MOBILITY, ENVIRONMENT, RESPONSIBILITY.

2024

FS GROUP'S ENVIRONMENTAL REPORT

ENVIRONMENTAL REPORT

FERROVIE DELLO STATO ITALIANE

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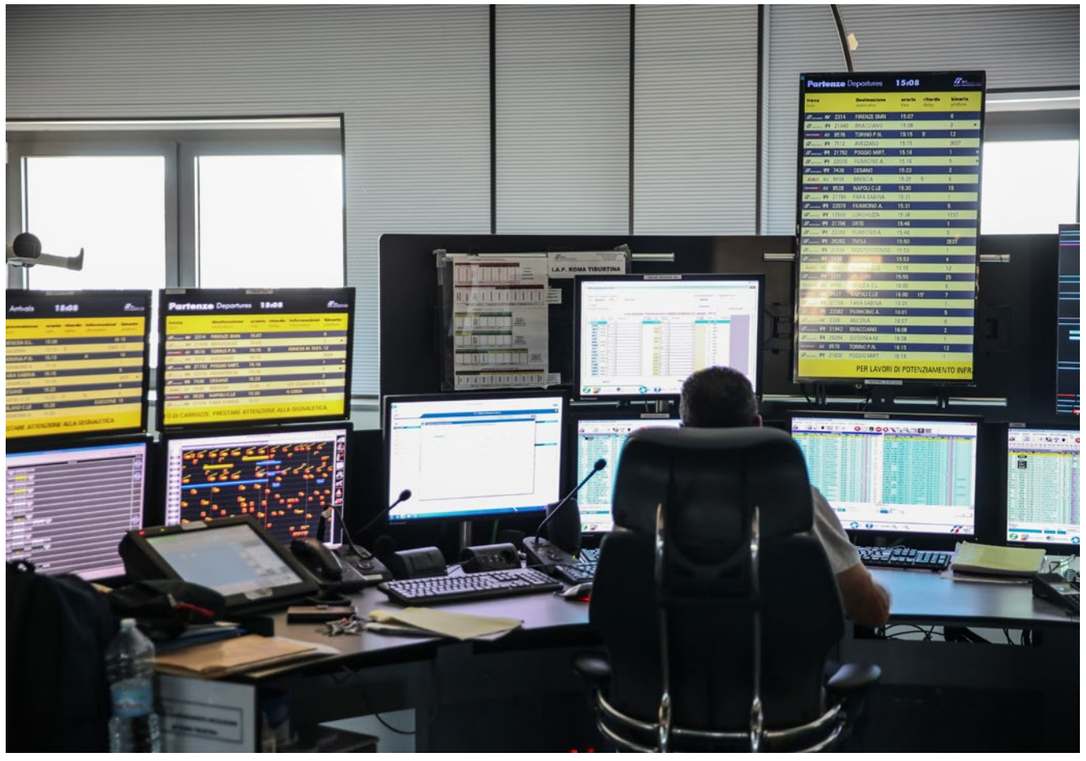
INTRODUCTION

In a global context characterised, on one hand, by growing environmental challenges and instability, and by an ever-increasing collective awareness of the need to adopt sustainable development models, on the other, FS Group wishes to reaffirm its resolute commitment to safeguarding the ecosystem. The extreme weather phenomena that hit Italian and European regions in the recent past are but a reminder that climate change is no longer a forecasting, but rather a reality we already have to deal with on a daily basis. Exceptional events have become recurrent, requiring immediate and structural responses from all economic and social players.
We believe that protecting the environment is not just a moral duty, it is also indispensable to ensure long-term prosperity. All our strategic actions are geared towards promoting a virtuous balance between industrial growth, environmental responsibility and the well-being of the communities we are active in. FS Group is aware that its activities and services can affect people and communities, and it is thus committed to continuously improving its environmental performance, also with a view to ensuring a clean, healthy and sustainable environment as a human right.
In this scenario, Ferrovie dello Stato Italiane Group has taken on a leading role in the country's ecological transition. We are not just adapting our infrastructure to the new risks caused by climate change, we are profoundly rethinking the way we do business, by placing environmental sustainability at the heart of every strategic decision. Decarbonisation, biodiversity protection and circular economy are the pillars of our daily action, as we are aware that rail transport is already the most sustainable way to move people and goods around.
We transport every day over 2 million passengers, over 150 thousand tons of freight, and run 17,000 kilometres of rail network. This is why we have set ambitious targets: to achieve net zero emissions by 2040, ten years ahead of the European target, and to increase self-generated power to 3 TWh by 2034. These goals require significant investment, but represent our vision of a greener, more connected and resilient Italy.
The Climate Transition Plan we developed is part of a transformation design we cannot implement by ourselves. That is why we have launched a programme to involve the entire supply chain on a path towards achieving ever higher environmental standards. We work alongside universities and research centres to pursue technological innovation. We engage with institutions to align our strategies with national and European objectives. We cooperate with local communities to turn every project into an opportunity to regenerate the territory. Recognition by the Carbon Disclosure Project (CDP) in the Leadership bracket with an A- score, testifies to the robustness of our approach and encourages us to always do better.
This Environmental Report represents our commitment to transparency and accountability. The following pages do not revolve only around numbers and targets. They also provide concrete evidence about the way we are turning words into actions, in the belief that a company's success is measured in its ability to generate value for future generations, the territory and communities.

Our vision for a sustainable future

1. OUR VISION FOR A SUSTAINABLE FUTURE

When we move our vehicles across Italy and Europe every day, we are not just transporting passengers and goods, we are carrying along the responsibility of caring for the territories we pass through. This awareness led the Ferrovie dello Stato Italiane Group to commit itself to defining its role in the landscape of sustainable mobility. Our Environmental Policy is the concrete expression of a vision that sees sustainability not as a constraint, but rather as an extraordinary opportunity to rethink the way we do business. Every kilometre of track, every bus we run, every mile travelled by our ships, every integrated mobility service becomes part of a larger design, where we help to improve the quality of life of people and territories. We do this by developing infrastructures that fully respect the landscape. By adopting compensatory measures to preserve the environmental characteristics of the territory and transport systems that are both efficient and environmentally friendly. By preventing, mitigating and eliminating the negative impact on natural resources, fauna, flora and habitats. And finally, by striving to restore biodiversity, through the creation of liveable urban spaces and limiting man-caused and climate-related phenomena.



MAIN PRINCIPLES OF THE ENVIRONMENTAL POLICY

Our action is based on eight interconnected principles that run parallel, like the tracks of a railway, and guide the Group towards a more sustainable future[1].

Compliance with the rules as the starting point
Full compliance with current environmental legislation and voluntary adoption of international standards and ISO 14001 certified management systems. This approach turns every environmental challenge into an opportunity to innovate and grow.

The net zero objective. A challenge that anticipates the future
Achieving zero net emissions by 2040 means being ten years ahead of EU targets, by rethinking the entire energy cycle, including upstream and downstream impacts across the value chain.

Building resilient mobility
We design and manage infrastructures capable of withstanding increasingly frequent extreme weather events. It is not just a matter of adapting, it means transforming our networks into resilient systems that guarantee continuity of service even under the most challenging conditions, providing citizens with reliable mobility under all circumstances.

Biodiversity as a heritage to be protected and restored
Over 17,000 kilometres of railway lines and 30,000 kilometres of roads run through some of Italy's most precious and delicate ecosystems. That is why we set specific protocols in place to manage construction sites in sensitive areas and invest in environmental restoration projects to compensate for our impact and to create new value for the territories.

Water, a resource that needs safeguarding
17% of the Italian territory is under a threat of desertification and many areas of the country are under high water stress. Our construction sites employ consumption monitoring methods and systems and invest in waste reduction technologies, while maintenance facilities are progressively adopting water recovery and reuse systems. Because every drop counts.

A circular economy business model
We have embraced the principles of circular economy to turn waste into a resource. By working alongside universities, companies and research centres, we promote innovation in the materials cycle, with the aim of reducing the need for raw materials and promoting sustainability.

A responsible value chain
Sustainability is not just an in-company matter. This is why we introduced stringent ESG criteria in our procurement processes and work closely with our partners to develop innovative solutions that reduce the environmental impact of the entire supply chain.

Transparency as a founding value
We believe transparency to be the stepping stone of any trusting relationship. By engaging in an open and constant dialogue with institutions, local communities, environmental associations and all our stakeholders, we can constantly improve and build shared solutions together. We adopt environmental certifications and appoint independent external accredited bodies with assessing our environmental declarations.

1. FS Italiane Group's Environmental Policy is available at Environmental Policy.

MAIN RESULTS

- Validation of the calculation method and inventory of greenhouse gas emissions caused by the transport chain, in accordance with the requirements set out in **Standard ISO 14083**
- **Validation of** medium- and long-term decarbonisation **targets** by **SBTi**
- **Verification statement** on GHG emissions inventory in accordance with Standard ISO 14064-1: 2018
- **A- rating** on the first integrated CDP Climate Change and Water Security Report
- **First mapping** of construction sites with potential impact on biodiversity
- **Renovation of** FS **environmental policy**
- Target of **2.2 GWp** of renewable capacity by 2034 set
- **Target of 16% reduction** in water withdrawals compared to 2019 **achieved**
- **97%** of special waste sent for recovery
- **709 km** of noise barriers built by 2024

THE ENVIRONMENTAL GOVERNANCE SYSTEM

To translate these principles into practice, we built a solid and participatory governance architecture, where every level of the organisation plays a crucial role.

Strategic vision at the top
FS Italiane's Board of Directors is in charge of the Sustainability Governance Model, which defines the governance and designs the management processes by which FS guarantees the integrated control over the three (economic, social and environmental) dimensions of sustainability, promoting their integration in the Group's business management.

The Sustainability Committee, where ideas draw their form
It is tasked, along with the Board of Directors, of supporting the resolutions concerning the sustainability profiles related to FS's operations and its dynamics of interaction with all stakeholders.

The Sustainability Strategies Committee[2]
Chaired by FS's CEO, with the CEOs of the Business Unit Lead Companies, the Chief Financial Officer and the Chief Corporate Affairs Officer as members, FS's Communication & Sustainability Officer ensures the integration of sustainability best practices into the Group's corporate strategies, and promotes sustainable development principles and values.

Integrated Project Team (IPT) - Sustainability Execution Team. FS's Sustainability Task Force
Its purpose is to facilitate discussions among Group companies on the main sustainability issues and initiatives suggested by the Companies and the Holding, promoting operational synergies and ensuring the adoption of a homogeneous and consistent methodological approach, within the Group, when drafting the Sustainability Plan. The IPT ensures the implementation of the Sustainability Governance Model, promotes coordination between the structures involved, applies the Group's guidelines and policies, and ensures that the sustainability plans are aligned with European regulations (e.g. CSRD and Taxonomy Regulations). It is also active in the development of environmental, social and responsible innovation projects to promote a culture of sustainability and disseminate ESG objectives within its companies.

The Chief Executive Officer
Plays a key role in **strategy definition**, providing the main guidelines to promote a sustainable business model.

The Chief Corporate Affairs, Communication & Sustainability Officer
In order to drive economic, environmental and social value for all stakeholders, it defines FS Group's strategies and the related planning, monitoring and strategic control processes.
The Chief Officer is in charge of defining the sustainability strategy, promoting and disseminating the policies and principles established at Group level, and developing, consolidating and monitoring related objectives and targets.

Sustainability Manager
Ensures the definition of strategic policies and guidelines to improve the Group's sustainability performance.

Environmental Management Systems - Sustainability in Everyday Business
For us, the ISO 14001:2015 certification represents a lot more than a statement of commitment: it is a tool we use in our day-to-day work. Through these systems, implemented by the parent company and the main subsidiaries, every process is analysed, every impact assessed and measured, every opportunity for improvement seized. This capillary work involves thousands of people and produces tangible results. From reducing energy and water consumption, to optimising waste management, every small improvement contributes to a big change.

A DIVERSIFIED AND SPECIALISED ORGANISATION

The Group's organisation is split into five homogeneous business units that manage the specific operational and environmental requirements of each business area in a targeted manner.

Business Unit	
Infrastructure - Railways Business Unit	Led by Rete Ferroviaria Italiana (RFI), in charge of managing and developing the national railway infrastructure.
Infrastructure - Roads Business Unit	Led by ANAS, in charge of managing and maintaining the Italian road and motorway network.
Transport - Freight Business Unit	Led by FS Logistix, in charge of freight transport and integrated logistics.
Transport - International Passengers Business Unit	Led by FS International S.p.A., in charge of international-scale passenger transport services.
Transport - Passengers Business Unit	Led by Trenitalia, in charge of national passenger transport services.

2. The Sustainability Strategy Committee and Integrated Project Team were founded in July 2025.

KEY AREAS OF THE SUSTAINABILITY PLAN

The Group's Sustainability Plan focuses on the environment, and every area is decisive for the strategy's overall harmony.

Climate change: adaptation and decarbonisation

The energy transition is the core of our strategy that extends beyond the commitment to reduce emissions, by completely rethinking FS Group's relationship with energy. Our photovoltaic project is one of the largest energy self-production initiatives in Italy, flanked by environmentally sustainable solutions for non-electrified lines, the use of sustainable bio-fuels, and a systematic fleet renewal to include increasingly efficient vehicles.
In parallel, we are working on adapting our infrastructure to withstand heavy rain, heat waves and increasingly frequent extreme events. That is why we invest in advanced monitoring systems, consolidation works, and predictive technology that allow us to anticipate problems before they occur.

Biodiversity and ecosystems

Preserving biodiversity and protecting the ecosystems are also part of this circular vision. The Group's commitment goes in the direction of protecting and restoring natural ecosystems through concrete initiatives, by promoting biodiversity. Every protected species preserved, every natural habitat protected or restored, every ecosystem regenerated is our way of investing in the future. A future that should be based on infrastructure capable of bridging places, people and nature itself, driving social cohesion and collaboration between citizens, businesses and institutions.

Circularity of resources

Every year, we handle thousands of tonnes of materials, from railway ballast to metal components, from waste generated in maintenance sites to demolition materials. We strive to opt for non-virgin materials and apply sustainability criteria in our procurement processes, to face the challenge of turning outflow issues into a resource. And to tackle this issue, we introduced sustainability criteria into our procurement procedures, established relationships with suppliers who share our Environmental Policy and sustainability strategies, forged strategic alliances with key players in the Italian circular economy, and developed innovative projects for recovery, enhancement and user awareness.

In this perspective, the way the supply chain behaves plays another crucial role. FS Group's Sustainable Supply Chain Management changes the way procurement is done inside the Group, with price and quality being complemented by an all-round assessment that includes an ESG performance of our suppliers.

This approach transforms the supply chain from a potential critical process to a strategic lever to multiply the Group's positive impact. Because sustainability is not just an in-company matter, it spreads throughout the supply chain, creating shared value for the entire system.

The pillars of the sustainable supply chain programme:

- **ESG rating for 100% of suppliers by 2026**: each supplier is assessed, based on environmental, social and governance parameters
- **5,000 suppliers involved in the improvement path by 2026**: training, support, sharing of best practices
- **Recognition**: for those with a solid ESG profile
- **Audits and verifications**: desk and field checks to ensure compliance with standards

OBJECTIVES: WHERE WE WERE, WHERE WE ARE, WHERE WE ARE GOING

CLIMATE CHANGE MITIGATION

The starting point
2019

In 2019, base year for our climate-related targets, the Group's total emissions amounted to over 7 million tonnes of CO_2e. This data prompted us to accelerate change, by focusing on investments in energy-efficient initiatives, energy self-production, and other innovative initiatives targeted at the value chain.

Where we are today
2024

- Sustainability targets validated by the Science Based Targets initiative (SBTi)

Where we are headed

2030:
- -50% Scope 1 and Scope 2 emissions
- -30% Scope 3 emissions[3]
- 1.1 GW of installed capacity from renewable sources by 2029

2040:
- Net zero emissions

WATER RESOURCES

The starting point
2019

In 2019, base year for our water-efficiency-related targets, we started with the Group's water withdrawals to define an increasingly conscious and sustainable management of water resources.

Where we are today
2024

- We withdraw 17 million cubic metres per year to provide our services
- 16% reduction in the water volume withdrawn compared to 2019
- Launch of Water Circular Economy pilot projects in maintenance plants for water reuse and recycling
- Increased distributed water quality analyses to almost 10,000 runs per year
- Recognition of areas subject to water stress related to operational sites

Where we are headed

2031:
- 100% of water networks monitored

2040:
- -50% water consumption compared to 2019
- 20% water reused and recycled through dedicated plant solutions
- Fully circular management of water resources
- Maximised reuse of purified water
- Zero waste through smart networks and predictive maintenance
- Leadership in water management in the transport sector

CIRCULAR ECONOMY AND WASTE MANAGEMENT

The starting point
2019

In 2019, with more than 15K tonnes of unsorted municipal waste, the Group embarked on an ambitious path towards a circular economy model that would maximise waste prevention and waste recovery and minimise material consumption.

Where we are today
2024

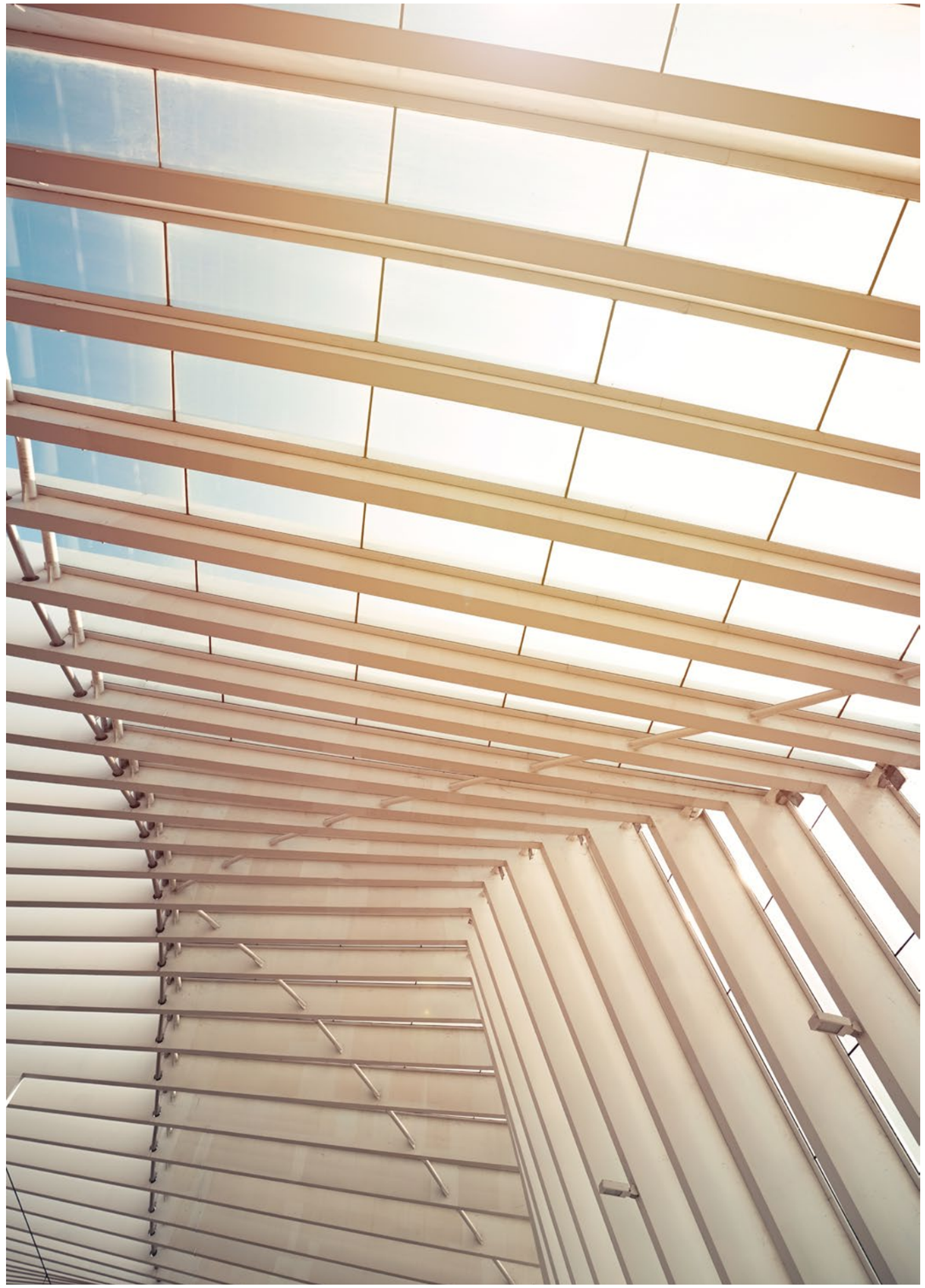
- 97% of special waste sent for recovery
- 34% reduction of unsorted municipal waste compared to the 2019 production figure
- 45% sorted municipal waste

Where we are headed

2028:
- -50% unsorted municipal waste compared to 2019
- 70% of sorted municipal waste
- ~100% of special waste sent for recovery
- 80% of the steel we employ comes from recycled materials with a low carbon footprint (by 2033)

This challenging yet solid path is supported by targeted investments and the commitment of all our people. Sustainability is not a destination, it is a journey we take together. And as in any journey, the route you take makes all the difference.

3. Reduced scope related to RFI construction sites - energy supply - use of RFI network by operators outside FS Group



Our environmental performance

2. OUR ENVIRONMENTAL PERFORMANCE

Purpose of the Group's core business, based on integrated and sustainable mobility, is to limit the transport sector's environmental footprint, by reducing traffic, pollution and emissions, and improving the quality of life and the ecosystems.
FS Group turns the environmental strategies into day-to-day actions. It is committed to reducing its impact and consumption, by enhancing efficiency along the value chain. Monitoring consumption and impact levels is essential to understand where we are headed, and to identify critical issues, areas for improvement and target interventions for reduction, prevention and continuous improvement.

2.1 CLIMATE CHANGE: ADAPTATION AND DECARBONISATION

Climate change is one of the most urgent challenges of our time, and FS Group has chosen to play a leading role in the country's ecological transition. With a rail network that stretches over 17,000 kilometres, a road network of over 30,000 kilometres, and a public transport fleet that serves millions of people every day, we are fully aware of our responsibility. In Italy alone, the group accounts for around 2% of electricity consumption - an extraordinary opportunity to drive change towards sustainable mobility.
FS Group's energy management model is articulated through an integrated monitoring and optimisation system:

- **Progressive electrification** of networks and fleets, in the attempt to reduce dependence on fossil fuels
- **Energy efficiency** systematically applied to vehicles, buildings and installations, to optimise every kilowatt/hour consumed
- **Renewable energy production**, to become increasingly self-sufficient and reduce our carbon footprint
- **Phasing out fossil fuels** also with alternative fuels such as HVO or hydrogen, whenever possible.

THE ENERGY MANAGEMENT MODEL

The energy management model represents an integrated ecosystem, where technology, innovation and sustainability converge to create shared value.
Through continuous monitoring, we know exactly where and how we use energy, and are able to identify immediate opportunities for improvement through management systems that make the performance of the Group's assets visible.
Optimised consumption means concrete actions that make a difference, every single day. Smart parking systems, for instance, minimise consumption automatically when trains are parked. LED lighting cuts consumption by up to 90% compared to previous technologies. An additional technology involves energy recovery during braking: every time a train slows down, its energy is captured and fed backward into the grid.
The energy transition is supported by the gradual abandonment of fossil fuels, with a plan to increase the railway network's electrification, which is already over 70% complete. Where electrification is not yet possible, alternative fuels such as HVO biodiesel and green hydrogen are currently being considered to drastically reduce emissions.

OPTIMISED CONSUMPTION

- Smart parking and efficient driving systems
- LED lighting and smart air conditioning systems
- Regenerative braking
- Energy management in offices, workshops, stations and other buildings

ENERGY TRANSITION

- Progressive phase out of fossil fuels
- Introduction of alternative fuels (HVO, hydrogen)
- Network electrification

CLIMATE COMMITMENTS

As a Group, we have made concrete and measurable commitments that are 10 years ahead of the European net zero emissions by 2040 targets:

- **Net zero by 2040**
- **Science Based Targets initiative (SBTi)** - Targets validated in early 2024, in line with the Paris Agreement to limit global warming to 1.5°C compared to the pre-industrial era
- **ISO 14064:2018** - GHG emissions inventory verification statement for 2024, obtained annually since 2022
- **UNI EN ISO 14083:2023** - Standardised method for quantifying transport emissions for 2024, obtained annually since 2023
- **Carbon Disclosure Project (CDP)** - Annual reporting on climate performance for 2024, obtained since 2021

From 2024, the data source for rail traction electricity consumption is no longer based solely on train-km, instead it uses a virtual metering system that takes into account various rail traffic related parameters: number of stops, average gradient, weight of passengers or goods transported, train configuration, and lines used.
Given the complexity, variability and type of energy consumption of FS Group operations, both location-based and market-based emission reporting methods are used.

The **Market Based** approach assigns a CO_2e emission factor of zero for energy consumption from certified renewable sources.

The **Location Based** approach considers an average CO_2e emission factor in the calculation based on the national energy mix.

CLIMATE TRANSITION PLAN

The Group's Climate Transition Plan is the roadmap that turns investment decisions and operational choices into action, integrating sustainability into corporate governance and the Group's industrial and financial plans, with measurable targets, concrete initiatives and well-defined actions.
Its purpose is to guide all the Group's activities towards **net zero emissions by 2040**, by gradually reducing **greenhouse gas emissions** (Scope 1, 2 and 3), improving **infrastructure resilience** and promoting **sustainable mobility**, encouraging the use of trains and public transport instead of private cars and road logistics (modal shift).

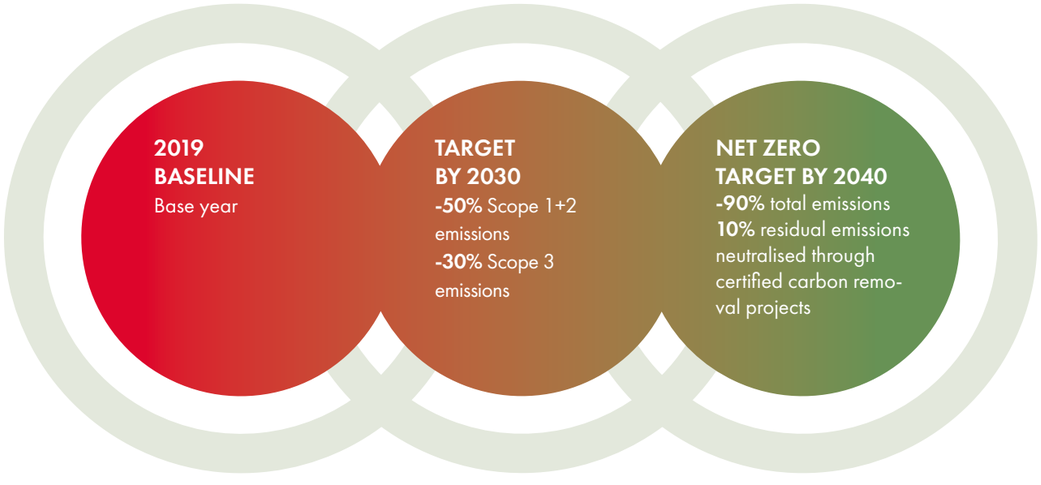
The term **net zero** refers to the elimination of net CO_2e emissions throughout the entire value chain, with offsetting of residual emissions.

Scope 1	Direct emissions generated by the company (source owned or controlled by the company).
Scope 2	Indirect emissions generated with energy purchased by the company. These are emissions physically produced outside the company.
Scope 3	They are the result of activities generated by the value chain of the reporting company, both upstream and downstream.

TOWARDS NET ZERO BY 2040

Achieving net zero emissions by 2040 means radically rethinking every business aspect, from the energy source that powers our trains to the way we heat our stations.

For those travelling with us, this will mean fully decarbonised services and zero-emission mobility.



NET ZERO
How can we get there:
90% reduced emissions compared to 2019
10% residual emissions neutralised
What it means for our services:
More electric or hydrogen/biofuel trains
Implementing modal shift across the value chain
Electric or alternatively powered buses
Carbon neutral infrastructure
Use of carbon offsets

The Group's goal for the 2025-2029 period is to save up to **30 $MtCO_2e$** through the **modal shift**.

ENERGY CONSUMPTION

Consumption by source

Electricity dominates our energy balance, accounting for over 77% of the total. This is strategically positive, as electricity is the most easily decarbonised energy carrier. For uses other than railway traction, more than 80% of this electricity already comes from renewable Guarantees-of-Origin-certified sources.
Diesel still accounts for around 17.8% of consumption, mainly to power trains on non-electrified railway lines, and part of the road fleet. Consumption is mainly destined to railway traction on non-electrified lines (more than 50%), local public transport (about 25%) and shipping (about 11%).

Natural gas, which accounts for 3.3% of the total energy consumption, is mainly used for heating buildings (around 86%), for public transport (around 13%), and industrial activities and motor vehicles (around 1%).
Biofuels and other alternative sources are growing significantly, with about 7.1 million litres of HVO being consumed in 2024 between Trenitalia, Qbuzz and Mercitalia S&T.

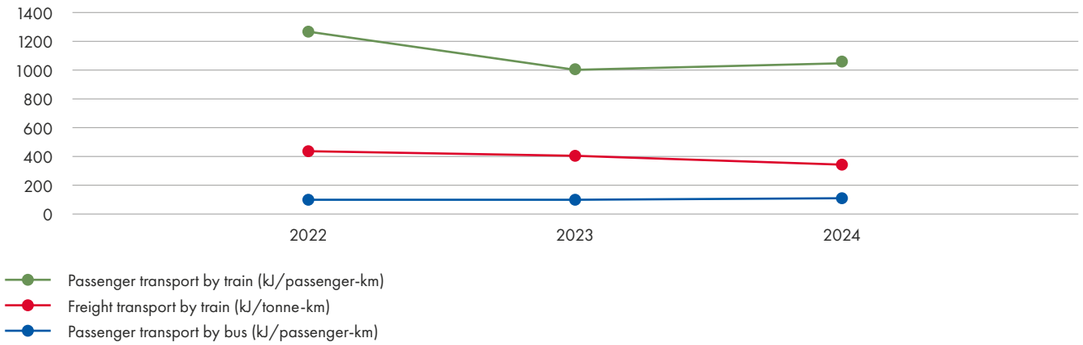
Electricity	Unit of Measurement	2024	2023
Railway traction	MWh	5,162,365	4,919,242
Electrical services	MWh	698,253	670,182
Local public transport	MWh	40,763	36,601
Street lighting	MWh	324,758	354,610
TOTAL	**MWh**	**6,226,139**	**5,980,635**

Diesel	Unit of Measurement	2024	2023
Railway traction	l	74,765,021	86,027,639
Transport fuel (public transport)	l	35,576,911	39,957,900
Navigation	l	16,365,539	18,879,866
Transport fuel (motor vehicles and work vehicles)	l	15,024,335	14,080,779
Heating	l	2,657,849	2,502,531
Generator sets	l	266,016	254,486
TOTAL	**l**	**144,655,671**	**161,703,201**

Natural gas	Unit of Measurement	2024	2023
Heating	sm^3	24,056,815	23,593,021
Transport fuel (public transport)	sm^3	3,700,552	4,078,598
Industrial activities, transport fuel (motor vehicles and work vehicles)	sm^3	208,172	207,362
TOTAL	**sm^3**	**27,965,539**	**27,878,981**

FS Group's overall consumption in 2024 broken down by intended use, including all energy carriers, accounts for railway traction (about 74%) as the first use, followed by electrical services (about 9%) and public road transport (about 4%).

CHART 1 - FS GROUP SPECIFIC FINAL CONSUMPTION



Energy efficiency: planning, optimising, improving
Energy efficiency is the result of thousands of small optimisations that add up to create a significant impact.
Rail transport
• Emission intensity: 30.9 gCO_2e/pass*km
• Traffic on the electrified network: 94.1% (passengers)
Road transport (HDV)
• Emission intensity: 69.1 gCO_2e/pass*km
• Low-emission fleet: 81.06%
Freight Transport
• Traffic on the electrified network: 99.6%

SCOPE 1, 2 AND 3 EMISSIONS

Total Scope 1+2 (location-based) emissions in 2024 are 2,518,138 tCO_2e, up 12.6% compared to 2023. Part of the increase is due to external factors and the expansion of the reporting scope.

Scope 1 Direct emissions	2024	586,492 tCO_2e	**% variation 2024 vs 2023: -1.7%**
Trends and commentary	2023	596,515 tCO_2e	In 2024, diesel fuel for rail transport remains the main component (221,076 tCO_2e), followed by diesel fuel for public road transport (79,535 tCO_2e) and land use change (84,873 tCO_2e).
Scope 2 location-based emissions	2024	1,931,646 tCO_2e	**% variation 2024 vs 2023: +17.9%**
Trends and commentary	2023	1,638,946 tCO_2e	Scope 2 location-based emissions in 2024 increased mainly due to the increased electric rail traffic and the increased electric emission factor. Electric rail traction accounts for the largest share (1,601,309 tCO_2e), followed by other electricity uses (213,713 tCO_2e) and street and tunnel lighting (100,415 tCO_2e).
Scope 3 emissions(value chain)	2024	8,347,521 tCO_2e	**% variation 2024 vs 2023: +63.1%**
Trends and commentary	2023	5,116,694 tCO_2e	In 2024, Scope 3 emissions increased substantially mainly due to: • ***Capitalised assets*** (6,324,783 tCO_2e): the increase compared to the previous year reflects greater investment in RFI infrastructure and construction sites, including NRRP projects • ***Use of infrastructure by third parties*** (764,529 tCO_2e): linked to increased traffic by third-party operators • ***Upstream energy supplies*** (750,409 tCO_2e): linked to the increase in emission factors of European energy mixes • ***Upstream transport and distribution*** (431,939 tCO_2e): new category included in 2024

Direct and indirect emissions (location based) - source	Unit of Measurement	2024	2023	% Δ 24/23
Railway traction electricity	tCO_2e	1,601,309	1,348,198	18.8%
Electricity for other uses	tCO_2e	213,713	179,596	19.0%
Electricity for street lighting	tCO_2e	100,415	95,665	5.0%
Other*	tCO_2e	16,209	15,487	4.7%
TOTAL Scope 2 location-based	**tCO_2e**	**1,931,646**	**1,638,946**	**17.9%**
Diesel	tCO_2e	403,262	450,352	-10.5%
Natural gas	tCO_2e	56,824	56,257	1.0%
Other**	tCO_2e	126,406	89,906	40.6%
TOTAL Scope 1	**tCO_2e**	**586,492**	**596,515**	**-1.7%**
TOTAL Scope 1 + 2 (location-based)	**tCO_2e**	**2,518,138**	**2,235,461**	**12.6%**

(*) Electricity for LPT and company cars, district heating and cooling
(**) Petrol, LPG, fuel oil, HVO, pellets, fugitive and land-use change emissions

Emissioni totali indirette Scope 3	Unit of Measurement	2024	2023	%Δ 24/23
- Purchased goods and services	tCO_2e	20,502	11,138	+84.1%
- Capital goods	tCO_2e	6,324,783	4,012,866	+57.6%
- Fuel and energy-related activities	tCO_2e	750,409	416,992	+8.0%
- Upstream transport and distribution*	tCO_2e	431,939	0	N.A.
- Use of railway infrastructure by other railway companies	tCO_2e	764,529	596,961	+28.1%
TOTAL indirect Scope 3 emissions (relevant categories - GHG Protocol)	**tCO_2e**	**8,292,162**	**5,037,957**	**+64.6%**
- Waste generated during operations	tCO_2e	11,858	13,133	-9.7%
- Business trips (including air travel and hotels)	tCO_2e	9,818	7,231	+35.8%
- Employee commuting	tCO_2e	23,395	49,743	-53.0%
- Downstream leased assets	tCO_2e	10,287	8,629	+19.2%
TOTAL indirect Scope 3 emissions (non-relevant categories - GHG Protocol)	**tCO_2e**	**55,358**	**78,737**	**-29.7%**
TOTAL	**tCO_2e**	**8,347,521**	**5,116,694**	**+63.1%**

*Category activated in 2024, previously included in Cat. 2

Emission breakdown

The breakdown of CO_2e emissions is the detailed breakdown of carbon dioxide equivalent emissions, and highlights the elements that contributed to the difference in emissions between 2023 and 2024.
The first chart shows Scope 1 and 2 emissions, while the second chart shows Scope 3 emissions.

CHART 2 - BREAKDOWN OF SCOPE 1 AND 2 EMISSION VARIATIONS (TCO_2E)

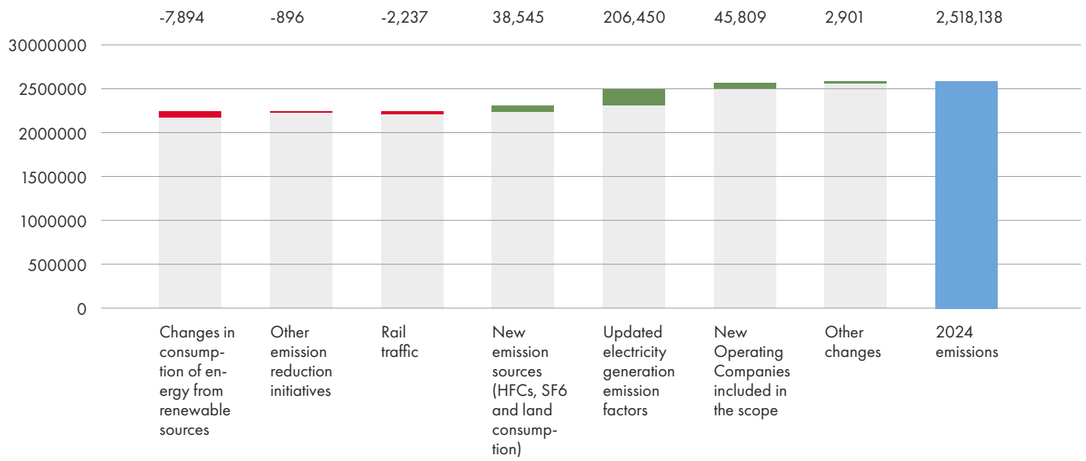
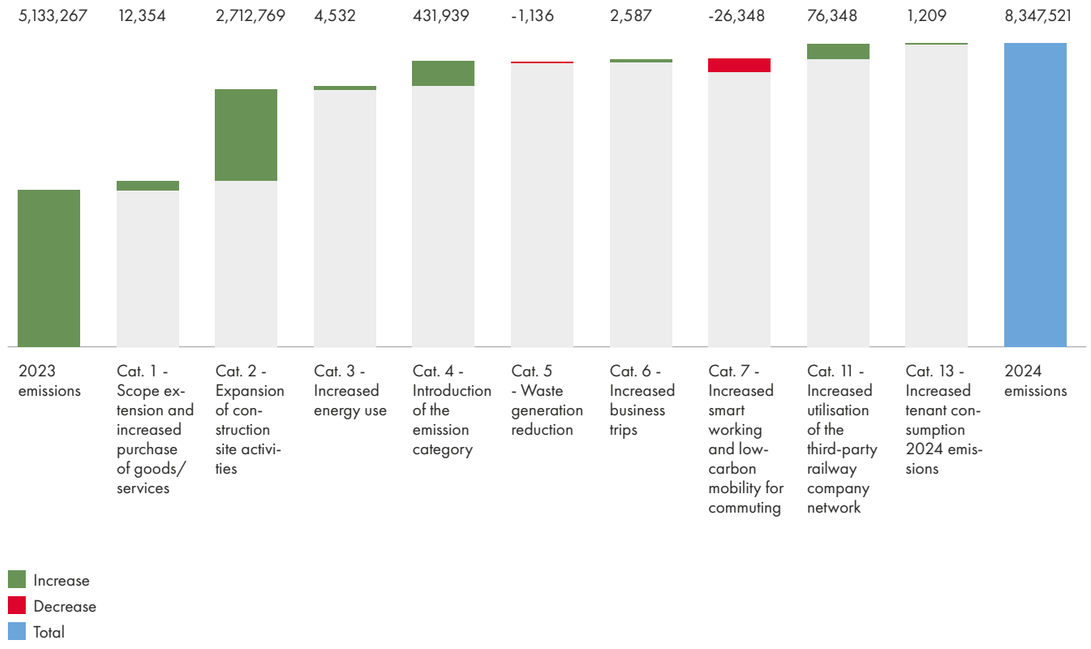


CHART 3 - BREAKDOWN OF SCOPE 3 EMISSION VARIATIONS (TCO_2E)



OTHER EMISSIONS

In addition to climate-changing emissions, emissions of air pollutants with a direct impact on air quality and public health are also closely monitored. 2024 data show an encouraging picture, with stable or decreasing emissions despite increasing traffic.

5,428 tonnes
(-7.1% vs 2023)
NITROGEN OXIDES (NOx)

143 tonnes
(-6.7% vs 2023)
PARTICULATE MATTER (PM10)

216 tonnes
(+44.6% vs 2023)
SULPHUR DIOXIDE (SO_2)

Pollution abatement technologies: clean air for healthy ecosystems

Air pollution does not only affect humans. To protect biodiversity, all our plants releasing emissions into the atmosphere are equipped with advanced pollution abatement technologies:

- **High-efficiency filters** for particulate matter
- **Catalytic systems** for nitrogen oxide reduction
- **Abatement technologies** for sulphur dioxides
- **Continuous monitoring** of significant emissions with automatic systems

It is particularly encouraging to note that, despite a 10% increase in traffic over the last 3 years considered, emissions of particulate matter and nitrogen oxides have been decreasing, thanks to an ongoing fleet renewal, the adoption of greener technologies, and the implementation of increasingly effective pollution abatement systems. Sulphur dioxide emissions increased, as a result of the deterioration in the electricity generation mix.

MODAL SHIFT

The modal shift is the core of our environmental mission, and our most significant contribution to decarbonising the transport system.

In 2024, this commitment resulted in **5.8 million tonnes of CO_2e avoided**, an achievement that confirms the environmental and social value of our services. This number continues to grow, as more and more passengers opt for collective transport and goods transported by rail increase.

30 MtCO_2e
avoided by 2029 thanks to modal shift

This amounts to
5.8 million tonnes of CO_2e.

- The average annual absorption of 200 million trees[1]
- The emissions generates by almost 7 million Italian households[2]
- The emissions caused by around 3 million motor vehicles[3]

[1] Considering the average annual absorption of a tree to be between 10 and 49 kilograms of CO_2 (Towards carbon neutrality: Enhancing CO_2 sequestration by plants to reduce carbon footprint)
[2] Average consumption of an Italian family (ARERA)
[3] Considering the average mileage of Italian cars (ISTAT) and the emission factor of passenger cars (ISPRA)

25
67.6
116.3
kg of CO_2 per passenger on the Rome - Milan route
(source ecopassenger.org)

A change already underway. Some of the initiatives

Our initiatives are pieces of a larger puzzle that, once completed, will turn FS Group into a sustainability model for the global transport sector. Each project is designed to integrate with the others, creating a synergy that amplifies the overall impact.

Photovoltaic project

A total of 11 MWp of installed capacity was reached in 2024, and the plan calls for a significant acceleration between the end of the fifth and the tenth year.
The installation of photovoltaic systems planned by FS Group will achieve:

- 1.1 GWp by 2029
- 2.2 GWp by 2034

- Photovoltaic panels will be installed whenever possible:
- In decommissioned railway areas no longer functional for operation
- On station and workshop roofs, turning unused areas into power plants
- In station parking areas and car parks
- At road tunnel entrances
- In additional areas, through Power Purchase Agreements (PPAs)

Decarbonisation on non-electrified lines

Even though electrification is our main route, we are aware that some lines are bound to remain non-electrified due to technical or economic reasons. To address these situations, we are developing alternative solutions to bypass the need for fossil fuels.

HVO Biodiesel

HVO (Hydrotreated Vegetable Oil) is proving to be much more than just a temporary solution. Obtained from waste vegetable oils and agri-food industry scrap, this versatile biofuel offers a **79%[1] emission reduction** compared to fossil diesel (WTW methodology).

1.Source of the HVO emission factor: average of the values transmitted by Enilive for the 2024 Q1 supply period

Focus on the fleets

Fleet renewal is one of the most significant investments with the most immediate impact on air quality in our cities. The ongoing transformation is not just about numbers, it is also about the quality of life of millions of people who breathe less polluted air every day, thanks to our low-emission vehicles.

Railway fleet: Green innovation	In 2024, we welcomed over 100 new regional trains, representing a generational leap: • **-30% energy consumption** compared to the previous generation • **>93% recyclable materials**, designed for circular economy • **Regenerative breaking**, with each braking action capturing and feeding energy backward into the grid • **Top-of-the-range comfort** - Wi-Fi, USB sockets, smart HVAC	**Insight** Trains with triple power supply (electric, diesel, battery), represent the future of operational flexibility.
Local road public transport: 81.1% is already low-emission (Euro 6 diesel, GTL, biodiesel, electric, hydrogen)	The renovation plan includes a major boost: • **Complete Euro 0-3 phase out** - The most polluting vehicles will be eliminated • **80% green (electric or environmentally friendly) fleet by 2029** • **Smart features on all new vehicles** - Connectivity, telemetry, route optimisation	**Insight** The current fleet composition is an optimised technological mix: • **Euro 6 vehicles:** The most advanced standard for diesel engines • **Electric buses:** Zero local emissions, ideal for city centres • **Natural gas/hybrid buses:** Solid middle-ground solutions for low-carbon transition • **HVO/hydrogen buses:** Growing technological innovation as an alternative to fossil fuels
Freight Locomotive Fleet	In 2024, the fleet was renewed with the replacement of 20 E494 locomotives, generating multiple operational benefits: • **Optimized energy consumption** at all levels: **maximum recovery** of braking energy, with reinjection into the grid; **increased efficiency** due to improvements in the entire traction process; **reduced consumption** of auxiliary systems and onboard services. • **Reduced noise impact**, thanks to quieter engines and modern ventilation systems for traction components. • **Onboard well-being** for drivers: improved ergonomics and cabin comfort.	**Insight** 10 of the locomotives delivered in 2024 feature the “Last Mile” functionality: a dual power supply (electric and diesel) that allows connection to non-electrified areas, avoiding maneuvers with auxiliary locomotives.

Illustrative examples of energy efficiency initiatives

Energy efficiency is not only about large infrastructure projects, it also concerns a smart optimisation of our operations, down to the last aspect. The smart technologies we adopted prove how small innovations can generate big savings.

SMART PARKING **Energy-saving intelligence**	The Smart Parking system is an effective tool: • **Selective automatic shut-down** - Only the essential systems remain active • **Predictive HVAC** - AI-predicted thermal needs based on time and weather • **Optimised heating/cooling** - Maximum comfort, minimum consumption
BUILDING EFFICIENCY **Every watt-hour counts**	The transformation of buildings into energy efficient assets is moving forward on several fronts: • **LED lighting conversion** - With presence sensors and automatic dimming • **Heat pumps** to replace gas boilers • **Building Management System (BMS)** - A digital brain that optimises every parameter • **Integrated photovoltaic system** - Renewable technology can be installed on any roof
SMART WORKPLACE **Working better while consuming less**	The Smart Workplace programme transforms offices into smart environments: • **Widespread IoT sensors** - Constant temperature, humidity, CO_2, presence monitoring • **Adaptive HVAC zoning control** - Optimal control over heating, ventilation and cooling zones, only when needed • **Real-time dashboards** - Immediate display of consumption and faults.

Energy efficiency is not a cost, it is an investment that yields economic, environmental and quality-of-life benefits in the workplace. Every intervention count, toward building a future where technology and sustainability work together for widespread well-being.

2.2 CIRCULARITY OF RESOURCES

Non-renewable resources are becoming scarcer and scarcer, and FS Group has chosen to turn this challenge into an opportunity. Efficiency, water recovery and reuse methods, and the adoption of a circular economy become daily practices that reshape the way we operate. Following the Life Cycle Assessment (LCA) method, activities and processes are inspired by models where nothing is wasted and every resource finds a new life. A journey towards sustainability that has already begun and continues to accelerate.

What is the Life Cycle Assessment (LCA)

The Life Cycle Assessment is the compass that drives FS Group's sustainability choices. This method assesses the environmental impact of a product or service throughout its life cycle, from raw material extraction to its final disposal, passing through production, transport and use.
Applying a LCA logic means:

- Choosing materials with a smaller environmental footprint
- Designing with reuse and recycling in mind
- Minimising waste at every stage
- Exploiting end-of-life materials.

This approach turns every decision into an opportunity to reduce the overall environmental impact.

WATER RESOURCES

Water is life. In a country where 17% of the land area is estimated to be at risk of desertification[4], and where climate change causes increasingly frequent extreme events, from droughts to floods, responsible water management becomes an indispensable strategic priority.

FS Group's responsibility, with its 17 million cubic metres of water withdrawn mainly from public aqueducts in 2024, goes beyond numbers, and reflects in the territories it passes through, the communities it serves, and the future generations that will inherit the Planet we are currently shaping.

Water in FS Group has two core destinations:

84%
Civil use

Water quenches the thirst of travellers and employees in stations, offices, depots. It is employed in train, ship, headquarters and branch restrooms, and in station fountains. It promotes high hygiene standards, it keeps green areas irrigated, and is part of the daily lives of thousands of people.

16%
Industrial use

Water is used to maintain the quality of transport vehicles, for cooling or heating up the systems, and powering maintenance processes. It ensures safety and efficiency.

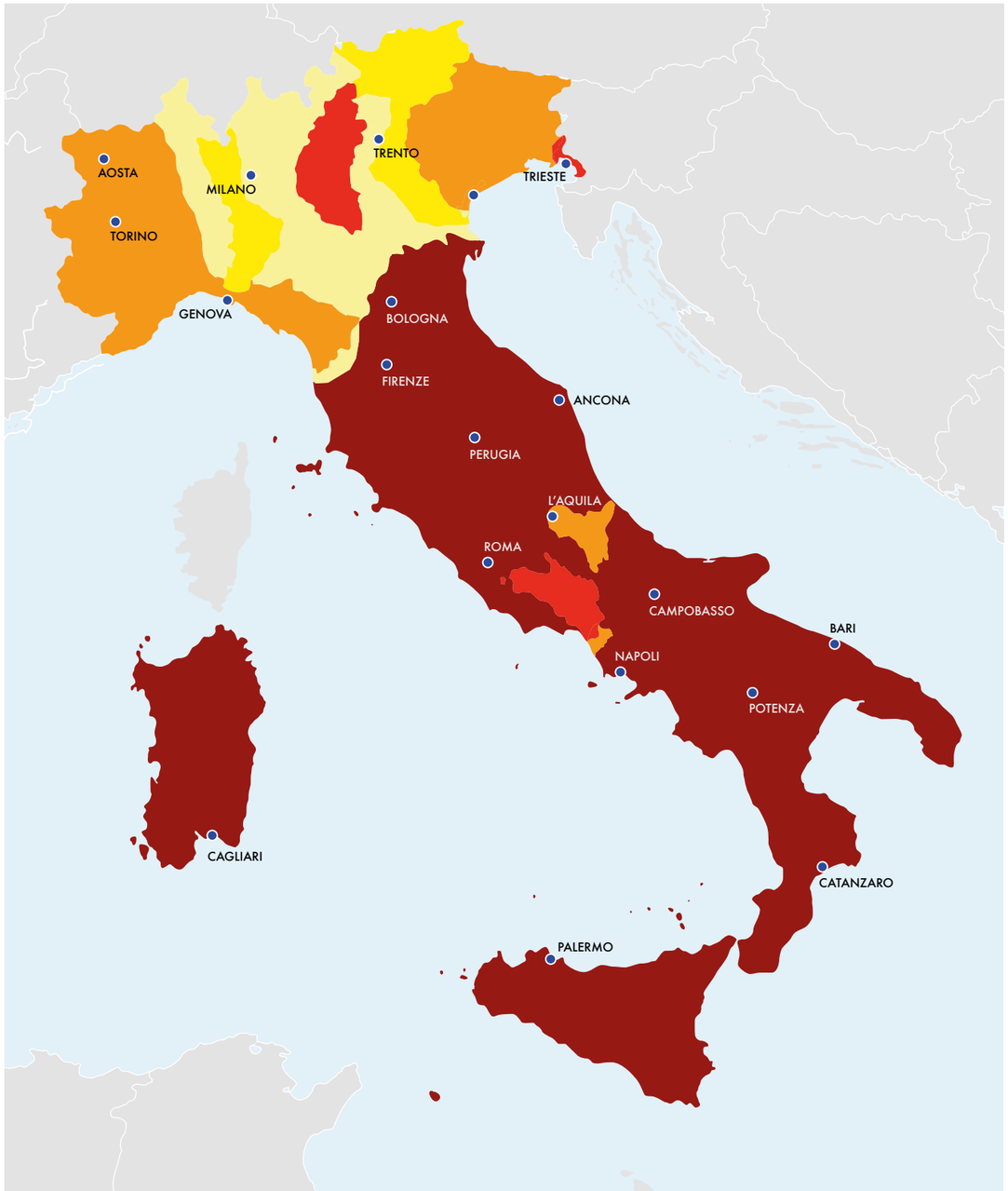
High water stress areas

One fact is more striking than others: more than 70% of the water volume is withdrawn in water-stressed areas. In these territories, the water demand - in certain periods of the year - significantly exceeds its availability, and here every drop counts, aquifers and water reticulations are being progressively reduced, along with the natural receptive and purifying capacity of watercourses.

According to the World Resources Institute, these very large areas - often involving entire river basins - are mainly found in Central and Southern Italy, and require a particularly careful and responsible approach. It is not just a matter of regulatory compliance, it is a matter of survival for the territories, the communities who live there, the companies who work there. It is also a matter of business continuity for the Group's core activities.

4. ISPRA, DEGRADO DEL SUOLO | Indicatori ambientali, 2023 (SOIL DEGRADATION | Environmental Indicators)

FIGURE 1 MAP OF WATER-STRESSED AREAS. BASED ON DATA FROM WRI'S AQUEDUCT WATER RISK ATLAS.



WATER STRESS

Low (<10%)	Low-medium (10-20%)	Medium-high (20-40%)	High (40-80%)	Extremely high (>80%)

FROM CONSUMPTION TO REUSE

FS Group's vision for 2040 is as ambitious as it is necessary:

- -50% water withdrawals compared to 2019: Halving withdrawals means completely rethinking our relationship with water and investing in networks and innovative solutions.
- 20% water recovered and reused: Every cubic metre of water can have a second or even third life.
- 100% of internal water network monitored by 2028: Mapping, monitoring and adopting smart technologies to identify and manage leaks in real time, and measure performance to streamline processes and distribution networks.

Between 2019 and 2024, we have already reduced water withdrawals by almost 16%, despite an increase in the services provided. The 5-year trend shows a steadily decreasing curve: from around 20 million cubic metres in 2019 to 17 million in 2024.

Water figures in 2024

- **total withdrawals:** 17 million m³ (equivalent to the annual water consumption of a municipality with approximately 185,000 citizens)
  - **84% for civil use**
  - **16% for industrial use**
- **Trends:** -16% compared to 2019

Water discharges by destination:

- **Sewers:** 95.3%
- **Underground waters:** 0.4%
- **Surface waters:** 3.6%
- **Brackish waters:** 0.7%

The reduction in the volumes withdrawn is proof of the effectiveness of the path we have undertaken, through a more accurate network management, implementation of technological efficiency-enhancing solutions, and the growing awareness of users and operators.

Furthermore, guaranteeing the quality of the water distributed by the internal water networks is the way we commit before the thousands of people who use our services every day. Certified laboratories carry out routine analyses, by monitoring essential chemical and microbiological parameters.

Thousands of analyses are carried out every year to ensure that the water supplied in stations, trains, offices and workshops is always safe and of high quality. This comprehensive control system protects the health of workers, station users and travellers.

Water Circular Economy: an experimental project to change the rules of the game

Some of our workshops are now engaged in a project that is changing the way we think about water in railway installations. Water no longer runs along a linear flow - withdraw, use, discharge - it is now included in a virtuous circle where wastewater is reused in all permitted activities.
Instead of being purified and discharged into the final receptors, wastewater undergoes advanced tertiary treatment with reverse osmosis systems and chlorination. The water thus purified comes back to life in the same industrial processes or for other uses, such as washing trains, cooling plants, technological processes, and watering green areas. This close-loop cycle drastically reduces withdrawal from public aqueducts or water bodies.
This initiative requires significant investments, to install new portions of water networks, collection reservoirs, pumping systems, and dedicated purification and disinfection sections in the treatment plants. However, the environmental benefits far outweigh the costs, both in sustainability and economic terms.

FROM LINEAR TO CIRCULAR ECONOMY: A CULTURAL REVOLUTION

Each year, FS Group handles a significant material flow, mainly related to the construction and maintenance of infrastructure and the vehicles and systems using that infrastructure, the most significant of which are:

- **259,250 tons** of steel for railway track construction
- **149,077 tons** of pre-stressed reinforced concrete sleepers

FIGURE 2 QUANTITY OF RELEVANT MATERIALS PURCHASED IN 2024 BY FS GROUP.

FS GROUP MATERIALS	UNIT OF MEASUREMENT	2024
Steel for railway superstructures and technological systems	t	259,250
Anti-freeze solutions	kg	133,823
Batteries for industrial use	kg	496,535
- From recycled materials (3%)	kg	16,143
Technical gases	kg	156,141
Lubricants	kg	529,713
Road salt	t	14,232
Solvents	kg	15,113
Chemicals	kg	590,938
Pre-stressed reinforced concrete sleepers	t	149,077
- From recycled and recovered materials (14%)	t	20,968
Wooden sleepers	t	5,346
- From recycled and recovered materials (5%)	t	242
Paints	kg	370,749

The diversity of waste: a mirror of its operational complexity

FS Group's waste tells the story of its businesses:

- **Special waste: over 96% by weight of the total:** Generated by construction and maintenance of infrastructure and vehicles. Construction and demolition materials, soil and rocks, iron and steel account for 82% by weight of the non-hazardous special waste generated.
- **Municipal waste: less than 4% by weight of the total:** Generated in areas open to the public and in company buildings.

Managing waste sorting requires specific skills, dedicated processes and an overall view to turn complexity into opportunity.

L'Alleanza per l'Economia Circolare

Circular economy is a philosophy that turns waste into resources, extends the life of materials, and reduces dependence on virgin raw materials. FS Group has embraced this approach with conviction, by joining the Alleanza per l'Economia Circolare (Circular Economy Alliance), a network that brings Italian industrial excellence together, with the goal of preserving natural capital by combining competitiveness and sustainability.

FS Group is an active member of the Alliance, a network promoting a transformational economy.

Principles of the Manifesto that drive our action:

- **Preserving natural capital:** every resource employed should generate as much value as possible
- **Designing for the future:** thinking about a product's life, from beginning to end
- **Working together for innovation:** sharing knowledge and best practices
- **Measuring to improve:** constantly monitoring circularity performance.

This concrete commitment translates into daily actions and measurable results.

NEXT STOP: 100% SPECIAL WASTE RECOVERY BY 2031

The goal is ambitious: eliminating all forms of hazardous waste disposal[5] by 2031.
And this goal requires:

- Redesigning processes to minimise waste production
- In-depth technical assessments of materials and goods procured
- Developing new recovery and exploitation chains
- Working alongside circular economy experts
- Investing in innovative treatment technologies

From the current 96% to 100%: the last percentage points are the most difficult to achieve.

Circularity in a nutshell

Special waste in 2024:

Total waste:	Total production:	Percentage recovered:
313 thousand tonnes	**293** thousand tonnes	**97%**

Materials used with recycled content:

Steel made of recovered and recycled materials:	Pre-stressed reinforced concrete sleepers made of recycled and recovered materials:	Sleepers made of recycled and recovered wood:	Industrial batteries made of recycled materials:
14,569 tonnes (6% of total)	**20,968** tonnes (14% of total)	**242** tonnes (5% of total)	**16,143** kg (3% of the total)

The constantly improving special waste recovery performance proves the effectiveness of the policies we adopted, and the growing adherence to a circular model.

5. This is the final and residual stage of waste management, where those materials that cannot be recovered or utilised further end up.

The second life of railway equipment

FS Group, through its companies, handles thousands of tonnes of rolling stock that reach their end of life every year, including rails, sleepers, switches, metal components. Materials that were once not fully exploited now become raw material for new production cycles.
The sustainable management process includes:

- A **careful selection** of the materials, based on their state of preservation
- **Preparation** of still efficient components **for reuse**
- **Recovery** of steel and other metals for producing new railway equipment
- **Use for energy production** of materials not otherwise recoverable

SUSTAINABLE PROCUREMENT

Building a sustainable future means involving the entire supply chain. Integrating and consolidating sustainability considerations in the management of its supply chain, is a fundamental condition for improving the Group's economic, environmental and social performance.

How the suppliers ESG rating works:

Starting in **2024**, a free digital platform has been launched to assess the environmental, social and governance performance of the economic operators that work with the Group. The system acts like a sustainability traffic light, by assigning a **rating between E (minimum) and A+ (maximum)** based on over 100 criteria.
The results to date are the following:

- **452 suppliers** registered
- **5,000 operators** to be engaged by 2026
- **100% of new suppliers** assessed according to ESG criteria from 2026

Sustainability becomes a selection criterion with a concrete impact on tenders.
It is not a matter of evaluating, it is a matter of growing together and accompanying suppliers along the path to improvement, through:

- **Desk and on-site audits** to verify performance statements
- Personalised **remediation plans** to fill gaps
- **Training and support** to implement sustainability best practices
- **Knowledge sharing** through the collaborative platform

This transformation is a paradigm shift that transforms suppliers from mere executors to **sustainability partners**.
Every improvement in the supply chain translates into:

- **Reduction of Scope 3 emissions**, generated by the value chain
- **Material innovation**: more recycled steel and certified wood, and glyphosate elimination by 2030
- **Amplified circular economy**: when all suppliers adopt circular practices, the impact is multiplied
- **System resilience**: a sustainable supply chain is stronger when future challenges arise

By choosing to work with the FS Group, suppliers must embrace this vision, and help to build a transport system that not only moves people and goods, but also safeguards the Planet for future generations.

2.3 BIODIVERSITY AND ECOSYSTEMS

Biodiversity is the living fabric of the ecosystems that make up our planet. Every species, every habitat, every ecosystem contributes to the complex web of relationships that makes life on Earth possible. The 2030 National Biodiversity Strategy, promoted by the Ministry of the Environment and Energy Security, emphasises the necessity of preserving and enriching the natural capital and ecosystems to ensure the survival of socio-economic and cultural systems.
For FS Group, which crosses Italy from North to South, with 17,000 kilometres of railway infrastructure and more than 30,000 kilometres of road infrastructure, protecting biodiversity is not just a regulatory obligation. It is a profound responsibility towards the territories, the people who inhabit them, and future generations.
Our new infrastructure can be a barrier to wildlife, fragment valuable habitats, and alter millennia-old balances. But they can also become ecological corridors, refuges for endangered species, workshops where progress and nature coexist.
And we chose to pursue the latter.

THE GROUP'S APPROACH TO BIODIVERSITY

The FS Group's approach to biodiversity is structured around the promotion of a mitigation hierarchy applied throughout the project life cycle:

1. **Avoiding the unnecessary**
   The first rule is not to build unless strictly necessary. Each new project evaluates all possible alternatives to avoid protected natural areas or endangered habitats.

2. **Mitigating and coexisting**
   We develop specific strategies to minimise any impact. Wildlife crossings and fences designed to ensure habitat continuity, along with noise barriers that also protect fauna from sound pollution, acoustic barriers that also protect against noise. Each measure is designed to help infrastructure and nature coexist.

3. **Regenerative compensation**
   When it is not possible to completely eliminate residual impacts, we take action through conservation or restoration initiatives in other areas of the affected habitats. Rather than 'setting accounts', this is all about restoring and possibly increasing the overall value of biodiversity.

In this context, once we decide to move on with a project, we conduct in-depth analyses to identify all the environmental factors involved and the potential risks to flora and fauna.

WIDESPREAD PRESENCE, WIDESPREAD RESPONSIBILITY

The numbers speak for themselves: 1,915 Group sites are located in or near biodiversity-sensitive areas. These are mainly stations or old operating sites that are now incorporated into the territory, and often pre-date the establishment of the protected areas. Of these, 86% fall within the Natura 2000 network, the European Union's main instrument for biodiversity preservation.

Such a widespread presence could be seen as an issue. We see it as an opportunity to be active custodians of an extraordinary heritage. In particular, in many territorial contexts, the railway infrastructure was established before the creation of protected areas, representing an opportunity to make the network a true gateway for responsibly enjoying these natural treasures.

FROM PRINCIPLE TO ACTION: MAPPING AND PLANS FOR BIODIVERSITY PROTECTION AND ENHANCEMENT

FS Group manages an infrastructure heritage located inside or passing through areas of extraordinary natural value.
In light of this responsibility, by operational plans will be defined to translate environmental protection principles into measurable actions, with clear objectives and assigned responsibilities.
These plans will include:

- **Biodiversity hotspots** in railway areas not directly involved in railway operations, transforming marginal spaces into protected areas for endangered species and green spaces available to citizens
- **Ecological corridors and wildlife passages** to ensure infrastructural permeability
- **Compensatory measures** to restore and increase the overall biodiversity value of the territories crossed.

1,915 sites are located within or near biodiversity-sensitive areas, **86% of which are located in Natura 2000 areas**, the main European instrument for nature conservation.

A geography of responsibility

- **1,915** total sites in biodiversity-sensitive areas
  - **86%** in Natura 2000 areas
  - **Type of Natura 2000 areas:** Special Areas of Conservation, Sites of Community Interest, Special Protection Areas

Mitigation measures taken:

- **Noise barriers:** 723 km completed (494 km rail + 228 km road)
- **Wildlife passages:** implemented in all new projects crossing ecological corridors
- **Eco-friendly lighting:** to reduce the impact on nocturnal wildlife

SUSTAINABLE CONSTRUCTION SITE MANAGEMENT: WHERE BIODIVERSITY MEETS ENGINEERING

Construction sites hold the greatest potential impact on biodiversity. That is why we have developed an integrated approach that turns each construction site into a laboratory for sustainability.

- **Ongoing environmental monitoring**
  Expert teams conduct periodic inspections and surveys to verify the effectiveness of mitigation measures
- **Circular land management**
  97% of the earth moved is reused, minimising land consumption and impact on new habitats
- **Recycled materials**
  31% of the materials used come from recycled sources, reducing pressure on natural resources
- **Expert training**
  Each contractor must prove specific environmental management skills

To this end, where appropriate, environmental impact assessment procedures are planned to determine whether.

Biodiversity in soil and subsoil management

Protecting biodiversity from the bottom up, literally. Just like water, soil is a complex ecosystem fulfilling many ecological, economic and social functions.
Our best practices include:

- **Soil analysis**
  Before any intervention, we analyse the quality of the soil to preserve its characteristics
- **Protection during works**
  Specific techniques to minimise compaction and preserve the soil functions
- **Post-operative restoration**
  Reintegration of organic matter and re-population of beneficial micro-organisms
- **Long-term monitoring**
  Assessment of the effectiveness of measures taken over the years

Management and operational measures are implemented on operational sites to prevent contamination, reduce the use of hazardous substances, carry out infrastructure works and maintain drainage networks to prevent underground wastewater leaks. These practices apply, for instance, to diesel distributors, underground tanks, liquid collection tanks, storage of environmentally hazardous liquid materials and vehicle garaging activities that may cause grease or mineral oil spillage.

Certified excellence: governance and environmental management in FS Group

3. CERTIFIED EXCELLENCE: GOVERNANCE AND ENVIRONMENTAL MANAGEMENT IN FS GROUP

FS Group's path towards environmental sustainability is also based on an approach inspired by a transparent and fair management and communication of environmental impacts. For years, the Group has been adopting management systems and other tools for certifying environmental statements, validated by independent entities that comply with the highest international standards, to document environmental commitment through structured, measurable and constantly improving processes.

COMPANY	MANAGEMENT SYSTEMS							OTHER STANDARDS
	QUALITY ISO 9001	ENVIRONMENT ISO 14001	HEALTH AND SAFETY ISO 45001	SOCIAL GENDER EQUALITY UNI/PDR 125:2022 SA 8000	ROAD TRAFFIC SAFETY ISO 39001	ASSET AND PROPERTY MANAGEMENT ISO 55001	PREVENTION OF CORRUPTION ISO 37001	
FS Italiane		✓	✓	✓			✓	UNI EN ISO 14064-1:2019 UNI EN ISO 14083:2023
RFI	✓	✓	✓			✓		
Trenitalia	✓	✓	✓					UNI EN 13816:2002 UNI EN 15085-2:2020
Italferr	✓	✓	✓					UNI/PdR 74:2019 UNI EN ISO 14064-1:2019
Busitalia Sita Nord	✓	✓	✓	✓				UNI EN 13816:2002
Ferservizi	✓	✓	✓					
Mercitalia Logistics*	✓	✓	✓					UNI EN ISO 14067:2018
FS Sistemi Urbani		✓		✓				
Ferrovie del Sud-Est	✓	✓	✓		✓	✓		UNI EN 13816:2002
Anas	✓	✓	✓		✓		✓	UNI/PdR 74:2019
Hellenic Train	✓							UNI EN 13816:2002
Netinera	✓							
Grandi Stazioni Rail		✓						

*From mid-2025, FS Logistix

THE GREEN HEART OF THE ORGANISATION

Environmental Management Systems (EMS) are the organisational architecture through which FS Group turns its environmental policy into concrete and measurable actions. Certified according to Standard ISO 14001:2015, these systems allow for a systematic identification, monitoring and management of environmental impacts related to the activities and services provided. EMS implementation actively involves the entire organisation through:

- A clear identification of roles and responsibilities at all company levels
- Increased environmental awareness of employees through continuous training
- Improved technical and management skills
- Personnel motivation in contributing to corporate and Group environmental goals

How the Environmental Management System works in FS Group

Environmental Management Systems (EMS) are the organisational architecture through which FS Group turns its Environmental Policy into concrete and measurable actions. Certified according to Standard ISO 14001:2015, these systems allow for a systematic identification, monitoring and management of environmental impacts related to the activities and services provided.

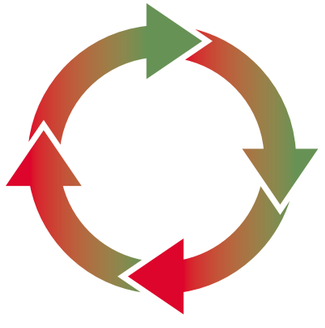
THE ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

IDENTIFICATION AND MONITORING

- Environmental impact related to the activities and services provided
- Environmental risks and opportunities for each Group company

CONTINUOUS IMPROVEMENT

- Environmental performance assessed through measurable targets
- System effectiveness verified through audits and regular checks
- Ensured transparency towards all stakeholders



SYSTEMATIC MANAGEMENT

- Corporate and Group environmental performance
- Regulatory compliance and fulfilment of environmental requirements
- Mitigation of identified environmental risks

ACTIVE INVOLVEMENT

- Clear identification of key roles and responsibilities
- Enhancing employees' skills and awareness
- Motivating staff to achieve sustainability goals

The benefits of an environmental and integrated management system

The widespread dissemination of certified environmental management systems testifies to the cross-cutting commitment to environmental excellence. In FS Group, such systems are often used alongside other management tools (Quality ISO 9001, Safety ISO 45001...) in a full-round approach that optimises resources and processes and reduces the company's overall risks.
The adoption of an integrated management system multiplies the benefits to the organisation:

- **Operational efficiency**
  Integrating different systems eliminates the risk for duplication and overlaps, optimising the use of resources and reducing management costs. A single document system serves multiple purposes, simplifying the operational life of companies.

- **Integrated risk management**
  A holistic approach identifies risks and helps manage them across the board, considering the interconnections between environmental, quality and safety aspects. This preventive approach significantly reduces the likelihood of accidents and non-compliances.

- **Accelerated continuous improvement**
  A synergy between different systems boosts the improvement process, and an improved environmental management often results in greater safety for workers and increased quality of services provided.

- **Enhanced regulatory compliance**
  An integrated system facilitates simultaneous compliance with different yet often interconnected regulatory requirements, reducing the risk of sanctions and improving relations with supervisory authorities.

- **Unified corporate culture**
  An integrated system promotes a unified vision of sustainability, where environment, quality and safety are not watertight compartments, but rather complementary sides of a single corporate strategy.

TRANSPARENCY, FAIRNESS AND TRACEABILITY OF THE ENVIRONMENTAL PERFORMANCE

Over time, FS Group has built a portfolio of certifications, declarations and statements embracing specific standards for measuring and controlling environmental performance.

FS Group follows a path of concrete and measurable commitment to environmental excellence, where every certification obtained paves the way for a sustainable future Italian and European mobility.

ISO Certifications

ISO 14001:2015 - Environmental management systems
- Implemented by FS Italiane Group's main companies

The EMS is helpful in managing environmental aspects in a systemic way, monitoring performances over time, assessing risks and opportunities, and ensuring compliance with the relevant regulatory framework.

ISO 14064-1:2019 - Inventory of GHG emissions
- Validation of Group data and emissions
- Coverage: 100% of significant Scope 1, 2 and 3 emissions
- Level of assurance: reasonable (as high as possible)

The Group obtained certification for the 2024 inventory, confirming the robustness of its emission calculation method, and transparency in carbon footprint reporting.

ISO 14083:2023 - Quantification and reporting of GHG emissions in the transportation sector
- Validation of Group transport chain data and emissions
- Standardised method for calculating emissions along the entire transport chain
- Certification obtained in 2024 to enhance transparency in emissions reporting

ISO 14067:2018 - Product Carbon Footprint
- Certified company: Mercitalia Logistics*
- Calculation of the carbon footprint for logistics services offered

*From mid-2025, FS Logistix

CDP and SBTi

Carbon Disclosure Project (CDP) - Climate Change and Water Security
- Score: A- (Leadership level)
- Positioning above the European, global and sector average
- Recognition of climate change management and water security best practices
- Over 23,000 companies evaluated worldwide

Carbon Disclosure Project (CDP) Supplier Engagement
- Score: A- (Leadership level)

Science Based Targets initiative (SBTi)
- Mid-and long-term decarbonisation targets validated in 2024
- Targets in line with climate science to limit global warming to 1.5°C
- Targets by 2030: -50% Scope 1 and 2 emissions; -30% Scope 3 emissions compared to 2019
- Targets by 2040: net zero emissions

The value of certifications for stakeholders

The certifications obtained by FS Group are concrete tools of transparency and accountability that generate shared value. This approach guarantees:
- Maximum transparency towards all stakeholders through verified data certified by accredited third parties
- Continuous improvement of the Group and its subsidiaries' sustainability performance
- Creation of shared value for the company and its stakeholders
- Verified regulatory compliance and appropriate management of environmental risks

The solidity of this path is proven by the CDP's international recognition, which confirmed FS Group position in the Leadership bracket (score A-), placing it above the European, global and sector average for climate change management.

METHODOLOGY NOTE, SOURCES AND REFERENCE STANDARDS

Reporting criteria and scope

FS Group's environmental reporting follows a strict and transparent methodological approach, in line with the highest international standards. Starting in 2024, the Group adopted the **European Sustainability Reporting Standard (ESRS)**, which is the new framework for sustainability reporting in the European Union.

The reporting process is carried out by the Parent Company on cross-cutting issues, and all companies included in the full consolidation scope, according to the Group's Annual Financial Report. This approach ensures complete and consistent reporting between the different aspects of corporate reporting, by providing environmental information fully integrated into the overall corporate communication.

Calculation methods and technical standards

The accuracy of environmental information is guaranteed by the adoption of established and internationally recognised calculation methods. Concerning the GHG emissions inventory, the Group follows the guidelines of the **GHG Protocol Corporate Accounting and Reporting Standard**, while the inventory quality certification follows Standard UNI EN ISO 14064-1:2018.

Another peculiar element of the Group's methodological approach concerns the temporal nature of the emission factors used: in order to ensure maximum accuracy, year N-2 factors are used with respect to the reporting year, thus basing calculations on the most recent data available in the literature. The main sources include recognised databases such as the **Ecoinvent Database**, **DEFRA UK factors** for standardised conversions, **ISPRA publications** for the Italian national context, and EU **JRC reports** for Well-To-Wheels analyses.

Control and data collection system

The collection and validation of environmental data is carried out through a **dedicated IT platform** involving all the Group companies included in the reference scope, across all the necessary organisational levels. This digitised system ensures traceability, timeliness and reliability of information - fundamental elements for the external certification process.

The internal control model involves multiple players participating in the reporting process, thus ensuring accurate, complete, consistent and timely sustainability data to all stakeholders.

Time horizons and transitional provisions

When assessing environmental impacts, risks and opportunities, the Group adopts the **time horizons** defined by the **ESRS**: short term up to 1 year, medium term between 2 and 5 years, long term beyond 5 years. This time frame, aligned with the Group's industrial planning cycles, allows environmental considerations to be fully integrated into strategic and operational decision-making processes.

In the first year of implementation of the ESRS, the Group resorted to transitional provisions of the regulation, to focus its efforts on the robust implementation of the new reporting system, and lay a solid foundation for future years.

External audits and process certification

The reliability of environmental information is further enhanced by verifications conducted by independent, accredited third parties. The **ISO 14064 and ISO 14083 certifications** obtained by the Group attest to the data quality and robustness of the entire process of environmental information collection, processing and reporting. The reasonable assurance level obtained for the emissions inventory represents the **highest degree of reliability expected by international standards**, and attests to the excellence of the system implemented.

GLOSSARY

Water-stressed areas

In these territories the demand for water significantly exceeds the availability of resources, causing a critical imbalance between water supply and demand.

Carbon Disclosure Project (CDP)

The CDP is a non-profit organisation that operates one of the leading internationally recognised environmental reporting platforms, and drives companies and governments to reduce their greenhouse gas emissions, safeguard their water resources, and protect forests.

Decarbonisation

It refers to the process of reducing the carbon-hydrogen ratio in energy sources, in order to decrease the amount of carbon dioxide (CO_2) in the atmosphere. Decarbonisation means the implementation of policies to reduce CO_2 emissions (e.g. choosing to use energy from renewable sources), or to convert emission-generating activities into zero-emission or lower-emission activities.

Net zero carbon emissions

It indicates the balance between the amount of greenhouse gases (GHG) produced and the amount removed from the atmosphere, achieved through the combination of emission reduction and emission removal. It is not synonymous with carbon neutrality, and it refers to the ability of achieving zero carbon emissions by a specified date.

Guarantee of Origin (GO)

The (digital) certification attesting to the renewable origin of the sources used in IGO-qualified plants. In accordance with Directive 2009/28/EC, for each MWh of renewable electricity fed into the grid by IGO-qualified plants, the GSE issues a GO title.

GHG Protocol

The GHG Protocol is a tool established in the 1990s by the WRI (World Resources Institute) and the WBCSD (World Business Council for Sustainable Development) to measure and report on greenhouse gas emissions produced by companies, from all countries and across all sectors. It allows for the measurement of all greenhouse gas emissions.

Intergovernmental Panel on Climate Change (IPCC)

The leading international body for the assessment of climate change.

Shared and soft mobility

It refers to the offer of means of transport and travel with a lower impact in terms of size, speed and environmental performance, calculated as CO_2 emissions, such as bikes, electric-powered vehicles, and public/shared transportation.

Modal shift

It refers to the modal shift from road to more sustainable modes of transport. It is among the EU's climate change targets, because shifting as much transport as possible to low-impact solutions - such as trains and vehicles using renewable energy - means having a positive impact on the amount of climate-changing emissions.

Carbon neutrality

The achievement of the balance between carbon emissions and their absorption.

It means that every tonne of CO_2 produced by human activity must be offset by the absorption of an equal amount of carbon.

Water withdrawal

Sum of all water withdrawn from surface water, groundwater, seawater, or third parties for any use during the reporting period. This is also defined in the CSRD as the sum of all water entering the perimeter of the enterprise, from all sources and for any use, during the reporting period.

Water drainage

Sum of effluent and other water leaving the organisation's premises and released into surface water, groundwater or to third parties during the reporting period.

Science Based Targets initiative (SBTi)

A joint initiative by the Carbon Disclosure Project (CDP), the UN Global Compact (UNGC), the World Resources Institute (WRI) and the World Wide Fund for Nature (WWF) that develops scientific methods and criteria and guides an action plan for climate change mitigation in the private sector. Targets are set based on Greenhouse Gas Protocol standards.

European taxonomy

The European Taxonomy is a classification of the investments considered environmentally sustainable in Europe.

Ecological transition

It is the transition from a resource-intensive and unsustainable (goods or service) production system, to a model focused on management choices characterised by environmental, social and economic sustainability.

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