



Second Ferrovie dello Stato Italiane Green Bond Framework

June 2019

INTRODUCTION

FS ITALIANE GROUP

Ferrovie dello Stato Italiane S.p.A. (Ferrovie, FS or the company) is an Italian state-owned company controlling several companies in the industrial sectors of transport, infrastructure, real estate, and other services.

Ferrovie is the holding company of the Italian railway group (FS Group), which is the main provider of transport services in Italy by rail and bus both passenger and freight.

As **one of the largest industrial groups in the country**, it manages rail and road networks and transport services, contributing to develop integrated mobility and logistics in Italy and abroad. The Group's transport system carries approximately 750 million rail passengers, 300 million passengers on the road per year and 50 million tons of freight a year on a network of over 24,500 km of railway lines. Of these, around 1,400 km are high speed services¹.

Ferrovie's main operating subsidiaries are:

- **Trenitalia** is the incumbent railway passenger transport operator for national and regional services in Italy and provides services abroad mainly in UK and France.
- **Rete Ferroviaria Italiana** is the railway infrastructure manager and owner of the Italian national rail network, operating via a 60 years concession started in 2000.
- **ANAS** is the road infrastructure manager and owner of more than 29,000 km of roads, operating via a 30 years concession started in 2002.
- **Busitalia Sita Nord** provides bus transport, both urban and suburban in Italy and in Netherlands.
- **Mercitalia Hub companies** which provide integrated freight transportation and logistics services to several industries and clients both in Italy and abroad.
- **Italferr**, which is engineering, focus, in Italy and internationally, on large-scale infrastructure projects in both the conventional and high-speed rail sectors, metropolitan and road transport, ports and station design and engineering.
- Other companies involved in infrastructure engineering, real estate and commercial activities.

¹ Source: FS Group website

Since 2011 FS has expanded its business abroad through the acquisition of foreign transport companies: **Netinera** in Germany, **Trenitalia c2c** in UK, **Qbuzz** in Netherlands, **Thello** in France, **Trainose** in Greece.

Furthermore, FS acquired 36.7% stake in **M5 SpA** - the concessionaire of Milan Metro Line 5, marking another step towards the creation of an integrated infrastructure and service system aiming at improving public transport in large urban areas.

The Group's new vision in the new mobility contest

Through its 2019-2023 Industrial Plan, Ferrovie has renewed and strengthened its ambition to develop sustainable transport services that can create value for the community in a lasting way, based on the principle of intermodality.

Ferrovie's new strategy focuses on the people's, travellers' and employees' needs, gathering the legacy of a decade of HS services performance and carrying on the integration of different modes of transport started in the last years.

The aim is to transform collective mobility in Italy, improving significantly our services, with a strong leap in the quality and customisation of the offer, especially in regional and local transport.

Estimated growth per year is an additional 90 million passengers and, as a result, 600 million kilograms less of CO2 and 400 thousand less cars on the roads.

The aim of the new FS strategy is "*Focus on people's needs via quality services*" and it will be pursued through the following actions:

- **boosting investment to improve service quality:** the planned investments will focus on *i)* infrastructure (both railway and road) with the acceleration of 1,600 RFI and Anas worksites; *ii)* the enhancement of the fleet with more than two thousand new vehicles: trains, buses, freight locomotives and wagons. The majority of the new vehicles will be dedicated to local transport, with 600 new regional trains, frontloading the delivery of 239 trains to 2023, and 1,421 buses, of which more than 500 have zero/low emissions (electric/hybrid/methane); 14 new Frecciarossa 1000 to boost high-speed connections; 714 wagons and 100 new-generation electric locomotives will contribute to increasing the modal share in freight transport; *iii)* underground railways; *iv)* the real estate sector. Moreover, investments in technology and digitisation will have an important role across all sectors;
- **a customer oriented approach with the client at the centre of the strategy, in regional as well as in the High Speed services:** FS main focal points are rail passengers and, above all, commuters. FS will continue to work intensively to achieve ever higher standards of safety, quality and efficiency in regional and local rail transport. A central objective of the Plan is to increase significantly punctuality rates with interventions both in infrastructure and transport sector. The ERTMS (European Rail Traffic Management System) technological system is crucial: already installed on HS/HC lines, it will be progressively extended to the traditional network, increasing track capacity and reducing congestion on the lines;
- **integrated mobility and intermodality:** the collaboration between all of the operators in the transport sector certainly makes travel experiences more fluid and streamlined, improving regional and metropolitan transport services. Collaborating with road transport, to build a balance in which each mode of transport can enhance its specific purpose. Investing in modal

hubs, further integrating with ports and inland terminals, to offer an effective, reliable, convenient and sustainable service, also to strengthen FS' freight and logistics service and through valorization of FS real estate assets;

- **sustainability:** new, more comfortable and more energy efficient and technologically-advanced trains, 40% of the new buses fleet with zero/low emissions, modern stations that are increasingly integrated into the metropolitan areas, and rail/road integration. The principles of ethics and sustainability are at the heart of FS strategic decisions;
- **digitalisation:** is essential to meet demand, in an increasingly more widespread and efficient manner, and to accompany passengers throughout their entire travel experiences, providing them with more assistance and more effective and timely information. The aim is to realise optimised industrial processes with a reduction in time and cost, along with predictive maintenance on trains and infrastructure, punctuality, regularity and safety; in this respect, it is fundamental to increase the competitiveness of the national railway infrastructure to promote and favour railway services, also exporting FS best practices and know-how at international level.

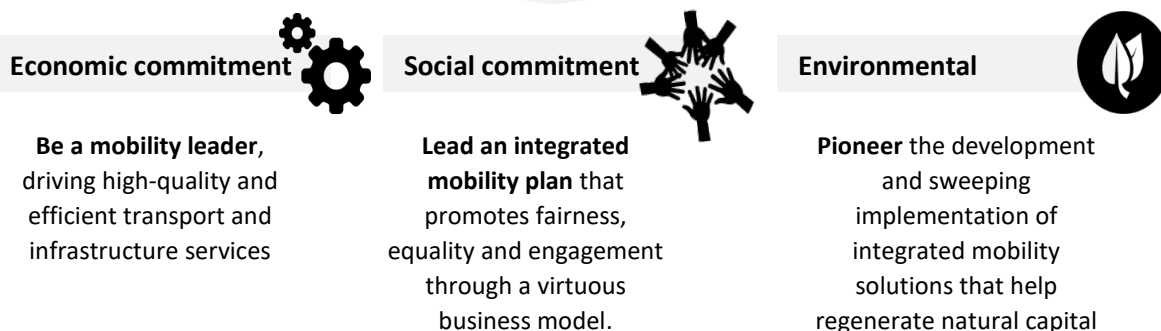


Overall, our goal is to provide integrated and sustainable mobility services and logistics, making use of transport infrastructure in synergy, thereby creating value in Italy and abroad.

FS Sustainability Commitment

FS Group is aware that it can significantly contribute to improving the wellbeing of millions of people - directly and indirectly - by helping develop mobility and logistics systems in the countries where it operates. This is why the Group's business strategy integrates social and environmental sustainability principles as a path paved by the Group's senior management and leading to a sustainable, inclusive future to be built alongside stakeholders.

VISION: Be a business that is part of the economic community and will create an offer of safe, **integrated and sustainable** mobility and logistics services, using transport infrastructures in synergy with other operators and creating value in Italy and abroad



Our approach to sustainability results into a continuous compliance with high international standards with explicit commitments declared in the Group's policies and in the Code of Ethics.

FS Group is also a member of the UIC (Union internationale des chemins de fer), which promotes the railway sector around the world as a solution to the challenges of mobility within a sustainable development framework. The Group signed the "UIC declaration on Sustainable Mobility and Transport", formalising its commitment to responsible practices in terms of human rights, labour conditions, the environment and anti-corruption, in line with the ten principles of the UN Global Compact subscribed in 2017.

FS Group also supports the **17 Sustainable Development Goals** launched on September 2015 by the United Nations, so as to promote a common agenda on development until 2030.

Specifically, FS Italiane Group aims to achieve the following goals in the context of the UN 2030 Agenda for sound, sustainable development:



Moreover, in 2016 FS established a **Group Sustainability Committee**, an advisory board made of senior managers from the main Group companies, accountable for the integration of social and

environmental aspects into economic-financial strategies, the promotion of the values and principles of sustainable development and the fulfilment of stakeholders' needs and expectations.

In 2018, the Sustainability Committee undertook a collaborative process with stakeholders to outline the company's long-term goals:

1. sustainable mobility

1.1 passenger - 5% modal shift from private car to public and shared mobility, within 2030 (baseline 2015)

1.2 freight – 50% freight rail transport and 50% freight transport services by road, within 2050

2. safety – best in class in Europe and “zero fatalities” within 2050

3. energy and emissions – carbon neutral within 2050

In April 2019 the company's Board of Directors approved the **Group Sustainability Policy** that is based on the following principles: creating shared value, community and stakeholder engagement, safety for travellers and employees, service quality, employee value, efficient use of resources and environmental protection, human rights.

It was also approved the **new Sustainability Governance Model**, which aims to promote the integration of sustainability in the Group's business. This model defines the governance and procedures through which Ferrovie intends to guarantee the integrated supervision of its three sustainability goals.

Since 2009, Ferrovie has been publishing an annual Sustainability Report with the aim of illustrating our commitment to this important issue.

In addition, in 2017, Ferrovie drew up the first Consolidated Non-Financial Statement (DNF), pursuant to Italian Legislative Decree 254/2016², published in the Annual Financial Report.

The Sustainability Report has been prepared in accordance with the “GRI Sustainability Reporting Standards” guidelines issued by the Global Reporting Initiative (GRI) in 2016, using the comprehensive reporting option. The report covers the economic, social and environmental activities deemed to be the most significant for the Group and its stakeholders. The Report is also subject, on voluntary basis, to a limited assurance by KPMG S.p.A..

The FS Risk Management Model has been updated in order to include also the sustainability risks (environmental risk, social risks and risks related to the protection of human rights, human resources management risks, corruption risks, supply risks).

The FS Group's relationships with suppliers (including external contractors, consultants, intermediaries, sub-contractors, sub-suppliers and, in general, all parties in the supply chain) and business partners are based on upholding the principles of honesty, integrity, impartiality and sustainability.

² Legislative decree no. 254 was promulgated on 30 December 2016, implementing Directive 2014/95/EU and amending Directive 2013/34/EU with respect to the disclosure of non-financial information in the financial statements by certain large companies and groups.

In 2018, FS Group continued to pursue its commitment to improving supply chain management by administrating a **self-assessment questionnaire** with more than 40 questions in four sections (human rights, the environment, society and health and safety) to the Group companies' strategic suppliers, performing audits and participating in round tables promoted by **Railsponsible**, an initiative that brings together major railway companies to promote sustainable procurement by sharing best practices and virtuous processes.

Furthermore, in the second half of 2017, the Group has launched the **"Supply Chain Sustainable Management"** project with the aim to include new sustainability criteria for supplier qualification.

In 2018, the Group defined a **model to estimate the direct and indirect social, environmental and economic impacts of the Group's investments**.

In January 2019 FS, together with other sixteen European corporates, set up the **Corporate Forum on Sustainable Finance**. The Forum, designed as a permanent network for exchanging views and ideas, brings together dynamic "Green Issuers" committed to upholding and developing sustainable finance as a critical tool to fight climate change and to foster a more sustainable and responsible society.

FS Environmental Policy

Since 2010, FS has formalised its active role in promoting and coordinating consistent management of environmental issues by maintaining a governance model for the Group companies' environmental management systems.

The FS Group has always been committed to improving its environmental performance. The aim is to meet the need to move people and goods by putting forward a transport system which is focused on the railway and integrated by the other players in the collective mobility and sustainability sectors.

The Group's environmental management model inspires and coordinates the environmental path taken, giving short and long-term direction and principles, encouraging the implementation of sustainable strategies and ones that protect the environment.

Because of a constant process of action, monitoring and assessment, the companies translate the Group's environmental strategy into autonomous approaches to improving their performance, maximising the environmental advantages related to their activities and especially insisting on the rational use of resources, on the reduction of CO2 emissions and other polluting substances and on the reduction of the ecological footprint.

In managing its activities, the Group is committed to:

- using natural resources in a rational way;
- improving energy efficiency and promoting the use of renewable energy sources;
- reducing emissions of greenhouse gases;
- safeguarding the territory and biodiversity;
- reducing environmental consequences, such as noise emissions, electromagnetic emissions and atmospheric emissions in the ground and water;
- implementing an Environmental Management System for the entire organisation and improving its performance over time;
- contributing to enhance the environmental awareness of the major stakeholders: customers, personnel, suppliers, competitors;
- complying with and - where possible - improving on the regulations and legal provisions at a European, national and regional level.

The skills and experience gained during the design of sustainable works on **infrastructure** have led to the identification of the **Envision™ protocol as a useful tool for certifying the Group's commitment to finding more effective design solutions in terms of sustainability.**

Rail transport is the greenest solution: it produces about 76% less CO₂ instead travelling by plane and about 60% less than by car³.

However, the Group's commitment is not limited to the trains. There are many green mobility services achieved in partnership with other operators such as: bike sharing companies, car sharing companies, taxi companies, etc. Meanwhile, FS is promoting the development of a national greenway system dedicated to light mobility on railways no longer in use.

More info about FS Group (business description, financial profile, strategy and policies) are available on the following links:

<https://www.fsitaliane.it/content/fsitaliane/en/investor-relations.html>

<https://www.fsitaliane.it/content/fsitaliane/en/sustainability.html>

1. Rationale of Ferrovie Green Bond Issue

Ferrovie strongly believes that rail and public transport are critical for sustainable development and global efforts to combat climate change, by facilitating the modal shift away from cars and trucks into less carbon intensive modes of transport.

As part of its broad commitment to sustainability, Ferrovie decided to create a Green Bond Framework which is in accordance with the Green Bond Principles 2018⁴, and under which Ferrovie can issue Green Bond(s) to finance projects with a positive impact in terms of environmental and social sustainability. For each Green Bond issued, Ferrovie asserts that it will adopt (i) Use of Proceeds (ii) Project Evaluation and Selection (iii) Management of Proceeds and (iv) Reporting, as set out in this Framework.

2. Use of Proceeds

An amount equal to the net proceeds will be allocated for investments in one or more of the "**Eligible Green Projects**".

"Eligible Green Projects" include new and on-going projects, which may have a disbursement within the past 3 years in which the Notes are issued until the maturity of the Notes.

"Eligible Green Projects" means projects with a positive impact in terms of environmental and social sustainability, in accordance with the broad categorisation of eligibility for green projects set out by ICMA.

³ Source: <http://www.ecopassenger.org>, using the RM-MI route as calculation baseline.




⁴ <https://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

Specifically, the proceeds from any Ferrovie Green Bond will be applied to finance or refinance the following Eligible Green Projects:

Project Category	Eligible Green Projects	Alignment with the high level environmental objectives
<p>Clean Transportation</p> <ul style="list-style-type: none"> • Investments in public passengers transport rolling stock renewal 	<ul style="list-style-type: none"> ○ New Electric Multiple Unit trains “Pop” and “Rock” for regional passenger transport, which ensure energy efficiency improvements, carbon emissions reduction and modal shift to rail in the local public transport, among other improvements related to air quality and comfort for passengers ○ New electric High speed Trains “ETR 1000”, which ensure energy efficiency improvements, carbon emissions reduction and modal shift to rail in the long distance transport market, among other improvements related to air quality and comfort for passengers 	<ul style="list-style-type: none"> • Climate change mitigation • Pollution prevention and control • Energy Efficiency
<p>Clean Transportation</p> <ul style="list-style-type: none"> • Investments in freight transport rolling stock renewal⁵ 	<ul style="list-style-type: none"> ○ New electric traction locomotives, which ensure energy efficiency improvements, carbon emissions reduction and modal shift to rail in the freight transportation ○ New wagons for coils transportation which ensure energy efficiency improvements, carbon emissions reduction, modal shift to rail in the freight transportation, accident prevention solutions for coil fastening 	<ul style="list-style-type: none"> • Climate change mitigation • Pollution prevention and control • Energy Efficiency

⁵ Aligned with criterion 5 of Transport criteria - Low Carbon Land Transport and the Climate Bonds Standard “Infrastructure and rolling stock for railway lines that are built with the over-riding objective of transporting fossil fuels do not qualify under the standard. This will be determined by: (a) The primary purpose of the lines being clearly described as fossil fuel freight by authoritative government or media sources; or, in the absence of this: (b) No more than 50% on the share of fossil fuel freight t-km transported by the line”. In 2018 Mercitalia Rail transported only around 0.0001% of fossil fuel as percentage on its total tons transported.

Alignment of Use of Proceeds with the UN Sustainable Development Goals and Targets

Project Category	Alignment with the UN SDG targets ⁶	
<p><u>Clean Transportation</u></p>	  	<p>SDG 9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p> <p>SDG 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport</p> <p>SDG 12.2: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p> <p>SDG 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p>

Alignment of Use of Proceeds with the preliminary EU taxonomy and green bond standard

The Use of Proceeds and the Green Bond Framework are aligned with the preliminary EU taxonomy and green bond standard published by the EU commission on June 2019, which a final version in late 2019 will follow.

Ferrovie may amend this Green Bond Framework to include additional Project Categories for future issuances.

3. Process for Project Selection and Evaluation

Project selection and evaluation will be implemented by Ferrovie's internal Green Bond Working Committee, which has been established to create, review, maintain and implement Ferrovie's Green Bond Framework. This Committee consists of members of Ferrovie's Finance and Sustainability teams, as well as those of the subsidiaries involved from time to time. The Committee is chaired by Ferrovie's Head of Finance. Ferrovie's internal Green Bond Working Committee will review eligible projects to identify projects that meet the eligibility criteria described above. After approval by the Green Bond Working Committee, projects will be recorded in a Green Bond Register.

⁶ UN Sustainable Development Goals - <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

4. Management of Proceeds

Pending allocation of an amount equal to the net proceeds from the sales of the Notes to Eligible Green Projects, the proceeds from the Green Bond will be placed into Ferrovie's normal treasury accounts.

Ferrovie's Treasury will allocate, via intercompany loan, the bond proceeds from the Treasury to projects recorded in the Green Bond Register. The Register will include a full list of eligible projects (as approved in the Process for Project Selection and Evaluation section), and the amount of allocation made.

Whilst any bond proceeds remain unallocated, they will be invested in accordance with Ferrovie's liquidity management policies and guidelines in money market products, such as cash and/or cash equivalents and/or bank deposits.

5. Reporting

On an annual basis, at least until full allocation, Ferrovie will provide the following reporting on each Green Bond(s):

- Allocation reporting: detailing the bond proceeds allocation by category of Eligible Green Projects;
- Performance reporting: for each category of Eligible Green Projects Ferrovie will report on relevant impact metrics

Examples of relevant metrics could include:

Project Category	Indicative Key Performance Indicators
Passengers Transport Rolling Stock Renewal	<ul style="list-style-type: none">• Estimated energy savings (GWh saved)• Estimated total GHG emissions avoided (tCO₂ eq)
Freight Rail Transport Locomotive and wagons Renewal	<ul style="list-style-type: none">• Estimated energy savings (GWh saved)• Estimated Total GHG emissions avoided (gCO₂ tr/km)

Ferrovie's annual Green Bond reporting will be made available on its website and will be included in the Sustainability Report. After full allocation, reporting will only be issued in the event of any material changes.

6. External Reviewers

6.1 Second Party Opinion

Ferrovie has appointed Sustainalytics SARL to provide a Second Party Opinion on this updated version of its Green Bond Framework. This Second Party Opinion document will be made publicly available on Ferrovie's website.

6.2 Climate Bonds Initiative Certification

Ferrovie selected Sustainalytics to act as a verifier to obtaining a Climate Bonds Initiative Certification.

The certification will be related to the Low-Carbon Land Transport Criteria version 1.0.

6.3 Post issuance

External auditors appointed by Ferrovie will verify on an annual basis and until the full allocation of an amount equal to the net proceeds, the allocated proceeds to Eligible Green projects and the remaining balance of unallocated proceeds, within the annual report review. Auditors will also verify the compliance of the allocated proceeds with the Eligible Project categories.