the-art protocols (e.g. Envision).



<sup>14</sup> Expressed in kt CO2e with 70 % scope coverage.



### c. SUSTAINABLE MOBILITY INITIATIVES

ASPI is committed to reducing Scope 3 downstream emissions (not included in the emission baseline) through the development of charging infrastructures for electric vehicles and smart mobility projects, with the aim of playing a key role in the development of innovative sustainable mobility models. Specifically, ASPI's efforts focus on:

- **Development of charging infrastructure for electric vehicles:** Expansion of the charging infrastructure on its motorway network through Free to X's activities and know-how, with a planned increase in motorway coverage beyond the 100 stations already installed which guarantee a charging point every 50km.
- **Easing traffic congestion and reducing the carbon footprint:**
  - Introduction of advanced services for intelligent mobility ('Smart Sustainable Mobility') based on vehicle-infrastructure interaction technologies, including dynamic speed management: (optimal speeds are suggested based on specific mobility criteria) and **dynamic lanes**, that allows the optimization of road use by adjusting traffic flow and lane travel direction according to real-time conditions, as implemented in the Milan section of the A4 Torino-Trieste.

The 'Smart Sustainable Mobility' initiatives are part of the larger 'Mercury' project, which is detailed in the next section.

#### USE CASE | Mercury. Smart Sustainable Mobility

ASPI's response to the revolution of mobility systems brought about by decarbonisation, digitalisation and new transport services is enshrined in the Mercury - Smart Sustainable Mobility programme, part of the Industrial Plan.

The objectives of the programme are multiple: contribute to the modernisation of assets by extending their service life, improve traffic flow by increasing safety, and prepare the network for new automated vehicles, thus actively contributing to decarbonisation and energy transition.

The Programme is structured in 5 clusters covering aspects of network technological development and sustainability, implemented by Autostrade per l'Italia together with the Group's subsidiaries (mostly Movyon, Tecne, Free-to-X and Elgea):

- **Connected Infrastructure:** includes initiatives to implement technologically advanced solutions that support the activities of the other clusters:
  - IoT sensor networks: used, for example, for structural health monitoring (SHM);

- **Passive wired infrastructure:** essential for data transport, it enables the creation of high-speed (10G) communication systems with fibre-optic links and the modernisation of the network ensuring flexibility, efficiency, reliability and scalability;
- **5G private wireless networks and C-ITS systems:** intended for infrastructure-to-everything (I2X) communication;
- **Applications for the collection and management of traffic data:** they enable better mobility management and the exchange of information for the coordinated management of road operations;
- **User messaging management:** using traditional systems such as Variable Message Signs, radio channels, Apps and vehicles connected via physical or virtual Road Side Units (RSUs).

- **Intelligent Roads:** provides for the implementation of different ITS (Intelligent Transportation Systems) initiatives, such as solutions for traffic detection, structure monitoring, data transmission, processing and communication, dynamic lane management and infomobility. These initiatives aim to improve traffic safety, traffic control, quality of mobility and provide information and assistance to users during journey planning. The project fulfils and broadens the Smart Road requirements as per Decree of MIT n.70 of February 28, 2018;
- **Flexible Pricing:** aims to make toll payment mechanisms more flexible, increasing the number of payment options and simplifying operations. The charging system becomes a policy tool (pricing) to incentivise sustainable behaviour, multi-modality and to mitigate traffic disruptions such as queues and congestion;
- **Green Solutions:** focuses on innovations needed to support the energy transition of vehicles. It includes the installation of high-powered electric charging stations, the distribution of compressed hydrogen and LNG, and the generation of electricity from renewable sources through photovoltaic systems in motorway areas;
- **Urban Mobility:** develops systems that integrate motorway mobility with metropolitan areas, customising the journey. It includes solutions such as parking reservation and payment, the use of MaaS (Mobility-as-a-Service) systems, the management of intermodality with local public transport (LPT) systems, and the optimisation of traffic light control.



The macro-projects, reported in the various clusters, are being tested and rolled out. Below are the initiatives launched in 2023/2024:

- **The first 52 km of “smart road”:** 26 km of the motorway section between Firenze Nord and Firenze Sud in both travel directions and a further 26 km on the Bologna urban node, enabling the latest generation of cars, equipped with Car2X technology, to ‘communicate with the road’, exchanging real-time information on traffic conditions and the section of motorway being travelled.
- **Autonomous driving tests:** through a system that allows the vehicle to communicate with the infrastructure even without a satellite signal. Initially, tests were conducted in a protected environment, while the first tests on the highway network were carried out in the “Le Croci” Tunnel between Calenzano and Barberino, a tunnel currently closed for renovation works. Another trial was launched on the A26 with open traffic to test the vehicle’s ability to read the road and move autonomously at high speeds and in complex contexts. ASPI was the first concessionaire to authorize Level 3 autonomous driving tests on its roads in accordance with the Smart Road Decree.
- **Falco Programme:** the use of remotely controlled drones and subsequent real-time transmission of video streams directly to the Radio Information Center was successfully tested, allowing for the monitoring of traffic conditions, even on motorway sections not fitted with cameras. The initiative, unprecedented in Italy, was launched in Liguria and stands out for the number of flight hours and the characteristics of the test, which included night flights and the monitoring of special transports at work sites on certain sections of the A26 and A10 motorways. With this technology, the Group aims to supplement the existing system of cameras and sensors for traffic monitoring.
- **HGV control programme:** on the Milan-Bergamo section of the A4 motorway, at the control point dedicated to Special Transport and Heavy Goods Vehicles at the East Milan tollgate, the Group will use a new verification tool, namely the laser with 3D scanning and static weighing system, which identifies the mass and volume of vehicles in transit.
- **Kinetic Energy Harvesting from Vehicles (KEHV) project:** the world’s first motorway test using a technology platform capable of transforming the kinetic energy of decelerating vehicles into electricity, otherwise dissipated as heat at the brakes. Tests started in the Arno Est service area on A1, and will continue over the next few months, including testing on a tolling track.

### 3.2.2 Transition risks and opportunities: analysis and management

The Autostrade per l’Italia Group incorporates the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) and the International Sustainability Standards Board (ISSB) in its process of identifying, analysing and managing risks and opportunities associated with the transition to a more sustainable economy.

## TRANSITION RISK ANALYSIS AND MITIGATION MEASURES

The methodology used for the risk analysis - identified by considering ASPI’s entire value chain - covers two deadlines (2030 and 2040) and different transition scenarios developed in alignment with the three scenarios published by the IEA (International Energy Agency):

- **Slow Transition**  
IEA benchmark scenario: Stated policies (STEPS)  
Expected temperature increase: +3°C  
Description: Minor amendments to existing policies and technologies, with a continuation of ‘as-usual’ activities. This scenario entails a significant increase in temperature.
- **Middle of the Road**  
IEA benchmark scenario: Announced pledges (APS)  
Expected temperature increase: +2°C  
Description: The existing policies are complemented with announced pledges. However, uncoordinated action slows down the achievement of Net Zero, which is only planned for 2070.
- **Rapid Climate Action**  
IEA benchmark scenario: NetZero 2050 (NZE)  
Expected temperature increase: +1.5°C  
Description: Global warming is limited to 1.5 °C through strict, coordinated and innovative climate policies. The global goal of Net Zero is achievable by 2050.

Furthermore, the identification and assessment of transition risks and opportunities was done by analysing the entire value chain and considering decarbonisation objectives and levers included in ASPI’s Net Zero plan, as described in the previous paragraphs.

The analysis performed according to the characteristics above and taking the “Middle of the Road” scenario as a benchmark allowed the identification of several risks, the most relevant of which are the increase in the cost of fossil fuels and traditional building materials due to the ETS<sup>15</sup> and the low availability/high cost of low carbon materials<sup>16</sup>.

<sup>15</sup> Emissions Trading System:

<sup>16</sup> The analysis did not reveal the presence of locked-in GHG emissions likely to influence the transition risk.



The following table shows, for each emission category:

- the identified risks clustered in Groups (risk bucket)
- the relevant risk categories (transition) in line with the TCFD/ISSB taxonomy (regulation, market, technology, reputation)
- the residual potential impact on the Group for 2030, estimated to be below 75€M<sup>17</sup>:
  - considering the 'Middle of the Road' intermediate scenario.
  - applying conservative evaluations to risk drivers related to carbon tax and the potential low availability/high cost of low carbon materials.

GHG scope	Risk bucket	Risk Category	Transition risks	Economic quantification
Scope 1	Fleet Electrification	Regulation, Technology, Market, Reputation	Low availability of EV vans & light trucks Higher cost of EV vs ICE cars	Middle of the road scenario Residual economic impact of transition risk post mitigation expected below 75M € in 2030 after mitigation
	Fuels mix	Regulation, Technology, Market, Reputation	Higher fossil fuels price due to ETS (ETS II)	
Scope 2	Renewable energy	Regulation, Technology, Market, Reputation	Low Availability / high cost of biofuels Low availability of renewable energy <i>Low potential after mitigation</i>	
Scope 3	Construction materials	Regulation, Technology, Market, Reputation	Higher price of grey construction materials (ETS I) Strengthening of sustainable design criteria <i>Opportunity for ASPI Group</i>	
	Sustainable financing	Regulation, Technology, Market, Reputation	Low availability / high cost of green materials Potential increase in financing costs due to missed SLB targets <i>Low potential after mitigation</i>	
All				

⚠ Risk with higher economic impact
📜 Regulation
🔬 Technology
🏢 Market
👤 Reputation

Figure 13 - ASPI Group Transition Risks and Estimated Potential Economic Impact

Considering the transition risks outlined above, the mitigation measures developed by ASPI include:

- Definition of a Net Zero plan:
  - Reducing the company's carbon footprint thus mitigating the impact of the carbon tax on residual GHG emissions
  - Mitigation of reputational risk through target validation by SBTi
- Strengthening stakeholder engagement, with a focus on:
  - Suppliers of sustainable building materials
  - Grantor
  - Financial institutions
- Development of tests and strategic partnerships to verify the effectiveness and applicability of technologies included in the decarbonisation levers of the Net Zero plan, including:
  - Tests on Sustainable Building Materials
  - Tests on biofuels
  - Tests on Electric vans
  - Partnership with Coldiretti (see section 5.1, in-depth section 'Strategic Agreements')
- Creation of a monitoring dashboard of KPIs related to climate change checked on a quarterly basis:
  - CO2e emissions of scopes 1, 2 and 3
  - The progress of decarbonisation initiatives supporting the achievement of the Net Zero target

Furthermore, to strengthen the monitoring of Scope 3 upstream emissions, the company is developing a more detailed carbon footprint calculation methodology in cooperation with its subsidiaries Tecne and Amplia.

<sup>17</sup> Estimate for 2030 of the Carbon Tax that could be applied to the residual use of fossil fuel (€3M as per the ETS II proposal not yet in force to extend carbon tax to fossil fuel used in transportation and heating, with a cost of €96/ton of CO2) and the extra costs for low carbon materials (€70M).



### TRANSITION OPPORTUNITIES ANALYSIS

The path chosen by the ASPI Group in 2021 allowed embracing and responding in advance to the challenges of climate transition and adaptation. The Group has taken up this challenge by founding and developing some companies that supplement the necessary skills and knowledge along the entire value chain. Specifically:

- **Movyon:** a leader in the development and integration of Intelligent Transport Systems solutions and a centre of excellence for research and innovation for the Autostrade per l'Italia Group.
- **Tecne:** centre of engineering excellence that runs key projects and coordinates all their phases, from design to construction and construction management, keeping the focus on the development of safe, sustainable and state-of-the-art infrastructures.
- **FreeToX:** develops and provides innovative services related to sustainable mobility and environmental sustainability.
- **Amplia:** deals with the construction, maintenance, restoration and modernisation of infrastructure and the development of road paving materials and technologies.
- **Elgea:** generates renewable energy by enhancing the areas along the motorway network and focusing on the development of technological solutions for the production and sale of green energy.
- **Giovia:** deals with the cleaning service of Service Areas along the highway network, promoting the use of products, machines and equipment with a low environmental impact.
- **Youverse:** manages administrative services and facility management, and aims to become a specialized operator in implementing green and high-efficiency solutions in fleet and asset management.

The transition opportunities identified relate to the in-house development of expertise and skills required for expansion into highly innovative sectors, with the contribution of the subsidiaries described above. The knowledge developed by the Group represents a current and future competitive lever, also supporting the expansion of non-captive business.



Specifically, ASPI has developed green skills in the transformation of its business model, with a focus on three main areas: Engineering & Construction, Innovation & Technology, and Services.

- **Engineering & Construction**
  - **Sustainable Design:** TECNE deals with sustainable design and planning following standards in line with the most advanced regulations and protocols (e.g., Envision)
  - **Low carbon emission Building Materials:** Amplia operates in the research and development of sustainable materials, including Life Cycle Analysis (LCA) and Environmental Product Declarations (EPDs) for asphalt mixes
- **Innovation & Technology**
  - **Renewable Energy:** ELGEA designs and develops advanced photovoltaic systems that maximise integration with infrastructure and its surroundings
  - **Charging Infrastructure for Electric Vehicles:** Free To X is developing charging stations for electric vehicles on the Group's network
  - **Smart Solutions:** Movyon and ELGEA work on research and development projects in three main areas: materials, smart energy and smart mobility
  - **Smart Cities:** Movyon and Free To X are involved in smart mobility and logistics projects, such as the smart city of Genoa (topic expanded in the next section)
- **Services**
  - **Service management:** Giovia and Youverse are engaged in the management of assets and services, such as clean services, fleet and building management, promoting the use of low environmental impact technologies and processes

### USE CASE | The Smart City Genova project

Smart City Genova is pioneering future projects aimed at transforming cities into data-driven ecosystems that collect information from the urban environment using the most sophisticated IoT technologies, analysing and integrating data using cutting-edge software and artificial intelligence. The project is coordinated by Free to X - in cooperation with Movyon - in synergy with the local administration.

Below are the four main objectives of the project:

- Reducing pollution and congestion, thus lowering CO2
- Granting all citizens equal access to services
- Promotion of local public transport by road and rail
- Encouraging the use of electric vehicles (including sharing mobility).

The Smart City Genoa project is unprecedented in Italy for several reasons. First, it adopts a comprehensive and holistic approach: the city is regarded as a single system, not just as the sum of its parts, and the aim is to provide citizens and public administration with integrated and interconnected services. It uses all available data, both from existing and new customised systems, to develop predictive models and simulations with advanced artificial intelligence technologies. Moreover, it introduces Autostrade per l'Italia Group's expertise in Genoa in the implementation of advanced Control Rooms, IoT traffic and toll management, digital twins<sup>18</sup> of critical infrastructures, and vehicle-to-infrastructure communication.

The Smart City System will offer several innovative smart urban mobility and smart logistics features to improve urban and port management, including:

- **Sharing Services:** Use of data collected in real time to regulate traffic flows and improve urban mobility.
- **Evolved LTZ:** Development of an evolved limited traffic zone with dynamic pricing based on the level of expected traffic congestion and type of user.
- **Sustainable mobility:** Provides information to citizens on the most environmentally friendly way to get around the city, considering all transport options and calculating the impact on reducing CO2 emissions.
- **Smart Parking:** Using artificial intelligence to update parking availability in real time, informing citizens via panels and apps.
- **Advanced Traffic Light Area:** Use of artificial intelligence to adapt traffic signals to current traffic conditions, improving traffic flow and safety.
- **Digital Highway Corridor:** Creation of an integrated system for real-time monitoring of heavy traffic to/from the port.

Focus area	Engineering & Construction		Innovation & Tech				Services
Opportunity bucket	Sustainable Design	Sustainable construction materials	Renewable energy	EV charging infrastructure	Smart solutions	Smart cities	Service Management
Subsidiary	TECNE	AMPLIA	ELGEA	FREETOX	MOVYON ELGEA	FREETOX MOVYON	youverse giovia
Opportunity related to sustainable business	Sustainable design & engineering in line with the most advanced protocols • e.g. Envision	Sustainable construction studies • LCA & EPD for bituminous conglomerate	Advanced photovoltaics systems: • minimizing interference with highway traffic	Development of EV charging stations • 500 EV charging stations extra captive	Innovative R&D in three main areas: • Materials • Smart energy • Smart mobility	Development of smart mobility and logistic projects • e.g., Smart city Genoa	Asset and service management • Sustainable cleaning, maintenance, administration, fleet and facility management services

The knowledge, skills, expertise and technologies developed can be exported to extra-captive markets, promoting positioning as a market leader

Figure 14- ASPI Group Transition Opportunities

<sup>18</sup> Digital representation of a physical object, system or process in order to simulate, analyse and predict the characteristics and dynamics of its real-life counterpart.



A **mobility platform and APP (MaaS)** is also planned to be developed to provide citizens with information, reservation and payment services for smart solutions designed for the city, to be used in a simple, integrated and customised manner.

The importance of the projects is twofold: not only does it provide cutting-edge and sustainable services to citizens, but it also ensures access to accurate and up-to-date information to the public administration, offering essential tools for decision support and the implementation of effective government interventions. Moreover, the Smart City model being developed in Genoa has significant potential to be successfully replicated in major Italian cities, thus promoting widespread and sustainable urban innovation nationwide.

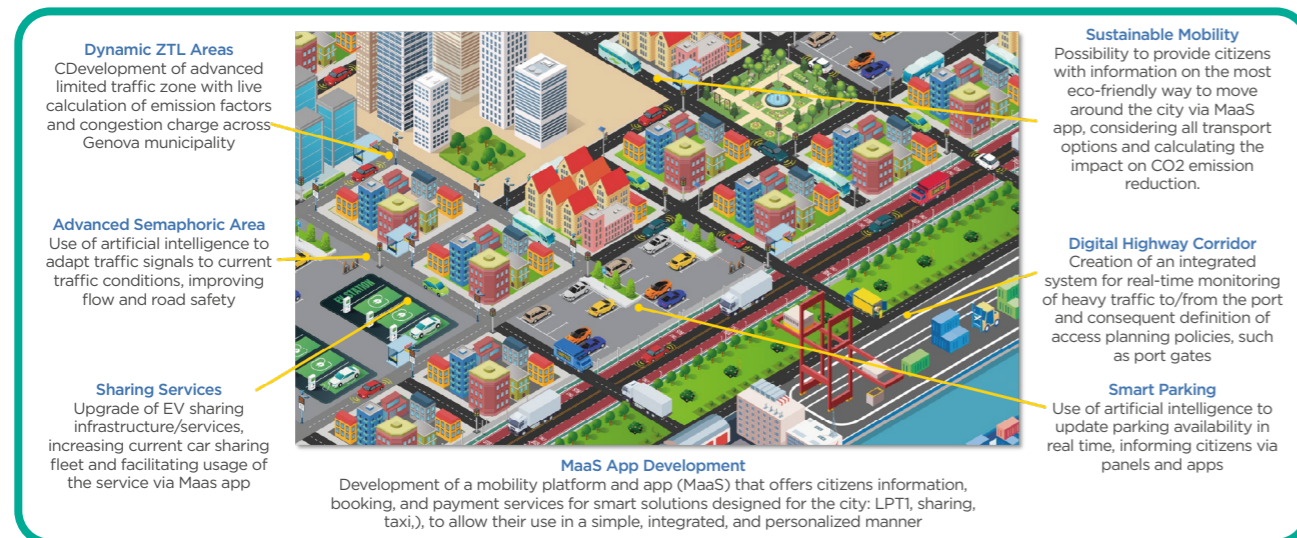


Figure 15 - Illustration of the Smart City Genoa project

### 3.2.3 Future strategic priorities for climate change mitigation

ASPI's future strategic priorities in the field of sustainable mobility and contribute to climate change mitigation, focus on several key aspects to promote a greener and digitised transport system.

- **Development of "Green" solutions and skills:** Development of innovative sustainable solutions, leveraging the set of skills and know-how developed in the Group. These areas range from the design and development of photovoltaic panels (PP) to the development of the electric vehicle charging point (EVCP) network, with current internal but also future non-captive growth objectives.
- **Innovation and digitisation of mobility:** Introducing smart solutions for dynamic traffic flow management and monitoring, improving efficiency and reducing environmental impact.
- **Evolved models to support PAs:** Collaboration with public administrations (PAs) to replicate the technological know-how developed, such as the Smart Cities Genoa project, throughout the country.
- **Integrated decarbonisation strategies and Net Zero pathway:** Research and development (R&D) and adoption of green building materials, together with innovative energy vectors, to reduce carbon emissions and achieve the Net Zero goal.
- **Mitigation Objectives linked to new financing:** Update of the Sustainable Financing Framework to ensure alignment between the financial strategy and ASPI's climate ambition, ensuring that investments actively support emission reduction, climate adaptation and sustainable mobility goals.

## 4. Financial planning

### 4.1 Investment plans to support the strategy

Among its several strategic objectives, Autostrade per l'Italia Group's new Investment Plan, projected to 2038 and currently being finalised, also includes the group's climate ambition through a total investment of € 46.8 billion, divided into three main expenditure items: new assets, modernisation and maintenance<sup>19</sup>. Across all main expenditure items, investments in innovation, digitisation and artificial intelligence play a key role in enabling the implementation and ensuring the success of the plan.

- **New Assets:** With an investment of €19.3 B, ASPI is focusing on major projects such as the Gronda di Genova and the Passante di Bologna, as well as road expansions and upgrades along the network. These projects integrate principles of sustainability and resilience into the design and engineering, through the adoption of the Envision protocol, and benefit the community (e.g. 70MW of photovoltaics integrated into the Passante di Bologna project). Moreover, measures to improve traffic flow (e.g., dynamic lane) and minimise interference with the surrounding areas represent a key element of these projects.
- **Modernisation and digitalization:** By investing €16.6 B, ASPI aims to upgrade key assets such as bridges, viaducts, tunnels, barriers and systems, with the aim of extending the service life of infrastructure and improving its climate resilience. Specifically, investments in modernisation have been budgeted as follows:
  - Assets (incl. Bridges and Viaducts, Pavements and Motorway body) €4.6B:
  - Safety Barriers (Noise Reduction Plan, Blue Catalogue, Integautos, Embankments and other safety barriers) €6.6B
  - Mercury and Technological Equipment €1.7B
  - Tunnel Assessment Plan €2.8B
  - Other Modernization (Service Areas, TSP) €0.9B
- **Maintenance:** With an expenditure of €10.9 B, the plan provides for conservative and recurring maintenance aimed at ensuring the functionality of the infrastructure and preserving climate resilience.

Focusing on the mitigation strategy, the individual decarbonisation levers being implemented by the Group require tailored investments. For example, the electrification of the vehicle fleet will require an investment of more than €10 Million (CapEx and OpEx) by 2028, while relamping with LED technology for network lighting will require more than € 20 Million.

The draft of the Economic Financial Plan as at 2038, in line with the elements outlined above, has been submitted to the Ministry of Infrastructure and Transport (MIT) and is currently being revised.

<sup>19</sup> Autostrade per l'Italia currently analyses the alignment and eligibility of investments and revenues in relation to the Commission Delegated Regulation 2021/2139 (ref. EU Taxonomy), including the results in the NFD on an annual basis.

#### 4.2 4.2 Sustainability Linked Financing Framework

Autostrade per l'Italia's Sustainability Linked Financing Framework, published in December 2022, aims to align the Group's financial strategy with its climate ambition and sustainability objectives. This framework, developed in line with the Sustainability-Linked Bond Principles published by ICMA, incentivises performance and promotes transparency and accountability by allowing ASPI to issue bonds and loans linked to specific KPIs. Failure to meet these targets by the reporting date implies the imposition of a 'financial penalty,' resulting in higher interest rates or other adjustments.

The soundness of Autostrade per l'Italia's framework was also confirmed by the assessment (Second Party Opinion) by Moody's ESG - a leading provider of services for ESG investors - which certifies the consistency of the Sustainability Linked Financing Framework with the main international reference standards.

KPIs considered fundamental and material to the Group's sustainability and business strategy include:

- Greenhouse gas emissions from sources directly controlled by the Group (Scope 1) and emissions from indirect sources associated with the generation of electricity, heat and steam imported and consumed by the Group (Scope 2), calculated as tonnes of carbon dioxide equivalent (tCO<sub>2</sub> eq).
- Scope 3 greenhouse gas emissions from capital goods related to infrastructure development under concession, calculated as tonnes of carbon dioxide equivalent (tCO<sub>2</sub> eq) per million euro of capital expenditure related to infrastructure development under concession (€M) (tCO<sub>2</sub> eq /€M).
- Scope 3 greenhouse gas emissions from the purchase of goods and services related to non-captive infrastructure development works, calculated as tonnes of carbon dioxide equivalent (tCO<sub>2</sub> eq) per million euro of operating profit related to non-captive infrastructure development works (€M) (tCO<sub>2</sub> eq /€M).
- Electric Vehicle Charging Points (EVCPs) installed along the motorway network, calculated as the cumulative number of new EVCPs installed from 2019, the reference year, to 2025, the target reporting date.

ASPI's sustainable financing framework includes several sustainability-related bond issues and revolving credit lines, amounting to €6,6 billion. Key milestones include:

- **January 2023:** Issue of the first €750 million Sustainability-Linked Bond.
- **June 2023:** Issue of the second €750 million Sustainability-Linked Bond.
- **December 2023:** Revolving credit lines totalling €2.3 billion.
- **February 2024:** €1.2 billion EIB loan which includes a direct financing of €0.8B from EIB and an indirect financing, signed in June 2024 of €0.4B from CDP (for further details, see " Financing Agreement signed by the European Investment Bank and Autostrade per l'Italia).
- **February 2024:** Issue of the third €1 billion Sustainability-Linked Bond<sup>20</sup>.
- **April 2024:** CDP financing of €600 million.

The Group's future strategy includes the adoption of new financial instruments linked to KPIs related to climate topics and ESG criteria.

<sup>20</sup> In two instalments of € 500 million each.

#### USE CASE | Financing Agreement signed by the European Investment Bank ("EIB") and Autostrade per l'Italia ("ASPI")

##### Background

The European Investment Bank (EIB) is the financial arm of the European Union and is owned by the Member States. It stands out as one of the world's largest multilateral financial institutions and is a major provider of climate finance. It provides long-term financing to support the EU's strategic objectives in four priority areas: infrastructure, innovation, climate and environment, and SMEs.

To achieve its climate finance ambition at European level, the EIB developed a "Climate Bank Roadmap" in 2021, with the goal of mobilising € 1 trillion in investments by 2030. Important milestones of the plan (2021-2025) include:

- allocate at least 50% of annual funding to climate projects by 2025;
- stop financing fossil-fuel based projects by the end of 2021;
- promote innovative technologies for sustainable development;
- align all financial activities with the objectives of the Paris Agreement.

In line with the Climate Bank Roadmap, the EIB has developed the Transport Lending Policy, which identifies priorities for supporting the transport sector and the provision of mobility services. This policy is designed to meet the limits set by the Climate Bank Roadmap and enables various objectives, including safety, accessibility, efficiency, environmental sustainability and resilience.

##### Funding to ASPI

In February 2024, the EIB approved a €1.2 B loan, which includes a direct financing of €0.8B from EIB and an indirect financing of €0.4B from CDP signed in June 2024, to support ASPI's Climate Strategy and its Modernisation Plan.

Indeed, ASPI's project is in line with both the Climate Bank Roadmap and the Transport Lending Policy, as it represents a significant step forward in modernising the motorway network and adapting it to the challenges posed by climate change.

More than 60% (€800 million) of the financing was covered by InvestEU, the European Commission's investment programme in which the EIB Group is the main implementing partner.

The funding will support the modernisation plan of the motorway network operated by ASPI, with the aim of increasing resilience to potential future climate events and making the network more sustainable. The resources provided by the EIB will play a crucial role in promoting sustainable mobility, encouraging the use of alternative energies and the implementation of innovative technological solutions. The funding will also be used to support the installation of electric vehicle charging stations, photovoltaic panels and LED lighting systems along the network.

In addition, the EIB estimates that the implementation of the project will support more than 13,000 new jobs needed to carry out the planned initiatives, thus promoting the country's economic development.



## 5. Engagement strategy

### 5.1 Stakeholder Engagement: Principles and Mapping

#### PRINCIPLES OF STAKEHOLDER ENGAGEMENT

In pursuit of its climate ambition and its role as a key player in the sustainable mobility revolution, with increasingly sustainable, digitised and safe infrastructure, ASPI recognises the indispensable role of stakeholders in achieving its goals. Therefore, it has outlined eight core principles guiding its dialogue with stakeholders and reflecting its commitment to sustainability, transparency and innovation. These principles promote sound and sustainable corporate governance through an ongoing and transparent dialogue with all stakeholders.

The principles are:

- **Promotion of sustainable behaviours and creation of shared value:** ASPI is committed to implementing practices that not only respect the environment, but also create tangible benefits for all stakeholders, contributing to the well-being of the community.
- **Constant innovation to anticipate customer needs:** ASPI continuously invests in new technologies and methodologies to understand and anticipate customer needs, while ensuring the safety and integrity of the infrastructure.
- **Transparent and systematic communication:** ASPI adopts a clear, complete and timely communication policy regarding its activities, ensuring that all information is accessible and easily understood.
- **Fair access to information and engagement policies:** ASPI ensures that all shareholders and investors are granted equal access to information and promotes inclusive engagement policies.
- **Compliance with current regulations:** ASPI ensures compliance with regulations, especially regarding the protection of consumer interests and customer satisfaction.
- **Respect for the rights of individuals, communities and cultures:** ASPI operates with full respect for human rights, local communities and different cultures, promoting an inclusive and respectful environment.
- **Transparent and impartial supplier qualification:** supplier selection and evaluation processes are transparent, traceable and impartial, including contractual clauses guaranteeing respect for human rights and environmental sustainability.
- **Maintaining institutional relations according to principles of legality:** ASPI maintains correct and legal relations with institutional representatives, following a system of proxies and powers of attorney that clearly defines the persons in charge within the company.

### STAKEHOLDER MAPPING

During its activities, Autostrade per l'Italia Group interacts with many categories of stakeholder, i.e. all the individuals and institutions directly or indirectly influenced by the organisation's activities and results, or that in turn influence the Company's operations. Discussion and dialogue with these stakeholders are held through various channels (described in '5.2 Driving a collective change: channels and initiatives'), following the principles described above.

The main stakeholders, identified according to their relevance and potential impact on the Group's activities, are:

1. Investors and the financial community
2. Institutions
3. Communities and regions
4. Customers
5. Suppliers
6. Employees

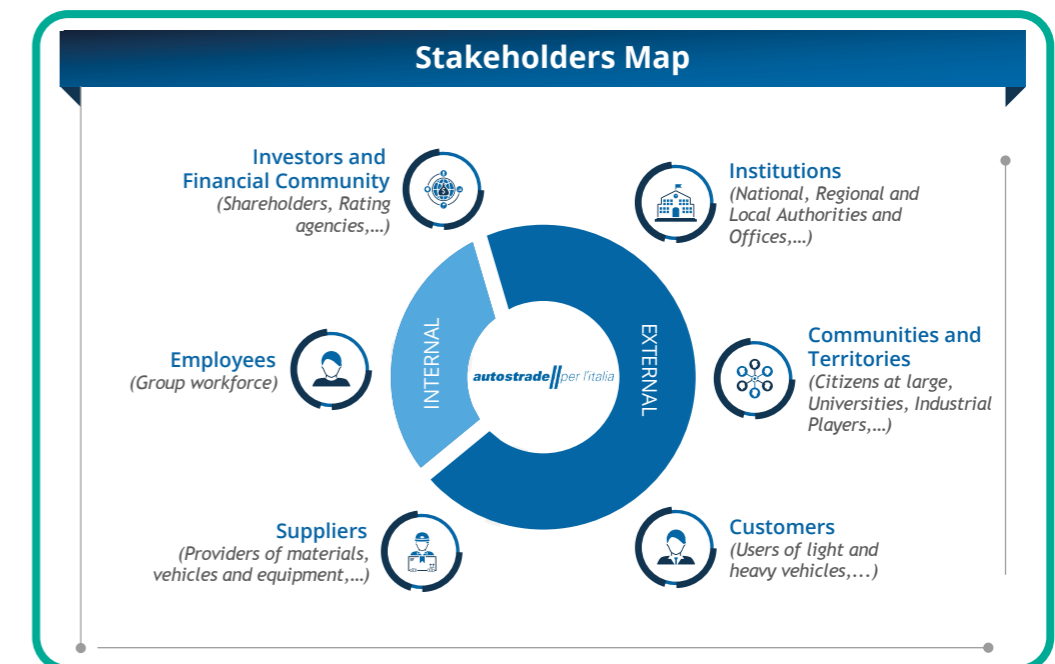


Figure 16 - Map of the Group's main stakeholders

The Group is fully aware that the ability to listen, engage and respond effectively to the needs of each of these categories is a prerequisite for success. This implies improving the relationship with customers through an approach that reinforces their centrality, with tangible investments in innovation and digitalisation. In addition, a constant investment in the development and valuation of internal resources, whose growth is essential for the organisation's excellence and resilience, is fundamental.

ASPI also recognises the need to invest in an ethical and sustainable supply chain and to maintain an active collaboration with agencies and institutions, extending efforts to local communities with specific projects.

The ultimate goal is to build an integrated community, where stakeholders' needs and expectations are listened to and met, both through the tools provided by the Group and in response to critical events.

## 5.2 Driving a collective change: channels and initiatives

ASPI actively engages its stakeholders through various dialogue channels and climate-focused initiatives, fostering collective change. Each stakeholder group has specific dialogue channels to facilitate effective and targeted communication.

### Investors and the financial community

- **Main dialogue channels:** Regular disclosure of results and significant financial transactions through meetings, conference calls and investor relations events such as roadshows.
- **Climate-related initiatives (selected):** Publication of a Sustainability Financing Framework, with recurring publications and communications to support ASPI's transparency and commitment to sustainable practices, continually updated on the sustainability section of the company's website.

### Institutions

- **Main dialogue channels:** Collaborations and memoranda of understanding (e.g. INAIL, the Italian public entity that manages compulsory insurance against workplace accidents and occupational diseases, and legality protocols), joint and cross-functional working groups at local and national level (e.g. Multistakeholder Regional Plans).
- **Climate-related initiatives (selected):** ASPI participates in partnerships with relevant associations (AISCAT, Asecap) to promote open dialogue, actively contributing to initiatives related to climate change and sustainability policies.

### Communities and regions

- **Main dialogue channels:** Regular meetings with institutions (conferences, press releases, round tables), collaborations with universities, research centres and industrial players, partnerships with non-profit associations, foundations and local NGOs.
- **Climate-related initiatives (selected):** ASPI is committed to communicating its climate ambition and collaborating to achieve key objectives through conferences, collaborations with universities, research centres and industrial partners (see 'Strategic Agreements'), partnerships with local non-profit associations, foundations and NGOs, as well as projects for local cultural enhancement.

### Customers

- **Main dialogue channels:** Service Charter, multi-channel traffic information and assistance, social networks and websites (Muovy<sup>21</sup>), customer service.
- **Climate-related initiatives (selected):** ASPI engages in educational, knowledge development and communication campaigns on Smart Tolling and Urban Mobility, supporting the transition to more sustainable modes of transport (see "The Green Paper").

### Suppliers

- **Main dialogue channels:** Training, onboarding and data exchange platforms (Highway to Procurement<sup>22</sup>, Open-ES<sup>23</sup>), surveys, audits and inspections, reporting channels (ethics office, whistleblowing platform).
- **Climate-related initiatives (selected):** ASPI adopts ESG criteria in public/private tenders and collects suppliers' sustainability initiatives through Open-es, incentivising sustainable practices throughout the supply chain.

<sup>21</sup> Muovy is the service HUB of ASPI dedicated to customers.

<sup>22</sup> ASPI's portal for the management of procedures for awarding goods, services and works in compliance with the principles of transparency, impartiality and fairness.

<sup>23</sup> Open-Es is a collaborative digital platform that promotes sustainability in industry by enabling companies to measure, monitor and improve their environmental, social and governance (ESG) performance. The platform facilitates the sharing of data and best practices between companies, supporting the transition to a more sustainable economy.

### Employees

- **Main dialogue channels:** performance management systems, SMP - Stakeholder Management Plan for Major Works, internal communities, training programmes and communication channels (Intranet, Next TV, Autostrade Informa), negotiation and consultation tables with trade unions, reporting channels (ethics office, whistleblowing platform).
- **Climate-related initiatives (selected):** Internal Community of ESG Ambassadors, 'ESG Statement, New Generation Board, workshop on ESG topics at Group's offices, a sustainability contest, and a handbook on sustainable practices developed in collaboration with Azzeroco2, a company affiliated with Legambiente, and internal guidelines on Business Continuity in case of adverse climate events.

### USE CASE | Strategic Agreements

To support and promote its strategic objectives and climate commitments, especially in the energy transition and sustainable mobility, ASPI has established significant partnerships with important industrial and institutional entities. These partnerships aim to identify and develop specific projects that add value to the Group's activities and support the implementation of its strategic transformation plan and climate ambition.

In November 2022 an agreement was signed with Eni and Cassa Depositi e Prestiti (CDP) for the development of joint initiatives in the field of sustainable mobility. The agreement provides for:

- the development of new energy vectors for the decarbonisation of the Italian motorway network, e.g. biofuels;
- the installation of photovoltaic parks in areas owned by Autostrade per l'Italia or in the proximity of the motorway network;
- an increasing number of electric charging stations in parking areas, as well as new alternative energy vectors (including electricity, biomethane and hydrogen);
- the launch of circular economy-related initiatives, starting with the collection of used tyres to be transformed into environmentally sustainable chemicals that can be used, for example, in motorway paving.

Also relevant is the agreement with Coldiretti (the largest association representing and supporting the Italian agriculture sector), signed in November 2022, to promote the strengthening of the logistics infrastructure to support the agri-food chain and the development of efficient and sustainable freight transport models. The agreement provides for:

- the development of agro-photovoltaic plants built in the vicinity of Coldiretti member farms, for the establishment of Renewable Energy Communities;
- the development of new energy vectors for the decarbonisation of the Italian motorway network, e.g. biofuels;
- the strengthening of the logistics infrastructure useful and functional to the agri-food chain through distribution centres.



## USE CASE | THE REVOLUTION OF SUSTAINABLE MOBILITY STARTS FROM THE MOTORWAYS. SAFE, DIGITAL, DECARBONISED

The Revolution of Sustainable Mobility Starts From The Motorways. Safe, digital, decarbonised' is a book published in 2023 to promote debate and reflection on key issues relating to the management and development of motorways in Italy.

The paper, published by Il Sole 24 Ore, was written by a multidisciplinary team of experts from academia, research, leading practitioners and players in the economic system. Specifically, the research project was supported by ASPI in collaboration with: Politecnico di Milano, Università degli Studi della Campania Luigi Vanvitelli, Università degli Studi di Napoli Federico II, CNR Stems, CDP, Enea, Eni, RSE - Ricerca Sistema Energetico and Snam.

The book is built to deliver six key messages:

### 1. Motorways: crucial and irreplaceable infrastructure

Road transport is essential and irreplaceable in Italy, where 38 million Italians travel 1.8 billion kilometres every day. This type of transport covers 89% of passenger mobility, due to the country's geographical and demographic specificities that reduce the effectiveness of alternative transport such as rail. Freight transport by road also predominates, with 84% of the total moved by road, well above the European average (52%).

Moreover, motorways directly influence demographic distribution - with almost 70% of the population living near a motorway junction - and business choices - with many companies locating strategically to optimise logistics and travel times. This shows how deeply motorways are integrated into the productive and social fabric of Italy.

### 2. Europe's oldest and most complex network

Italian motorways are among the oldest and most complex in Europe and therefore face unique challenges due to their orographic characteristics and history. With 85% of the network built since the 1970s and a high daily traffic of 40,000 vehicles per km, the need for modernisation has now become urgent.

Italy is also the country with the largest number of motorway bridges (1,200 kilometres) and half of the motorway tunnels in Europe (500 kilometres). Noteworthy is also the natural geological instability of the country: two-thirds of the landslides recorded in Europe occur in Italy over an area of almost 24,000 km<sup>2</sup>, i.e. 8% of the national territory.

The network, which is overloaded and frequently crossed by lorries, requires maintenance and upgrading to sustain the economic performance of the country.



Figure 17 - Cover of the book: 'The Revolution of Sustainable Mobility Starts From The Motorways. Safe, digital, decarbonised'.

### 3. The seventh transport revolution travels by motorway

2024 marks the centenary of Italian motorways and with it the 'seventh transport revolution', aimed at promoting a radically new, safe, efficient and sustainable mobility.

Among the main priorities are the modernisation of the motorway infrastructure to increase its efficiency and safety, including network expansion and maintenance that takes due account of increasingly frequent weather events. Likewise, a strong focus on digitisation: ASPI's 'Mercury' programme, for example, incorporates advanced technologies to manage traffic and improve safety, while supporting the spread of self-driving vehicles.

Another key aspect is decarbonisation, with the development of levers to reduce the motorway carbon footprint. Despite the critical importance of roads for the economy and logistics, they account for a large share of emissions, being responsible for 26% of greenhouse gas emissions in the EU. Moreover, the sector is expected to grow, with traffic growth leading to a 13% and 30% increase in emissions for passengers and freight, respectively, by 2030 (vs. 2015).

To deal with this environmental challenge, the European Union has introduced the 'Fit for 55' plan, which aims to reduce road transport emissions by 40% by 2030 compared to 2005 levels, with even stricter targets for Italy. The effectiveness of this plan will depend on shared efforts across the entire transport chain, including infrastructure, vehicles, energy vectors and users. Only by adopting a holistic and coordinated approach shall meaningful and concrete decarbonisation be achieved.

### 4. Bridges and tunnels: a heritage to be regenerated

The Italian motorway infrastructure, consisting of hundreds of bridges, viaducts and tunnels, requires continuous regenerative and preventive maintenance. These structures, essential to fit with the geographical characteristics of the Italian territory, are ageing and subject to continuous stresses due to intense traffic and climate change. The collapse of the Morandi bridge in Genoa occurred in 2018 revealed the importance of adequate monitoring and up-to-date maintenance practices.

The interventions proposed include replacing decks, strengthening piers and foundations, and introducing modern technologies to monitor and prevent damage. Investment in these assets will not only preserve an asset valued at around € 1,200 billion but will also bring significant economic benefits, boosting employment and economic growth through the activation of supply chains and the consumption of goods and services. These works aim to extend the service life of crucial infrastructures for at least another 50 years, thus consolidating the safety of the Italian motorway network.

## 5. Accident-reduction technologies

The future of the motorway is closely linked to the development of technologies able to decrease the number of accidents, minimise human error, and achieve complete road automation to manage traffic flows and speeds more efficiently.

In terms of assisted driving, key technologies include Intelligent Speed Assistance (ISA), driver inattention and fatigue warning, Automatic Emergency Braking (AEB), Emergency Lane Keeping System (ELKS), and Event Data Recorder (EDR), a kind of black box that records vehicle performance and driver behaviour.

These innovations serve as a pathfinder for the most revolutionary initiative - autonomous driving - which is intended to eliminate or minimise human error, cause of 90% of accidents.

The technological evolution leading to autonomous driving goes close with the digitisation of the infrastructure to make motorways more efficient, reduce traffic congestion, and reduce polluting emissions.

## 6. New energy vectors for decarbonisation

The adoption of alternative energy vectors is a requirement for decarbonising the automotive sector. Among the main energy vectors are biodiesel, biomethane, hydrogen, e-fuels and electricity.

Biofuels such as biodiesel and biomethane are considered bridging solutions for the energy transition, significantly reducing emissions compared to fossil fuels, but not completely.

Hydrogen, especially if produced in a sustainable manner (green hydrogen), is promising for its high energy efficiency and low emissions but is currently hindered by high production costs and low availability.

E-fuels offer advantages in terms of zero emissions although they are characterised by low energy efficiency and large-scale production that is not yet feasible. On the other hand, electricity emerges as the most promising vector, with electric vehicles offering superior energy efficiencies and zero emissions in use. It is therefore not surprising that electric cars are making progress, with a growth in registrations and an expansion of charging infrastructure, especially along motorways.

Despite significant progress, investments and policies aimed at sustainable mobility remain key to achieving an effective energy transition in the automotive sector.

## 6. Monitoring progress

ASPI's strategy for dealing with the climate transition is tracked through different metrics and targets, both short- and long-term, which are constantly monitored and disclosed.

Two different sets of metrics have been defined, covering respectively activities and actions for climate mitigation and adaptation.

### 6.1 Climate Metrics and Targets

In line with its mitigation strategy and targets for reducing its CO2 emissions and defined in the Group's Net Zero plan, ASPI is implementing multiple initiatives to reduce the use of fossil fuels, improve energy efficiency and increase the use and production of renewable energy. The progress of these initiatives is monitored on a quarterly basis to ensure that the set targets are met and to identify any critical issues and remediation actions.

ASPI also closely monitors climate adaptation activities and corresponding initiatives, using specific indicators ranging from asset maintenance and surveillance systems to investments in network modernisation and upgrading. These include:

- Advancement of Multi-Level Assessment for Bridges and Tunnels
- Geotechnical monitoring
- Percentage of progress of design activities according to the Envision protocol
- Number of waterproofing and structural upgrading works in tunnels
- Number of closures on specific junctions/routes due to adverse weather events

Based on these indicators, adaptation targets are being defined more accurately. This approach ensures that ASPI's strategies and initiatives are continuously evaluated and improved to effectively address the challenges posed by climate change.

### USE CASE | NET ZERO SBTi

#### SBTi: mission and purpose

SBTi, an acronym for Science Based Targets initiative, is a collaboration between the CDP (formerly known as the Carbon Disclosure Project), the World Resources Institute (WRI), the World Wide Fund for Nature (WWF) and the United Nations Global Compact (UNGC).

SBTi promotes ambitious climate action in the private sector, allowing companies to set science-based targets to reduce their carbon footprint.

These targets must be aligned with the latest climate research and, specifically, with the reduction of greenhouse gas emissions needed to achieve the Paris Agreement goals of limiting global warming to 1.5°C compared to pre-industrial levels.



Companies joining the SBTi initiative are required to submit their targets to a review and approval process to ensure compliance. This adds credibility to the targets themselves, ensuring their actual contribution to the fight against climate change.

The procedure for setting an SBTi target involves the following five steps:

- Commit: the company publicly commits to science-based targets
- Develop a target: the company develops targets in line with the criteria and guidance provided by SBTi, as well as decarbonisation levers to achieve them
- Submit: the company shares its targets with SBTi for validation
- Communicate: validated targets are published on the SBTi website
- Disclose: following validation, every year the company is required to report its emissions and progress in relation to targets through, for instance, CDP disclosure, budgets, sustainability reports and the company website.

#### ASPI's SBTi-validated targets

Autostrade per l'Italia is one of the few players in the transport infrastructure sector with short-term and long-term targets validated by SBTi ( in 2022 and 2024 respectively). In both cases, the base year is 2019.

Short-term targets (by 2030):

- **Scope 1 & 2:** absolute reduction target, **-67.8%** GHG emissions vs base year
- **Scope 3:**
  - Category 1 - capital goods: **intensity** target, **-52% per million euro of investment expenditure** (equivalent to an absolute reduction of 27.5% over the same period) vs the base year
  - Category 2 - purchased goods and services: **intensity** target, **-55% per million-euro operating profit** vs the base year

Long-term targets (by 2050):

- **Scope 1,2 & 3:**
  - absolute reduction target, -90% GHG emissions vs base year
  - **Net Zero** target, achieving **carbon neutrality** by offsetting residual emissions (corresponding to a maximum of 10% of the total) through **carbon credits**

COMPANY/FINANCIAL INSTITUTION	TARGETS		
	NEAR TERM	LONG TERM	NET-ZERO
<b>Autostrade per l'Italia</b> Italy, Europe	<b>1.5°C</b>	<b>1.5°C</b>	<b>2050</b>

Source: SBTi website

Figure 18- SBTi-validated targets





## 7. Governance on climate issues

ASPI has implemented a clear and robust governance structure to oversee and guide initiatives related to climate change and sustainability. This structure ensures that climate change strategies are integrated into business operations and that progress towards goals is regularly monitored and assessed.

### 7.1 Roles, Responsibilities and Accountability

Climate governance is structured on several levels to ensure that strategies are effectively implemented and monitored.

#### Board of Directors

ASPI's Board of Directors is responsible for overseeing the company's sustainability initiatives. Main activities relate to the definition and approval of all strategic and ESG (Environmental, Social, and Governance) guidelines with the aim of creating long-term value for stakeholders.

#### ESG & HS Committee

The ESG and HS Committee supports the Board of Directors in overseeing climate change and sustainability initiatives. Main activities include:

- Review and evaluation of strategic and ESG guidelines.
- Evaluation of the objectives and initiatives of the Sustainability Plan.
- Review of sustainability-related reporting (Non-Financial Statement, Climate Transition Plan).
- Establishment of fit-for-purpose project teams for specific tasks.

#### ESG Management Committee

The ESG Management Committee, chaired by the CEO of the company, proposes ESG guidelines to the ESG and HS Committee and ensures the monitoring of the progress of the Sustainability Plan. Main activities include:

- Proposal of ESG guidelines to the ESG and HS Committee.
- Validating and ensuring the monitoring of the progress of the Sustainability Plan.
- Coordination of the implementation of ESG initiatives and promotes their integration.

#### Sustainability Function

The Sustainability Function is responsible for the translation of ESG guidelines and the Sustainability Plan into ESG initiatives, KPIs and targets, supporting integration. Main activities include:

- Transformation of ESG guidelines and the Sustainability Plan into ESG initiatives, KPIs and targets.
- Monitoring the progress of the Sustainability Plan.
- Overseeing sustainability reporting in accordance with current regulations and standards (CSRD).

#### ESG Ambassadors

ESG Ambassadors identify and promote potential new initiatives in line with ESG guidelines and support the Sustainability Function in all its responsibilities.

This governance structure ensures that strategies are integrated into ASPI's day-to-day operations, and that progress is constantly monitored and evaluated to ensure that sustainability targets are met.

#### USE CASE | INTEGRATED PROJECT TEAM (IPT)

Specific governance structures with defined objectives are established to manage priorities and primary issues, including those related to climate change management.

In June 2023, following the floods in Emilia Romagna occurred in May, a fit-for-purpose Integrated Project Team ('IPT') was established to develop a specific governance protocol to effectively anticipate, respond to and manage the potential impacts of significant climate events, such as floods and landslides, on ASPI's operations.

The integrated project team was founded with the following objectives:

- Complete Evaluation of the Event: Examine the operational, managerial, technical and relational impacts of the event.
- Governance and Coordination Methods: Establish effective and efficient procedures for handling these events, ensuring consistent management across the network.

The working group was tasked with developing a governance protocol for managing significant climate events, in line with ANSFISA guidelines (ANSFISA is the Italian National Agency for the Safety of Railways, Roads and Motorways, responsible for ensuring the safety of these infrastructure).

The protocol includes measures for:

#### Prevention and Protection

- Updating and Monitoring: Continuous updating on risks and monitoring of the state of the region and network.
- Adaptation Strategies: Reduce the vulnerability of elements at risk with interventions in areas exposed to the risk of flooding and/or landslides and characterised by the presence of tunnels and other network structures.
- Containment Strategies: Reduce the likelihood of floods and landslides and improve water runoff with drainage and containment basins.

#### Preparation

- Early Warning Systems: Setting and improving early warning and forecasting systems.
- Awareness and Preparation: Increasing stakeholder awareness and preparation for events.



### Management and Coordination

- Responsiveness: Define roles and responsibilities, escalation levels, criteria for critical decisions, types and quantities of resources to be deployed, and conduct pre- and post-event inspections.
- Internal and External Coordination: Manage coordination with Civil Protection and emergency services.

### Post-Event Assessment and Recovery

- Restoration and Securing: Define protocols for the restoration and securing of network resources involved in the events.

All these activities form an integral part of ASPI's broader Integrated Management System, aimed at identifying, assessing, managing and mitigating risks according to ANSFISA guidelines.

The governance protocol was developed by the IPT through the work of four key cross-functional work streams, involving about 20 employees, under the supervision of a dedicated steering committee. The IPT formalized the protocol in early 2024, thus achieving its main objective.



## 8. Culture, incentives and skills

### 8.1 Integrating Climate Ambition into Culture

ASPI's corporate culture is closely linked to its sustainability ambitions. ASPI places sustainability at the heart of its corporate mission: "To make mobility increasingly sustainable, safe, innovative, efficient and responsive to the present and future needs of society and its communities." This consistency is actively pursued through several in-house initiatives dedicated to increasing employee and key stakeholder awareness of ESG issues, including climate issues. Two initiatives, described below, fit into this context.

#### The Group ESG Statement

The Group's ESG Statement articulates ASPI's commitment by defining clear strategies for sustainable actions aligned with the United Nations Sustainable Development Goals (SDGs). This document aims to promote continuous improvement of business processes and results, thereby supporting the creation of 'shared value' for all stakeholders. The statement has been approved, subject to the favourable opinion of the ESG&HS Board Committee, by the Board of Directors, which will review and approve any updates in line with the evolution of the Group's ESG strategy.

The ESG Statement is used as an operational guide for business decisions and day-to-day activities. It provides a clear and structured picture of the company's sustainability expectations, helping employees to understand and actively contribute to ESG goals. The statement promotes transparency and harmonisation across all levels of the organisation, ensuring that every action taken is in line with sustainability principles. The document is available on the company's website in the sustainability section.

#### ESG Ambassadors

To accompany the ESG governance set up to support the Group's climate ambition, ASPI established the ESG Ambassadors Community, consisting of multi-departmental line managers within the organisation, who are responsible for:

- Turning the ESG strategy into concrete initiatives, identifying KPIs, baselines and targets, and monitoring their implementation in cooperation with the ESG Function.
- Identifying and promoting new initiatives in line with ESG guidelines.

The Community is essential to keep the culture of sustainability alive and well within ASPI, fostering an environment of shared responsibility and collective commitment.

## 8.2 Remuneration Policy and Sustainability

The compensation policy serves as a strategic tool to support the achievement of ASPI's strategic plan goals by establishing a clear and consistent connection between corporate strategy and incentive systems. The variable incentive framework is heavily focused on sustainability, with predominantly quantitative objectives that are closely aligned with the strategic directions of the Company's Industrial Plan (Safety, Stakeholder Engagement, Smart Solutions, and Sustainability).

ASPI's compensation policy supports the execution of the business strategy by:

- i) defining variable incentive systems that align Management's interests with those of shareholders;
- ii) setting short, medium, and long-term goals centered on economic-financial sustainability, infrastructure operations, and ESG issues;
- iii) identifying compensation packages that recognize the performance of internal resources while also attracting high-profile external candidates.

ASPI has implemented a remuneration scheme that directly links monetary rewards to results achieved. The main components of the remuneration scheme comprise two basic plans: the MBO Plan and the LTI Plan.

- **The MBO (Management by Objectives) Plan** aligns remuneration opportunities with the achievement of short-term objectives, targeting CEO/GM, top management and middle management. This system, reviewed annually by the Remuneration and Appointments Committee, ensures that remuneration is closely linked to the achievement of specific and measurable results, including those related to sustainability included in the Strategic Plan.
- **The LTI (Long-Term Incentive) Plan**, aimed at the top management, focuses on medium-to-long-term remuneration opportunities. This plan is oriented towards generating shareholder value and ensuring the long-term sustainability of management results, while also promoting the retention of key personnel.

For 2024 as well, the variable components of compensation for both Top Management and Management are linked to the achievement of specific climate targets and the implementation of initiatives that support ASPI's broader climate ambition.

Additionally, an incentive system, the performance bonus, is in place for all ASPI employees and includes sustainability goals. This incentive system demonstrates the strategic value of the commitment to climate action and promotes a cultural shift towards sustainability throughout the organization.

## 8.3 Skill Development Plans

To reinforce its commitment to sustainability goals, ASPI has implemented several educational events and specific training programmes for employees. These programmes are designed to develop specific skills and promote a corporate culture that fully embraces the values of sustainability.

In 2023, ASPI launched various training initiatives aimed at integrating sustainability principles into the daily activities of employees, summarised in the "Autostrade del Sapere" (Highways of Knowledge) Insight and Use Case. These programmes include specific sustainability modules designed to raise awareness of environmental risks and promote sustainable working practices. ASPI also organised specific workshops to develop leadership in sustainability among executives and middle management. These workshops aim to provide business leaders with the tools required to integrate sustainability principles into strategic and operational decisions, promoting a culture of sustainability at all levels of the organisation.

Besides training programmes, ASPI organised awareness-raising events aimed at spreading sustainability awareness among employees. These events include sustainability days and special events dedicated environmental issues, during which employees participate in hands-on activities and information sessions to better understand the impact of their actions on the environment and how they can contribute to corporate sustainability. Furthermore, ASPI promotes projects involving local communities, emphasising the importance of sustainability not only within the company but also in the broader social context.

### USE CASE | Autostrade del Sapere

Autostrade del Sapere is an initiative launched in 2019 to put people and their skills at the heart of the Group's strategic transformation plan and climate ambition. The aim is to enhance staff skills and attract infrastructure professionals by creating an ecosystem with universities, business schools, training centres and national technology incubators. The initiative aims to encourage national excellence to collaborate, creating a synergy between the business, school and academic worlds. This cooperation promotes lifelong learning, professional growth and supports innovation and digital transformation through strategic relationships and partnerships.

The project is structured through a network of strategic links, known as 'corporate knowledge centres', operating as hubs of innovation and development, with defined objectives covering specific areas of education and business.



**The pillars of “Autostrade del Sapere” program are:**

- **Education & Innovation:** an operational centre and enabler of the knowledge and skill network.
- **Corporate University:** an intra-group training project to promote life-long learning and dissemination of technical know-how through a continuous learning plan, implemented by a community of 130 in-house trainers in cooperation with universities and business schools.
- **Safety Academy:** the competence centre for health and safety, which promotes the strengthening of a safety culture in infrastructure, integrating technology, innovation and the human dimension to create a safer working environment.
- **Schools of Trades:** technical-specialist training programmes that blend theory and practice to recruit and train specialists in the Group’s core sectors.
- **Next Generation:** for the development of projects and initiatives aimed at professional growth and job enrichment, through the introduction of experiential activities, job rotation within the Group, on-the-job shadowing, mentorships and specialised and university training programmes.

The “Corporate Knowledge Centres” host different initiatives aimed at developing the skills and knowledge needed to support the achievement of the goals ASPI has set itself, including decarbonisation and climate adaptation. Some of the most relevant initiatives include:

1. **LED (Lead, Excel, Develop):** an 18-month development programme designed for young talent under 35. The first edition, which ended in 2022, provided around 280 hours of training per capita, both managerial and specialised. At the end of the programme, an individual development plan was organised for each participant, to enhance their managerial growth and consolidating their skills. The second edition was launched in October 2023 and is currently involving 47 professionals. To this end, an 18 hour training course was planned, to be delivered in November 2024. The main topics covered will be as follows:
  - a. ESG Mindset;
  - b. ESG Governance & Reporting;
  - c. ESG Outlook for ASPI.
2. **Smart Infrastructures & Construction Academy at the Federico II University Department in San Giovanni a Teduccio (Naples):** this initiative aims to train highly qualified professionals in integrated network management and life cycle engineering to optimise the life cycle of infrastructures and extend their service life;
3. **Master’s Degree in ‘Engineering and Integrated Management of Motorway Networks’:** a second-level university master’s degree designed for new hires under 30 as an apprenticeship, co-designed with the Politecnico di Torino, Politecnico di Milano and Politecnico di Milano Graduate School of Management. The 24-month programme is delivered through a high-level apprenticeship training contract combining work and academic training aimed at enhancing technical-specialist skills needed to manage complex, innovative and resilient road infrastructures. Topics include electric mobility, smart roads, innovative materials, water management and geotechnical risk analysis;
4. **“Off Road Future Leaders”:** a 160-hour programme developed in cooperation with SDA Bocconi, developed with the ambition of training the ‘next generation’ of managers. It aims to develop a leadership model in line with the Group’s values, including climate values, and to strengthen fundamental skills related to strategic thinking, including project management, communication and digital

transformation. Within this programme, the ‘Scenario & Strategic Thinking’ module includes a deep session on environmental sustainability policies applicable to the motorway sector, the role of alternative fuels and the expected impact on transport infrastructures;

5. **ESG Faculty:** aims to foster the integration of Environment, Social and Governance (ESG) policies within corporate processes. Specifically - the “ESG for Managers | All-round Sustainability” programme (20h), in partnership with SDA Bocconi and involving 155 executives in 2022, and the continuing education for ESG Ambassadors, launched in 2022 with classroom programmes in partnership with LUISS Business School (24h) and SDA Bocconi (32h) - directly address environmental and climate change issues. Lastly, a 2-hour training session entitled ‘ESG principles applied to Project Managers (RUP) and Procurement’ is scheduled to be held in September 2024. The aim will be to provide a more detailed overview in the ESG area to employees within the Group who are involved in Procurement and/or hold the position of RUP. In this regard, the topics will include an in-depth analysis of the Group’s Climate Transition Plan;
6. **Faculty Infrastructures:** the course titled ‘Critical issues in design and approval for the environmental sustainability of infrastructures’, in which more time is dedicated to the environmental permitting process (mandatory requirements with regard to the management of earth and rocks from excavation and of polluting materials), has incorporated, from this year, a section with hints on innovative requirements: environmental management plans for construction sites, Envision guidelines and rewarding criteria for the adoption of green materials and technologies for the reuse of materials. The first edition took place in February 2024, as a webinar, and was attended by 68 participants. The second edition is scheduled for September 2024 with an expected number of 90 participants;
7. **New Skills Fund 2023:** a public training plan was launched in 2023 and and, depending on the specific content, it was provided to about 3,700 employees. Environmental sustainability topics were covered in depth for about 8h.



**autostrade  
per l'Italia**

