

# EU Taxonomy Alignment

## Ferrovie dello Stato Italiane Green Bond Framework

### Evaluation Summary

Sustainalytics has assessed the Ferrovie dello Stato Italiane Green Bond Framework for alignment with the EU Taxonomy and is of the opinion that eligibility criteria in this category – which relate to passenger interurban rail transport and freight rail transport – map to two activities in the EU Taxonomy and are aligned with the applicable Technical Screening Criteria (TSC). The activities align with the Do Not Significant Harm (DNSH) criteria defined for the activities above-mentioned. Sustainalytics is also of the opinion that the activity and projects to be financed under the Framework will be carried out in alignment with the EU Taxonomy’s Minimum Safeguards.

<b>Evaluation Date</b>	December 08 , 2021
<b>Issuer Location</b>	Rome, Italy

The Framework contributes to the following SDGs:



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## Scope of Work and Limitations

Sustainalytics' Assessment reflects Sustainalytics' independent<sup>1</sup> opinion on the alignment of the Framework with the EU Taxonomy .

As part of the Assessment, Sustainalytics assessed the following:

The Framework's use of proceeds' alignment with the EU Taxonomy for sustainable activities.

As part of this engagement, Sustainalytics held conversations with various members of Ferrovie's management team to understand the planned use of proceeds of the Framework.

Ferrovie's representatives have confirmed: (1) they understand it is the sole responsibility of Ferrovie to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information; and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics' assessment on the alignment of the Ferrovie dello Stato Italiane Green Bond Framework against the EU Taxonomy and should be read in conjunction with that Framework.

Any update of the present Assessment will be conducted according to the agreed engagement conditions between Sustainalytics and Ferrovie.

Sustainalytics' Assessment, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards.

No information provided by Sustainalytics under the present Assessment shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Ferrovie has made available to Sustainalytics for the purpose of this Second-Party Opinion.

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<sup>1</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics' hallmarks is integrity, another is transparency.

## Introduction

Ferrovie dello Stato Italiane SpA (“Ferrovie”) was founded in 1905 and is based in Rome, Italy. Ferrovie is an industrial holding-company fully owned by the Ministry of Economy and Finance of Italy. The Ferrovie dello Stato Italiane Group (the “Group”), through its subsidiaries, provides passenger and cargo transportation services via rail, road and waterway, and develops, operates and maintains railway network infrastructure (including railway stations) and road network infrastructure along with several other services. The Group operates approximately 10,000 trains running every day, which serve 750 million rail passengers each year.

In 2019, Ferrovie engaged with Sustainalytics to review and assess the ESG credentials under the Ferrovie dello Stato Italiane Green Bond Framework (the “Framework”) and provide a Second-Party Opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018.<sup>2</sup> Sustainalytics reviewed the Company’s Green Financing Framework,<sup>3</sup> as well as other Company-specific documents. The Second-Party Opinion was published in November 2019 and the Framework is still applicable to this entity.<sup>4</sup>

In December 2021, Sustainalytics reviewed the activities of the Framework for their alignment with the EU Taxonomy Climate Delegated Act, published June 2021.<sup>5</sup> This assessment should be read in conjunction with the Company’s Green Bond Framework, as well as Sustainalytics’ Second-Party Opinion.

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<sup>2</sup> The Green Bond Principles 2018 are administered by the International Capital Market Association and are available at: [Green-Bonds-Principles-June-2018-270520.pdf \(icmagroup.org\)](https://www.icmagroup.org/green-bonds/principles-2018-270520.pdf)

<sup>3</sup> The Ferrovie dello Stato Italiane Green Bond Framework is available on Ferrovie dello Stato Italiane’s website at: [https://www.fsitaliane.it/content/dam/fsitaliane/Documents/investor-relations/Ferrovie\\_Green%20Bond%20Framework%20update%20-%20June%202019.pdf](https://www.fsitaliane.it/content/dam/fsitaliane/Documents/investor-relations/Ferrovie_Green%20Bond%20Framework%20update%20-%20June%202019.pdf)

<sup>4</sup> This document is available at: <https://www.fsitaliane.it/content/fsitaliane/en/investor-relations/debt-and-credit-rating/green-bond-framework.html>

<sup>5</sup> EU Taxonomy Climate Delegated Act, (2021), at: [taxonomy-regulation-delegated-act-2021-2800-annex-1\\_en.pdf \(europa.eu\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021D2800-01_1)

## Sustainalytics' Opinion

### Alignment with the EU Taxonomy's Technical Screening and Do No Significant Harm Criteria

Sustainalytics has assessed each of the Framework's eligible green use of proceeds criteria against the relevant criteria in the EU Taxonomy and determined their alignment with each of the Taxonomy's three sets of requirements. The results of this assessment are as follows:

1. Technical Screening Criteria ("TSC")
  - the two eligibility criteria in the Framework were assessed and found to be aligned with the applicable TSC of the EU Taxonomy activities "6.1. Passenger interurban rail transport" and "6.2. Freight rail transport".
2. Do No Significant Harm ("DNSH") Criteria
  - The two eligibility criteria assessed are aligned with the applicable DNSH criteria.
  - The two criteria assessed have a total of six individual DNSH criteria (across all environmental objectives) applicable to them and are aligned with all six criteria.
3. Minimum Safeguards
  - Based on a consideration of the policies and management systems applicable to Framework criteria, as well as the regulatory context in which financing will occur, Sustainalytics is of the opinion that the EU Taxonomy's Minimum Safeguards requirements will be met.
  - For Sustainalytics' assessment of alignment with the Minimum Safeguards see below.

**Table 1** provides an overview of the alignment of Ferrovie's Framework with the TSC and DNSH criteria for the corresponding NACE activities in the EU Taxonomy

*Table 1: Summary of Alignment of Framework Criteria with the EU Taxonomy*

Activity	Alignment with Taxonomy Criteria		Alignment per EU Environmental Objective					
	TSC	DNSH	Mitigation	Adaptation	Water	Circular Economy	Pollution	Eco-systems
Passenger interurban rail transport	■	■	■	■	-	■	■	-
Freight Rail transport	■	■	■	■	-	■	■	-

Legend	
Aligned	■
Partially aligned	▣
Not aligned	☒
No applicable DNSH criteria for this Objective and/or Activity	-
Grey shading indicates the primary EU Environmental Objective	

## Alignment with the EU Taxonomy's Minimum Safeguards

The EU Taxonomy recommends that companies have policies aligned with international and regional guidelines and regulations pertaining to human rights, labour rights, and combating bribery and corruption. Specifically, activities should be carried out in alignment with the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. Additionally, companies should be in compliance with the International Labour Organisation's (ILO) declaration on Fundamental Rights and Principles at Work.

### Human Rights and Labour Rights

Ferrovie has implemented the following policies and procedures aimed at ensuring human and labour rights:

- Ferrovie adheres to the group-level code of ethics that align with the UN Universal Declaration of Human Rights and the conventions of the International Labour Organization. Ferrovie's code of ethics and principles are aimed at promoting respect for human rights and apply to all employees, subsidiaries and suppliers.
- Ferrovie became a signatory to the UN Global Compact in 2017, and commits to contributing to economic, social and environmental progress in the communities where it operates. Additionally, the Group also participates in the "Railponsible" initiative for sustainable procurement guidelines which includes complying with national and international human rights regulations. Furthermore, minimum wage rules apply to both fixed-term and open-ended contract employees and uphold the national agreement as well as the Group's Code of Conduct.
- Ferrovie adheres to national labour agreements like Logistics, Freight Transport and Shipping agreement, the National Labour Agreement for the tertiary sector, and the railway, tram and shipping workers' (Mobility-LPT) contract.

Sustainalytics recognizes that Ferrovie's subsidiaries have been involved in incidents with respect to the safety of the Group's services related to the derailment of trains operated by the Group's subsidiaries dating back to 2009 and up to 2020. In this respect Ferrovie has developed policies to strengthen its Group-wide risk mitigation systems and implemented several initiatives, including the adoption of certified maintenance processes, the renewal and maintenance of its fleet to further enhance safety and investment in non-routine maintenance, security and technologies. As of 2020, the Italian rail network ranks seventh among European Economic Area countries in terms of safety performance measured as significant accidents per million train-km. Sustainalytics has assessed the measures taken by Ferrovie to strengthen its group-wide risk management systems and policies pertaining to the safety of its operations, and is of the opinion that these measures provide an adequate minimum safeguard in this area.

### Anti-bribery and anti-corruption

Ferrovie has implemented the following policies and procedures aimed at ensuring anti-bribery and anti-corruption:

- Ferrovie's Code of Conduct outlines the Group's governance principles and overall ethics framework. It is a signatory to the UN Global Compact and aims to adhere to the principles for prevention of corruption. The Group has also established an Anti-Corruption Framework, which outlines Ferrovie's implementation of anti-corruption guidelines. Ferrovie's Anti-bribery and Corruption (ABC) management system covers corruption including offering and accepting bribes either directly or indirectly by individuals or institutions, identifying the risk arising from such activities, risk prevention, and training and communication. Additionally, the Group also has a whistleblower policy, wherein the whistleblower receives full protection as dictated by law. Ferrovie carries out annual trainings for all its employees to strengthen its approach and to increase awareness in the areas of anti-corruption and anti-money laundering.

Sustainalytics is not aware of any involvement in any relevant controversies which would suggest that the above policies are not adequate in addressing key risks.

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Ferrovie's policies, guidelines and commitments are sufficient to demonstrate that the activities and projects to be financed under the Framework will be carried out in alignment with the EU Taxonomy's Minimum Safeguards.

## Conclusion

Sustainalytics has assessed the Ferrovie dello Stato Italiane Green Bond Framework for alignment with the EU Taxonomy. Sustainalytics is of the opinion that the criteria of the Framework's clean transportation category map to two EU activities and are aligned with the applicable Technical Screening Criteria ("TSC") in the EU Taxonomy. All activities are assessed as aligned with the applicable Do No Significant Harm Criteria. Sustainalytics is also of the opinion that the activities and projects to be financed under the Framework will be carried out in alignment with the EU Taxonomy's Minimum Safeguards.

## Appendices

### Appendix 1: Approach to Assessing Alignment with the EU Taxonomy

#### Approach to Alignment Assessment

Sustainalytics has assessed each of the eligible green use of proceeds criteria in the Framework against the criteria for the relevant NACE6 activity in the EU Taxonomy. This appendix describes Sustainalytics' process and presents the outcome of its assessment of alignment with the Taxonomy's applicable Technical Screening Criteria (TSC) and Do No Significant Harm (DNSH) criteria. Sustainalytics' assessment involves two steps:

#### 1. Mapping Framework Criteria to Activities in the EU Taxonomy

The initial step in Sustainalytics' assessment process involves mapping each criterion in the Framework to a relevant and applicable NACE activity in the EU Taxonomy. Note that each Framework criterion may be relevant and applicable to more than one NACE activity and vice versa. Sustainalytics recognizes that some Framework criteria relate to projects that do not map well to a NACE activity. In such cases, Sustainalytics has mapped to the NACE activity that is most relevant with respect to the primary environmental objective and impacts.

In some cases, the Framework criteria cannot be mapped to an activity in the EU Taxonomy, as some activities are not yet covered by the Taxonomy, and some categories which are traditionally included in green bonds may not be associated with a specific economic activity. While recognizing that financing projects in these areas may still have environmental benefits, Sustainalytics has not assessed these criteria for alignment.

The outcome of Sustainalytics' mapping process for the Ferrovie dello Stato Italiane Green Bond Framework is shown in Table 1 below.

#### 2. Determining Alignment with EU Taxonomy Criteria

The second step in Sustainalytics' process is to determine the alignment of each criterion with relevant criteria in the EU Taxonomy. Alignment with the TSC and DNSH criteria is usually based on the specific criteria contained in the issuer's Framework, and may in many cases (especially DNSH criteria) also be based on management systems and processes and/or regulatory compliance. To assess alignment with the EU Taxonomy's Minimum Safeguards Sustainalytics has conducted an assessment of policies, management systems and processes applicable to the use of proceeds, as well as examining the regulatory context in the geographical location in which the issuer will finance activities and projects. (This assessment is included in Section 2, above.)

In cases where the Framework criteria describe projects which are intended to advance EU environmental objectives other than Climate Mitigation or Climate Adaptation, the Taxonomy does not include relevant TSC. In these cases, Sustainalytics has assessed the activity for alignment with the DNSH criteria across all objectives.

Sustainalytics' detailed assessment of alignment is provided in Appendix 2.

Table 2: Framework mapping table

Framework Category	Framework Criterion (Eligible Use of Proceeds)	EU / NACE Activity	NACE Code	Primary EU Environmental Objective	Refer to Table
Clean Transportation	Energy Efficiency Improvement	Passenger interurban rail transport	H49.10, N77.39	Mitigation	Table 3
Clean Transportation	Energy Efficiency Improvement	Freight Rail transport	H49.20 and N77.39	Mitigation	Table 4

<sup>6</sup> The EU Taxonomy is based on economic activities defined in NACE (Nomenclature des Activités Économiques dans la Communauté Européenne). The Taxonomy currently lists 70 economic activities which have been chosen due to their ability to substantially contribute to climate change mitigation or adaptation.

## Appendix 2: Comprehensive EU Taxonomy Alignment Assessment

The tables below provide a detailed assessment of the alignment of Ferrovie's Framework criteria with the EU Taxonomy's TSC and DNSH criteria for the relevant NACE activity.

Table 3

Framework Activity assessed	Clean Transportation		
EU Activity	Passenger interurban rail transport		
NACE Code	H49.10, N77.39		
<i>EU Technical Screening Criteria</i>		<i>Alignment with Technical Screening Criteria</i>	
Mitigation	<p>The activity complies with one of the following criteria:</p> <ul style="list-style-type: none"> <li>a. the trains and passenger coaches have zero direct (tailpipe) CO<sub>2</sub> emissions.</li> <li>b. the trains and passenger coaches have zero direct (tailpipe) CO<sub>2</sub> emission when operated on a track with necessary infrastructure and use a conventional engine where such infrastructure is not available (bimode).</li> </ul>	As part of the Clean Transportation category of the Framework, Ferrovie intends to finance only Electric Multiple Unit trains and electric High speed Trains, which fulfill the TSC for this EU Activity.	Aligned
<i>DNSH Criteria</i>		<i>Alignment with DNSH Criteria</i>	
Climate Change Adaptation	Refer to the assessment set out in Appendix 3, table 5		Aligned
Transition to a circular economy	Measures are in place to manage waste in accordance with the waste hierarchy, in particular during maintenance.	<p>The Group's main subsidiaries are certified under ISO 14001:2015 Environment Management System (EMS). The guidelines of EMS are applied to all operations including, procurement of goods and services, waste management, water management, preparation of train and crew, and shunting and maintenance of trains, wagons and locomotives.</p> <p>Ferrovie has communicated that the Group's waste management policy is included in the EMS and the generated waste is managed in accordance with the waste management hierarchy while ensuring compliance with national and European regulations.</p>	Aligned
Pollution Prevention and Control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in	Ferrovie has confirmed that all locomotives are electric and do not have any direct emissions related to combustion.	Aligned

	Annex II to Regulation (EU) 2016/1628 of the European Parliament and of the Council. <sup>7</sup>		
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*Table 4*

<b>Framework Activity assessed</b>	Clean Transportation		
<b>EU Activity</b>	Freight Rail transport		
<b>NACE Code</b>	H49.20 and N77.39		
<b><i>EU Technical Screening Criteria</i></b>		<b><i>Alignment with Technical Screening Criteria</i></b>	
Mitigation	<p>1. The activity complies with one or both of the following criteria:</p> <ul style="list-style-type: none"> <li>a. the trains and wagons have zero direct tailpipe CO<sub>2</sub> emission;</li> <li>b. the trains and wagons have zero direct tailpipe CO<sub>2</sub> emission when operated on a track with necessary infrastructure, and use a conventional engine where such infrastructure is not available (bimode).</li> </ul> <p>2. The trains and wagons are not dedicated to the transport of fossil fuels.</p>	<p>As part of the Clean Transportation category of the Framework, Ferrovie intends to finance electric traction locomotives and wagons for, which fulfill this criteria.</p> <p>Additionally, Ferrovie has confirmed that trains, wagons and locomotives will not be used for the transport of fossil fuels.</p>	Aligned
<b><i>DNSh Criteria</i></b>		<b><i>Alignment with DNSh Criteria</i></b>	
Climate Change Adaptation	Refer to the assessment set out in Appendix 3, Table 5		Aligned
Transition to a Circular Economy	Measures are in place to manage waste in accordance with the waste hierarchy, in particular during maintenance.	<p>The Group’s main subsidiaries are ISO 14001:2015 Environment Management System (EMS) certified. The guidelines of EMS are applied to all operations including, procurement of goods and services, waste management, water management, preparation of train and crew, and shunting and maintenance of trains, wagons and locomotives.</p> <p>Ferrovie has communicated that the Group’s waste management policy is included in the EMS and the generated waste is managed in</p>	Aligned

<sup>7</sup> Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC (OJ L 252, 16.9.2016, p. 53).

		accordance with the waste management hierarchy while ensuring compliance with national and European regulations.	
Pollution Prevention and Control	Engines for the propulsion of railway locomotives (RLL) and engines for the propulsion of railcars (RLR) comply with emission limits set out in Annex II to Regulation (EU) 2016/1628 of the European Parliament and of the Council. <sup>8</sup>	Ferrovie has confirmed that all locomotives are electric and do not have any direct emissions related to combustion.	

### Appendix 3: Criteria for Do No Significant Harm (“DNSH”) to Climate Change Adaptation and Protection and Restoration of Biodiversity and Ecosystems

Table 5

Criteria for DNSH to Climate Change Adaptation		
<i>DNSH Criteria</i>	<i>Alignment with DNSH Criteria</i>	
<p>The physical climate risks that are material to the activities mentioned above have been identified by the Issuer by performing a robust climate risk and vulnerability assessment.<sup>9</sup> The assessment must be proportionate to the scale of the activity and its expected lifespan, such that:</p> <ul style="list-style-type: none"> <li>for investments into activities with an expected lifespan of less than 10 years, the assessment is performed, at least by using downscaling of climate projections.</li> <li>for all other activities, the assessment is performed using high resolution, state-of-the-art climate projections across a range of future scenarios consistent with the expected lifetime of the activity, including, at least, 10 to 30 years climate projections scenarios for major investments.</li> </ul> <p>The issuer has developed a plan to implement adaptation solutions to reduce material physical climate risks to the selected activities under this framework.</p> <ul style="list-style-type: none"> <li>For new activities the Issuer ensures that adaptation solutions do not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities and are</li> </ul>	<p>Ferrovie has a risk management approach in place that includes climate risk. The Group has two main approaches to climate change adaptation: mitigation and adaptation. These dimensions are in line with the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD) and aim to identify possible outcomes of climate-related risk and opportunity factors, at the Group and portfolio level.</p> <p>The Group set up a Project Team in 2020 tasked with developing an infrastructure adaptation plan, building resilience, and maintaining profits in the face of climate-related events. The Project Team carried out the first pilot project for vulnerability assessment, and physical risk modelling to identify the areas with the greatest exposure to climatic events. The assessment used the Representative Concentration Path (RCP) which is a greenhouse gas (GHG) concentration trajectory adopted by the Intergovernmental Panel on Climate Change (IPCC) and describes the different climatic futures possible depending on the volume of GHG in the atmosphere across varied timelines. Ferrovie assessed the adaptation measures for the risk arising under each scenario of the analysis.</p>	Aligned

<sup>8</sup> Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC (OJ L 252, 16.9.2016, p. 53).

<sup>9</sup> The EU Delegated Act identifies several climate related risks and classifies them into chronic or acute risks, Chronic risks include -changing temperature (air, freshwater, marine water), changing wind patterns, changing precipitation patterns and types, coastal erosion, heat stress, ocean acidification, sea-level rise, and solifluction. Acute risks pertain to – heat/ cold wave, wildfire, cyclone, hurricane, tornado, storm, drought, landslide, flood, and glacial lake outburst. For a complete list of climate related risk please refer to Section 2 of Appendix E of EU’s draft delegated regulation (Annex 1), at: [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC\\_WORKFLOW](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC_WORKFLOW)

<p>consistent with local, sectoral, regional or national adaptation efforts.</p> <ul style="list-style-type: none"> <li>For activities that involve upgrading or altering existing assets or processes, the Issuer must implement adaptation solutions identified within five years from the start of the activity. In addition, selected adaptation solutions must not adversely affect the adaptation efforts or the level of resilience to physical climate risks of other people, of nature, of assets and of other economic activities and are consistent with local, sectoral, regional or national adaptation efforts.</li> </ul>	<p>For new projects developed by the Group, Life Cycle Assessment (LCA) is incorporated in all phases with special importance to water consumption, waste management and prevention of soil and air pollution. These assessments aim to improve overall environmental performance of the Group. Ferrovie and its main subsidiaries are ISO 14001: 2015 certified, and all operations including procurement are carried out based on the guidelines of the Environment Management System (EMS) standards. Additionally, Ferrovie has also confirmed that it aims to comply with adaptation laws, directives and policies at the sector, national and international level.</p>	
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