S&P Global Ratings

Powered by **Shades of Green**

Second Party Opinion

EUROFIMA Green Bond Framework

May 12, 2025

Location: Switzerland	**Sector:** Financial Services

Primary contact

Anna Liubachyna
London
+44 79 71 362 293
anna.liubachyna
@spglobal.com

Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✕

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

See Alignment Assessment for more detail.

Dark green

Activities that correspond to the long-term vision of a low-carbon climate resilient future.

Our Shades of Green Analytical Approach >

Strengths

EUROFIMA expects more than 90% of its lending portfolio to finance electric railroad vehicles, which play a significant role in promoting a low-carbon future. The majority of financing (85%) will be directed toward new projects, which we understand indicates greater additionality in climate and environmental impacts, such as improved air quality and noise pollution reduction, emissions reduction, and enhanced accessibility of public transport.

Weaknesses

No weakness to report.

Areas to watch

EUROFIMA relies on borrowers' and shareholders' engagement to assess the physical climate impacts of financed activities. EUROFIMA conducts gap analysis based on the borrowers' environmental, social, and governance (ESG) disclosures and subsequently shares best practices with those borrowers who are less advanced in their climate assessments.

Shades of Green Projects Assessment Summary

EUROFIMA expects its green portfolio to include more than 90% zero-tailpipe emissions vehicles and less than 10% that use propulsion systems partly based on a diesel engine.

The issuer expects around 15% of proceeds to be allocated to refinancing projects, while the majority (about 85%) of proceeds will finance new projects.

Based on the project category's Shades of Green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in EUROFIMA's Green Bond Framework, we assess the framework Dark green.

Clean transportation	Dark green

1) Financing the purchase of newly manufactured rolling stock (equipment that has not yet been delivered to the railway operator)

2) Financing of existing rolling stock: equipment delivered to the railway operator that underwent a major upgrade

Rolling stock:

- Interurban passenger transport
- Urban passenger transport
- Freight

See Analysis Of Eligible Projects for more detail.

Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

Company Description

European Company for the Financing of Railroad Rolling Stock (EUROFIMA) is a Switzerland-based specialized supranational entity established in 1956 by an international treaty for a period of 50 years, subsequently extended by 50 years until 2056. EUROFIMA finances railway equipment, including renewing and modernizing rolling stock of railway operators (also its shareholders). As of Dec. 31, 2024, the equipment financing contracts (loan portfolio) amounted to €9.2 billion, with Switzerland, Italy, and Spain being the primary borrowers.

The shareholders of EUROFIMA include 26 national railway operators, infrastructure managers, and government departments of its contracting states. As of Dec. 31, 2024, the three largest shareholders are Deutsche Bahn AG (Germany) and Société Nationale SNCF (France), each with 22.6% of the share capital, and Ferrovie dello Stato Italiane SpA (Italy) with a 13.5% shareholding.

Material Sustainability Factors

Climate transition risk

Transport remains a major global emissions source, with automobiles, airlines, and freight contributing about a quarter of annual greenhouse gas emissions, according to the International Energy Agency (IEA). In the EU context, transport emissions increased by 26% from 1990 to 2022 in the numerous member states, with road transport being the main contributor, responsible for 73% of the sector's emissions in 2022. The EU aims to reduce 90% of transport emissions by 2050 compared with 1990 levels, as part of its goal to achieve climate neutrality by 2050. Rail is regarded as the most sustainable mode of transport, with emissions decreasing by approximately 70% between 1990 and 2022. Investing in railroad transport contributes to significant reductions in CO_2 emissions per passenger-kilometer compared with cars and planes. Rail transport is targeted for further decarbonization through electrification, renewable energy adoption, and modernization of rolling stock, as it still accounts for a small portion of total transport emissions. The EU's strategy focuses on electrification of railways and 57.4% of EU railway lines were electrified in 2022. Further, EU sustainable and smart mobility strategy aims to double high-speed passenger rail traffic in Europe by 2030 and triple it by 2050. For rail freight transport, the strategy targets a 50% increase by 2030 and a doubling by 2050 compared with 2015.

Physical climate risk

Physical climate risks will affect many economic activities as climate change will increase the frequency and severity of extreme weather events. These include acute events like floods, storms, heatwaves, and landslides, which can damage rail infrastructure and rolling stock, leading to costly repairs, service disruptions, and reduced asset lifespans. Indirect impacts include increased maintenance costs and supply chain disruptions affecting critical infrastructure. European countries, particularly in Southern regions such as Italy and Spain, are vulnerable to extreme weather events such as heatwaves, floods, and storms. Implementing climate-resilient measures such as heat-resistant rails, elevated tracks in flood-prone areas, and advanced monitoring technologies for early detection of weather-related hazards will ensure continued safe and efficient rail operations amid evolving climate challenges.

Pollution

Railroad vehicles, particularly diesel-powered locomotives, contribute to air and noise pollution by emitting pollutants like nitrogen oxides and particulate matter. While rail is generally considered the greenest and safest mode of land transport, the investments in conventional diesel-powered trains or infrastructure can contributes to air and noise pollution. The revised EU Ambient Air Quality Directive, enforced in 2024, aims to standardize methods for monitoring and assessing air quality, including emerging pollutants, and establish objectives to protect health and the environment. It supports air quality assessment with a network of over 4,000 monitoring stations and enhanced modeling. The investments in quieter trains and upgraded infrastructure can reduce noise pollution and improve quality of life for communities near rail corridors. The EU Environmental Noise Directive requires member states to develop noise maps and noise management action plans to mitigate noise impacts near rail corridors.

Access and affordability

Financing the expansion and modernization of rail networks and rolling stock results in improved service coverage, frequency, and reliability, which in turn broadens access for passengers and freight users. Accessibility improvements, such as step-free boarding, wider vestibules, and dedicated spaces for wheelchairs and mobility devices, ensure usability for all, including those with special needs. On the affordability front, rail transit systems help reduce household transportation costs by providing an alternative to car ownership and lowering expenses related to congestion and parking. However, in terms of electrical railroad transport, the high costs associated with the supporting infrastructure may affect railway operators, potentially leading to higher fares for passengers and reducing overall affordability.

Issuer And Context Analysis

The clean transportation project category addresses the climate transition risk, a key material factor for EUROFIMA. The projects aim at facilitating the transition of the road and rail rolling stock to zero tailpipe emissions and increasing accessibility of the network. We consider these activities will significantly reduce emissions and contribute to the climate change mitigation objective. Given the transportation sector's vulnerability to climate change impacts, managing physical climate risks is a crucial aspect in our analysis.

EUROFIMA's strategy is centered around promoting sustainable transportation modes particularly by financing electric rolling stock. The entity reports on Scope 1, 2, and 3 emissions in accordance with the GHG Protocol accounting standards, with the majority of emissions (approximately 99%) stemming from Scope 3 related to financing of rolling stock. To address these emissions, EUROFIMA promotes clean transportation initiatives by financing electric rolling stock projects that enhance low-carbon passenger and freight rail services and contribute to greenhouse gas emission reductions and air pollutants. Furthermore, its lending price policy offers a discount ("greenium") of 2 basis points for the zero-emission rolling stock, while diesel-powered vehicles incur additional charges of 2 basis points. We also view favorably that it evaluates borrowers based on six EU environmental objectives along with 27 core environmental indicators including greenhouse gas intensity, renewable energy use, and share of clean vehicles deployed, through its ESG assessment framework. Additionally, it also assesses suppliers' environmental performance.

EUROFIMA's lending portfolio mostly comprises electric vehicles, with a small portion (less than 5%) of diesel rolling stock contributing to noise and air pollution. Through its ESG assessment framework, EUROFIMA identifies the gaps in the sustainability reporting of its shareholders. The identified gaps serve as a foundation for developing targeted engagement with shareholders to address specific areas of improvement, thereby fostering enhanced sustainability practices and reporting standards. The ESG assessment framework uses the data from key shareholders (borrowers) to assess their environmental performance including air and noise pollution. For instance, Swiss Federal Railways (Switzerland), a key borrower, installs particle filters in the diesel locomotives to reduce harmful air emissions. It also aims to achieve a renewable-powered fleet by 2040, while pursuing noise reduction through fleet upgrades and infrastructure improvements.

EUROFIMA relies on physical risk assessments conducted by borrowers for its financed activities. Some shareholders, such as Renfe (Spain), Ferrovie dello Stato Italiane (Italy), and Société Nationale SNCF (France), assess climate risk exposure and adaptation strategies to mitigate adverse climate impacts on rolling stock. EUROFIMA shares best practices with railway operators that are less advanced in climate risk assessments through ESG engagement.

EUROFIMA's investment strategies integrate ESG considerations for its sizable treasury and asset management portfolio. The investment decisions of EUROFIMA are governed by its ESG Investment Framework, which assesses ESG risks and opportunities for investee companies and counterparties. The framework has three pillars focusing on compliance with the United Nations Global Compact (UNGC), ESG risk assessment, and proactive engagement with investee companies on ESG topics. In 2024, EUROFIMA invested approximately 18% of its assets under management in ESG-labeled instruments.

Alignment Assessment

This section provides an analysis of the framework's alignment to Green Bond principles.

Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✕

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✓ Use of proceeds

We assess the framework's green project category as having a green shade. The issuer commits to allocating the net proceeds issued under the framework exclusively to eligible green projects. The clean transportation project category will contribute toward the climate mitigation objective.

Please refer to the Analysis Of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds.

✓ Process for project evaluation and selection

The framework outlines the process to select and approve eligible projects and assets. EUROFIMA's sustainability committee is responsible for evaluating and selecting eligible projects in line with the criteria described in the framework after the preliminary ESG screening of the projects. These projects are then presented to the management committee for final approval. EUROFIMA also assesses a project's financing eligibility based on alignment with green selection criteria integrating usage, age (new or upgraded), and power source of the projects. EUROFIMA ensures the borrowers have appropriate social and environmental risk management through its systematic screening that includes gap analysis through Do No Significant Harm (DNSH) and minimum safeguard requirements as outlined in the EU Taxonomy.

✓ Management of proceeds

The net proceeds will be tracked to ensure exclusive financing of eligible projects by earmarking an amount equal to the net proceeds separately within the treasury. EUROFIMA will create a pool for eligible green assets, using unique identifiers to track facility IDs linked to green bond proceeds. The tracking of proceeds is managed through internal information systems and monitored by the sustainability committee. Furthermore, if the green assets cease to fulfill eligibility criteria, or a part of a loan is repaid or redeemed, EUROFIMA commits, on a best-effort basis, to replace them with another eligible green asset by providing reasonable time for the borrowers to recover or find replacement for such assets without disrupting public transport services. Unallocated proceeds will be managed in accordance with EUROFIMA's Treasury Policy and Portfolio guidelines.

✓ Reporting

EUROFIMA commits to reporting annually on the allocation and impact of proceeds until full allocation, on its website. The allocation reporting will include a summary of assets financed per type of equipment and geography, summary of the allocation of proceeds through green bond issuance and allocation of green bond funds. It will also report on the environmental impact of the projects financed by green bonds. Among the key performance indicators are the number of clean vehicles deployed, age of rolling stock on the date of financing disbursement, annual greenhouse gas emissions reduced/avoided in tonnes of CO_2, reduction of air pollutant (CH_4, N_2O), annual greenhouse gas emissions in tonnes of CO_2 equivalent (tCO_2e), annual energy savings, estimated reduction in fuel consumption, and, if relevant, annual passenger kilometers. EUROFIMA may report on quantitative performance measures at the railway level, including the total reduction in CO_2 emissions and energy consumption, along with the overall increase in renewable energy usage.

Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the "Analytical Approach: Shades Of Green Assessments".

Overall Shades of Green assessment

Based on the project category shades of green detailed below, the expected allocation of proceeds, and consideration of environmental ambitions reflected in EUROFIMA's Green Bond Framework, we assess the framework as Dark green.

Dark green

Activities that correspond to the long-term vision of a low-carbon climate resilient future.

Our Shades of Green Analytical Approach >

Green project categories

Clean transportation

Assessment	Description
Dark green	1) Financing of purchase of newly manufactured rolling stock (equipment that has not yet been delivered to the railway operator) 2) Financing of existing rolling stock: equipment delivered to the railway operator that underwent a major upgrade Rolling stock: • Interurban passenger transport • Urban passenger transport • Freight

Analytical considerations

- Mitigating greenhouse gas emissions from transportation will be crucial to meet global decarbonization goals, as the transport sector accounts for 23% of global energy-related greenhouse gas emissions, according to the Intergovernmental Panel on Climate Change (IPCC). Fossil fuel-powered vehicles and vessels also create air pollution, such as nitrogen oxides and sulfur oxides. Increased use of public rail transport is one of the keys to decarbonizing transportation.
- EUROFIMA expects its green portfolio to include interurban and urban passenger transport and freight, more than 90% of which use electric, battery or green hydrogen propulsion systems and their combinations, i.e. having zero tailpipe emissions. The combinations of propulsion systems include battery and electric, and green hydrogen and battery. We acknowledge the significance of funding clean rail transport in Europe and its role in lowering carbon emissions from this sector. We anticipate EUROFIMA's investments in clean transportation initiatives will help decrease greenhouse gas emissions from railways across Europe, thus supporting the transition to a decarbonized economy. Therefore, we assess this type of transportation as Dark green.
- A minority of its portfolio (less than 10%) is expected to be dedicated to assets that use propulsion systems partly based on a diesel engine and therefore assessed as Light green. We expect this proportion to decrease further over

time with the improvement of railway electrification. These trains are powered by electricity and HVO or diesel fuel (bi-mode trains); electricity and battery and HVO or diesel fuel (tri-mode trains), when the catenary system is not available. The issuer classifies this type of assets as green if the following requirements are met: (i) they are equipped with an engine that has zero direct (tailpipe) CO_2 emission, when operated on a track with necessary infrastructure; (ii) they are equipped with a diesel engine that is operated only when such infrastructure is not available; (iii) the category of the diesel engine is the V stage and complies with the EU Regulation (EU) 2016/1628 of the European Parliament and of the Council.

- EUROFIMA expects no more than 5% of the entire balance sheet will be freight vehicles. It has confirmed that the financing excludes fossil fuel transportation.
- EUROFIMA screens its green bond borrowers regarding their physical climate risk exposure and climate risk assessments conducted by the borrowers. Some of its borrowers such as Renfe (Spain), Ferrovie dello Stato Italiane (Italy), and Société Nationale SNCF (France), have stronger methodologies and reporting on climate risk exposure and adaptation initiatives than others. We view positively that EUROFIMA shares best practices with railways operators who are less advanced in their climate risk assessments.
- The company conducts an additional green eligibility screening for certain fuel types and propulsion systems, i.e. green hydrogen, battery, and electric, which reaffirms our Dark green shade. For example, green hydrogen eligibility criteria include route infrastructure context (e.g. percentage of the route that is not electrified), substitutional rationale (i.e. what kind of train the hydrogen train is replacing) and operational and environmental set up (e.g. compliance with safety and environmental standards).
- EUROFIMA also conducts systematic reviews of borrowers' biodiversity policies. Currently the company is not screening its borrowers on embodied emissions but planning to do so in the future.

S&P Global Ratings' Shades of Green

Assessments	Dark green	Medium green	Light green	Yellow	Orange	Red
Description	Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
Example projects	Solar power plants	Energy efficient buildings	Hybrid road vehicles	Health care services	Conventional steel production	New oil exploration

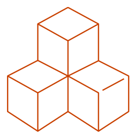
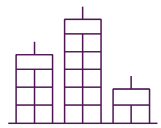
Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

Mapping To The U.N.'s Sustainable Development Goals

Where the financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not affect our alignment opinion.

This framework intends to contribute to the following SDGs:

Use of proceeds	SDGs	
Clean Transportation	 **9. Industry, innovation and infrastructure**	 **11. Sustainable cities and communities***

*The eligible project categories link to these SDGs in the ICMA mapping.

Related Research

- Analytical Approach: Second Party Opinions, March 6, 2025
- FAQ: Applying Our Integrated Analytical Approach For Second Party Opinions, March 6, 2025
- Analytical Approach: Shades Of Green Assessments, July 27, 2023
- Analytical Approach: EU Taxonomy Assessment, Oct. 31, 2024
- S&P Global Ratings ESG Materiality Maps, July 20, 2022

Analytical Contacts

Primary contact

Anna Liubachyna
London
+44 79 71 362 293
anna.liubachyna
@spglobal.com

Secondary contacts

Pierre-Brice Hellsing
Stockholm
+46 707 822 823
pierre-brice.hellsing
@spglobal.com

Tim Axtmann
Oslo
Tim.axtmann
@spglobal.com

Research contributor

Sreenidhi M K
Pune