



# **The French Railway Green Bond Programme**

## **Climate Bond Framework**



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# 1. Presentation

## 1.1 The French Railway Reform

The French railway reform published on 5 August 2014 in the “Journal Officiel” and implemented since the 1st of January 2015, aimed to organize a fully integrated railway infrastructure manager within a public railway group.

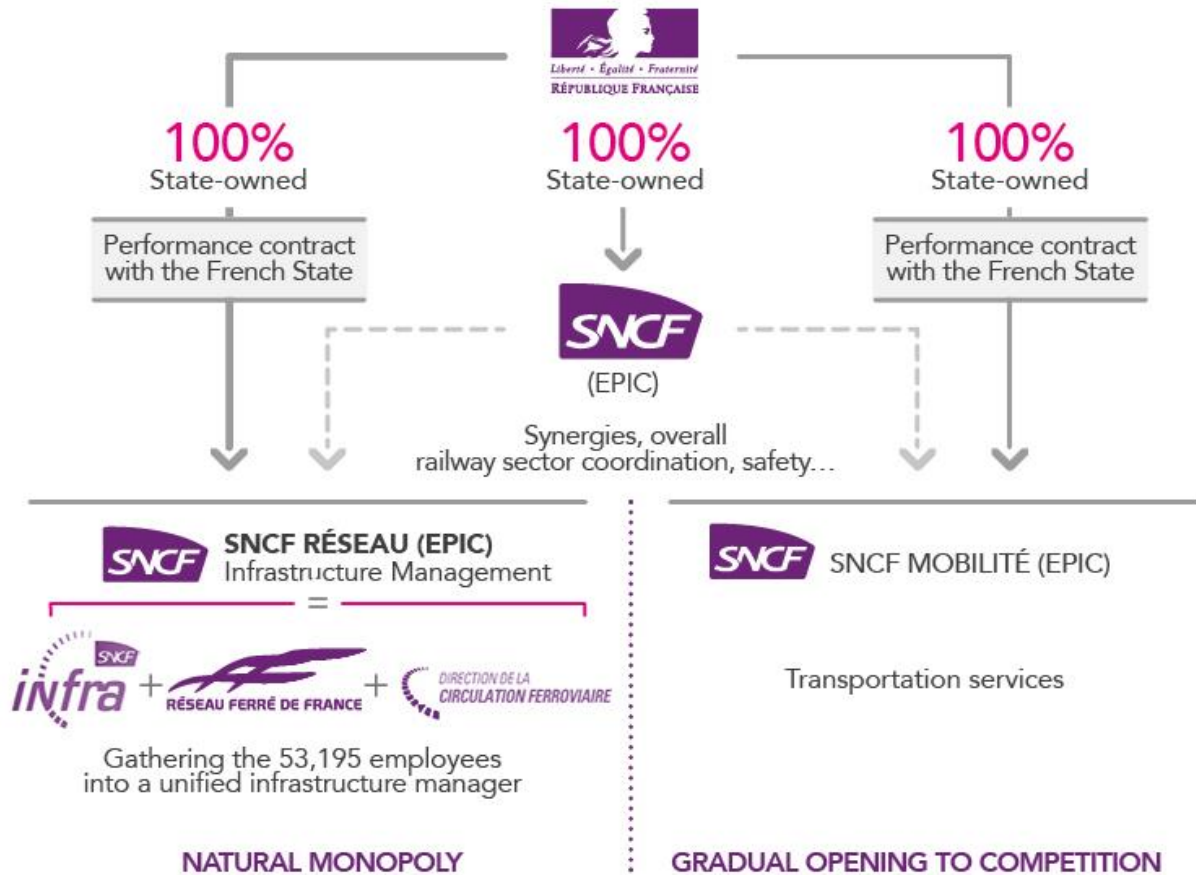
The reform consisted in creating an integrated public railway group comprising a new State-owned industrial and commercial entity (Etablissement Public à caractère Industriel et Commercial – EPIC) named SNCF which has overall responsibility for coordinating and directing the French railway system. The group also comprises now two already existing State-owned industrial and commercial entities (EPIC) that remain 100% directly held by the French State: the previous Réseau Ferré de France, renamed SNCF Réseau (railway infrastructure owner and manager) and the former SNCF, renamed SNCF Mobilités (train operating company).

The reform key points:

- Changes RFF’s name into SNCF Réseau, gathers SNCF Infra, DCF and RFF into an integrated infrastructure manager which takes over RFF’s liabilities and financial commitments, confirms RFF’s EPIC status, reaffirms its pure railway network manager role, redesigns the pluri-annual ‘performance contract’ with the French State, upgrades the board of directors representativeness between the State and local authorities,
- Creates a third EPIC, named SNCF, dedicated to generating synergies and coordinating the overall railway sector,
- Enhances the prerogatives of the railway sector regulator ARAFER : Autorité de régulation des activités ferroviaires et routières

By merging RFF, DCF and SNCF Infra into a fully integrated infrastructure manager (SNCF Réseau), the Government aimed to optimize the management of the national rail network with the objectives of ensuring safety, service quality and cost-control.

By setting-up a head company (SNCF) in charge of the railway sector strategy and gathering mutualized functions, the Government targeted to establish an overall coherence and cost optimization at the group level (HR, strategy, communication, safety, audit, etc..).



## 1.2 SNCF Réseau at a glance

- 53,000** employees
- 1,500** projects undertaken in 2015
- 15,000** trains managed each day
- 30,000 km** of track, of which **2,200 km** of high-speed lines
- +600 km** of additional high-speed track planned in 2017
- 1,000 km** of railway lines renovated annually
- More than 5 million** passengers per day in France
- 250,000 tons** of freight daily in France
- 6 million** train paths granted each year



### 1.3 SNCF Réseau's missions

SNCF Réseau mission is to ensure, develop and operate a reliable, highly effective and sustainable network serving the needs of one of the most **environmentally friendly** public transport systems.

To meet this exacting demand, and through its Network Modernization Plan (GPMR in French), SNCF Réseau is innovating, contributing its expertise to the development of the **multimodal and low carbon mobility solution of the future**.

**SNCF Réseau has 4 core businesses:** Network Access, Engineering and Projects, Maintenance and Works, Traffic Management:

- **Network Access, guarantee access to the network**

SNCF Réseau optimises the allocation of train paths on its rail lines to meet its customers' needs. Many tools are proposed to railway companies to make it easier to access rail infrastructure (feasibility studies, a collaborative platform, opportunities for discussion, etc.).

More information: <http://www.sncf-reseau.fr/en/guaranteeing-access-to-the-network>

- **Engineering and Projects, conduct rail projects**

To offer a rail infrastructure achieving the ultimate in performance, SNCF Réseau carries out the modernization works requested by the Government. Its goal is to meet its customers' and travelers' needs while ensuring their safety. The works are performed in collaboration with local players, taking care to respect the environment.

More information: <http://www.sncf-reseau.fr/en/conducting-rail-projects>

- **Maintenance and Works**

Network maintenance, surveillance on installation site, planning, supplying and carrying out great project ... 24h/24 and 7days/7, Maintenance & Works team maintain and modernize the network. Their objective: To enhance rail safety of the equipment and their performance.

More information: <http://www.sncf-reseau.fr/fr/a-propos/metiers/maintenance-travaux>

- **Traffic Management**

Traffic Management is in charge of optimizing the use of the railway network in real time to keep train traffic running smoothly. By overseeing signaling and routes from their signal boxes, Traffic Management personnel not only see to the regularity and safe running of the trains, but also ensure the safety of crews working on the tracks.

More information: <http://www.sncf-reseau.fr/en/traffic-management>

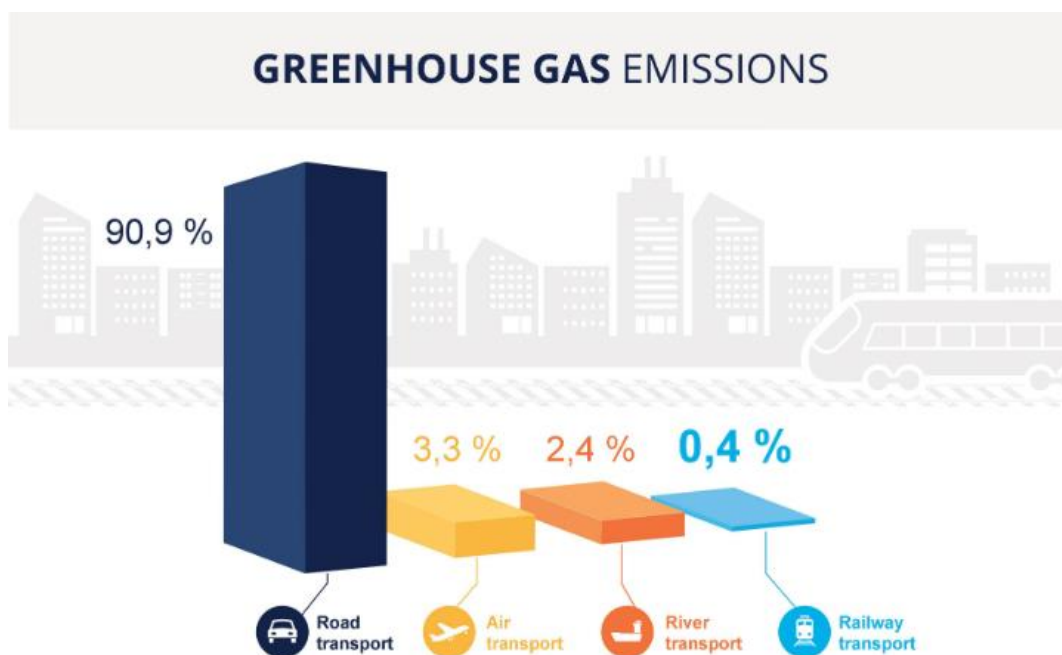
SNCF Réseau includes **the preservation of resources and the protection of biodiversity** as major criteria in projects designing, optimizing the use of materials, working with partners to develop recycling systems, providing transport solutions which reduce fossil fuel consumption and Greenhouse Gas emissions.

More information:

- on the sustainable SNCF Réseau's website: <http://www.sncf-reseau.fr/fr/a-propos/developpement-durable>
- the 2015 CSR Assessment: <http://flipbook.sncf-reseau.fr/2015-CSR-assessment-sncf-reseau#p=0>

## 1.4 SNCF Réseau rationale to issue a Green Bond

Railway transport is a key contributor in the fight to reduce Greenhouse Gases emissions as it emits less than 1% of total CO<sub>2</sub> emissions in France in the transportation system, while transporting 10% of passengers and freight.



*Railway transport is the mode of transport which emits the lowest level of greenhouse gases (source: RFF 2009 – Aiming for a Sustainable Network/ Strategic Orientations 2008-2012)*

SNCF Réseau is taking two major types of actions to encourage travelers to use railway transport rather than road transport (modal shift):

- making railway transport more attractive by continually improving the quality of train paths (i.e. rail traffic units along a specific route at a given time), to meet all customer needs.
- increasing railway capacity (e.g. by having longer freight trains).

In addition, SNCF Réseau is carrying out a major renovation program of its railway network to ensure the safety of passengers and merchandise, traffic security and the safety of all people using level and



pedestrian crossings. Finally, SNCF Réseau has initiated an ISO 14001 certification approach for its industrial sites and set up an adapted Environmental Management System (EMS) for its other entities.

The environmental impact of its railway projects is measured by carbon assessments, and SNCF Réseau is aiming to optimize the use of natural resources and recycle railway products as part of its circular economy policy.

More information on the circular economy policy: <http://www.sncf-reseau.fr/en/circular-economy-and-recycling-of-disposed-products>

Drafted in 2015 by the Environment and Sustainable Development Department, with SNCF Réseau's four core businesses and transversal functions, the CSR policy was designed and highlights four major challenges, sixteen commitments and three major principles.

More information reading the 2015 CSR Assessment: <http://flipbook.sncf-reseau.fr/2015-CSR-assessment-sncf-reseau#p=0>

For SNCF Réseau, the maintenance and modernization of its current infrastructure is an absolute priority. A total of €6.2 billion is invested for 2015. More €2.6 billion are spent for more than 1,500 major projects undertaken for the daily trains running on the traditional network.

## 2. Green Bond Framework

This Green Bond Framework has been created to facilitate transparency, disclosure, integrity and quality of SNCF Réseau Green Bond issues. This framework is in alignment with the Green Bond Principles, 2016 (GBP) and the Climate Bond Initiative Low Carbon Transportation standard.

SNCF Réseau Green Bond will follow the four components as described by the GBP: Use of Proceeds, Process for Project Selection, Management of Proceeds and Reporting.

### 2.1 Use of Proceeds

An amount equal to such net proceeds will be allocated for investments in one or more of the "Eligible Green Projects". Eligible Green Projects include new and ongoing projects with disbursements within the past 2 years in which the Notes are issued until the maturity of the Notes.

"Eligible Green Projects" include:

- **Investments related to maintenance, upgrades and energy efficiency of the rail system**
- **Investments related to new rail lines and rail lines extensions which ensure access to the network and the efficient movement of people and freight**
- **Other Investments linked to the global climate change challenges, the protection of biodiversity and natural resources\***



\*Note: SNCF Réseau expects the majority of the allocation to the first two eligible green project categories. The inclusion of other investments linked to the protection of biodiversity and natural resources is essential to SNCF Réseau’s overall environmental and sustainability strategy.

## 2.2 Example of Eligible Green Projects

Below you can find some examples of Eligible Green Projects ordered in three categories:

### 1. Investments related to maintenance, upgrades and energy efficiency of the rail system:

This category includes projects associated with SNCF Réseau’s efforts to ensure the efficiency of the rail system and promote a low carbon mass transportation, throughout its various worksites. Typology of worksites could be: path, catenary or signaling system regeneration, capacity enhancement project, electrification of a railway line...

More information on the SNCF Réseau’s website:

- Worksite map 2016: <http://www.sncf-reseau.fr/sites/default/files/upload/ Carte/2016/SNCF MEP Chantiers2016 80x120 v1 SD %20%282%29.pdf>

### MAJOR WORKSITE 2016

Among 1500 worksite – 04/01/2016

Purple dotted:	High-speed project under construction with junction to the existing network
Blue:	Path worksite, including high-output track replacement units (in order to reduce the railway age)
Brown:	Signaling system installation (to manage the train traffic)
Purple:	Development project
Green:	Switches and controlling signal boxes
Yellow:	Civil engineering infrastructure made with land
Orange:	Technology project as ERTMS system (optical fiber GSM-RAIL)
Red:	Catenary regeneration to improve the electrification on the line
Pink point:	Station
Blue point:	Electrical substation
Brown point:	Level crossing

Most of the worksites on the map are more than 1 million of euros investment





- A focus on the specific maintenance project called “high-output track replacement units”:  
[http://www.sncf-reseau.fr/sites/default/files/upload/\\_Carte/2015-mars/Suites\\_rapides\\_2015.pdf](http://www.sncf-reseau.fr/sites/default/files/upload/_Carte/2015-mars/Suites_rapides_2015.pdf)
- 2. Investments related to new rail lines and rail lines extensions which ensure access to the network and the efficient movement of people and freight:**

This category includes projects for the rail development which are already put into service or expected high-speed line.

More information on example of high-speed or development project:

- **LGV Est-Européenne** : <http://www.lgv-est.com/>
- **LGV SEA**: <http://www.lgv-sea-tours-bordeaux.fr/>
- **LGV BPL**: <http://www.lgv-bpl.org/>
- **LGV CNM**: <http://www.ocvia.fr/>
- **Projet EOLE**: <http://www.rer-eole.fr/>

- 3. Other Investments linked to the global climate change challenges, the protection of biodiversity and natural resources:**

This category will include projects which ensure the inclusion of the protection of biodiversity and natural resources in the management approach of the existing railway network and in development projects.

- Conservation of biodiversity and the quality of natural environments: <http://www.sncf-reseau.fr/en/conservation-of-biodiversity-and-the-quality-of-natural-environments>
- Circular economy and recycling of disposed products: <http://www.sncf-reseau.fr/en/circular-economy-and-recycling-of-disposed-products>
- Fight against climate change: <http://www.sncf-reseau.fr/en/fight-against-climate-change>

Examples are intended for illustrative purposes only and no assurances can be provided that disbursements for projects with these specific characteristics will be made by SNCF Réseau.

## 2.3 Selection Process

The Treasury and Funding Department in coordination with the Accounting and the Environment and Sustainable Development Departments will review the allocation of the projects annually. Projects that are aligned with the Use of Proceeds identified in section 2.1 above will be considered for eligible green bond proceeds allocation.

If projects are considered eligible, they will be recorded in the SNCF Réseau Green Bond Register and tracked for the life of the involvement in the Green Bond.

The Environment and Sustainable Development will complete the annual reporting.



## 2.4 Management of Proceeds

Pending allocation of an amount equal to the net proceeds from the sales of the Notes to Eligible Green Projects, SNCF Réseau will temporarily invest an amount equal to the net proceeds from the sales of the Notes in monetary funds managed following a responsible investment approach, bank deposits, cash, and/or cash equivalents. Payment of principal and interest of the Notes will be made from our general funds and will not be directly linked to the performance of the Eligible Green Projects.

## 2.5 Reporting

Within one year of the issuance, and until the full allocation of an amount equal to the net proceeds of SNCF Réseau Green Bonds issued, SNCF Réseau will provide to investors (i) annual updates on website ([www.sncf-reseau.fr](http://www.sncf-reseau.fr) > Investors) on the amounts allocated to the Eligible Green Projects, (ii) relevant expected impact metrics and where feasible actual impact metrics, related to the Eligible Green Projects where competition and confidentiality reasons allow. (iii) Auditors or any other third party appointed by SNCF Réseau, will issue an annual report on SNCF Réseau's compliance in all material respects with the Eligible Green Project criteria set forth in these documents.

Examples of relevant metrics could include:

### **1. Investments related to maintenance, upgrades and energy efficiency of the rail system**

- Total GHG emissions of the maintenance project called high-output track replacement units (tCO<sub>2</sub>eq)
- Estimated FTE's creation on the maintenance site
- Age of the railway by type of railway
- Volume of wooden sleepers recycled for energy purposes (tons)
- Share of ballast re-used on the maintenance project (tons)
- Share of concrete sleepers recycled from the maintenance project (tons)
- Share of re-used rails from the maintenance project (tons of steel)

### **2. Investments related to new rail lines and rail lines extensions which ensure access to the network and the efficient movement of people and freight**

- Total GHG emissions of the project (tCO<sub>2</sub>eq)
- Modal shift : Number of passenger or goods transferred to the train
- Total GHG emissions avoided because of the project (tCO<sub>2</sub>eq)
- Estimated FTE's creation on the construction site
- Estimated average time saving because of the project (min)

### **3. Other investments linked to the global climate change challenges, the protection of biodiversity and natural resources**

Currently metrics are not yet available in this category but expect to be developed over time. Examples of impact metrics are intended for illustrative purposes only and no assurances can be provided that these exact metrics will be provided. Relevant impact metrics will be provided and may/will differ depending on the type of project.



### 3. Second Opinion

SNCF Réseau selected a “Second Opinion Provider” to assist the finalization of the Green Bond Framework, which will sum up the main extra-financial features of the potential future transaction and will provide a “Second Party Opinion” on this framework.

The objective of the Second Party Opinion is to provide investors an independent assessment on the alignment of the framework with the GBP in accordance with CSR SNCF Réseau’s policy.

The Second Opinion will be provided by Oekom research.



### 4. Climate Bond Certification

SNCF Réseau selected oekom research to act as a verifier for obtaining a Climate Bond Initiative Certification.

The Climate Bond Initiative certification will be related to the Low-Carbon Transportation Standard.

