

Luxembourg, 10 December 2021

**Public**

## Environmental and Social Data Sheet

### Overview

Project Name:	NS RAIL ROLLING STOCK EXPANSION
Project Number:	2021-0401
Country:	The Netherlands
Project Description:	Purchase of new rolling stock for the operation of commuter, regional and main railway services within the Netherlands and Belgium.
EIA required:	no
Project included in Carbon Footprint Exercise <sup>1</sup> :	yes

### Environmental and Social Assessment

#### Environmental Assessment

The project is the acquisition of:

- 88 3 and 4-car electrical multiple units (EMUs) called “Sprinter Next Generation” (SNG) expected to be delivered by the end of 2022 to operate regional and commuter services on the Dutch railway network.
- 20 eight-car articulated EMUs called “InterCity Next Generation-Belgium (ICNG-BE)” which can operate on both the conventional railway network in Netherlands and the High Speed Line (HSL) between Amsterdam-airport (Schipol) and Antwerp. Their delivery is expected by Q1 2023. These ICNG trains are planned to be used for international services between Amsterdam and Brussels.

The manufacturing of rail rolling stock does not fall under Annex I or Annex II of the Environmental Impact Assessment (EIA) Directive (2011/92/EU). Therefore no EIA is required for the project. Also no significant impact on protected nature areas such as the Natura 2000 areas is foreseen.

Most of the rolling stock will replace existing rolling stock that are at the end of their life. Part of the new rolling stock will be used to increase the frequency and quality of passenger transport services on some lines in the Netherlands. The Project is thus expected to contribute to the improving of the level of usage of railway passenger services to accommodate future growth post-Covid 19, an essential ingredient in the greener economic recovery program. Preventing a shift of passenger flows from rail to road while building confidence in public transport, will result, in comparison with the “without project” scenario, in reduced vehicle operating costs, time savings, improved transport safety and environmental benefits including reduction of GHG emissions.

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 20,000 tons CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

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This acquisition is part of NS sustainability strategy and the outcome of procurement process that included sustainability such as rolling stock recyclability as part of selection criteria.

It is expected that at least 95% of the materials of the ICNG trains can be recycled. Regarding the SNG option, NS demanded that all trains parts (systems, components and materials) shall be removable and processed with no negative environmental impact at the end of their life.

The new rolling stock will be equipped with the state-of-art technology in terms of energy efficiency. For instance, the trains are equipped with LED lighting and an intelligent light system. The new rolling stock will also be in conformity with the requirements for accessibility for persons with reduced mobility. Furthermore, as from 2018, 100% of NS electric trains will be running in the Netherlands on green electricity supplied by sustainable power generation (wind farms constructed solely for the NS). Rail journeys on the newly acquired trains will be thus climate neutral.

The new rolling stock is expected to be maintained in existing facilities of the promoter. The promoter has all relevant environmental consents for the operation of its depots and implemented required environmental protection measures, such as for waste treatment and noise abatement. The replaced old rolling stock will be either scrapped or sold on the second hand market with prior inspection and removal of any hazardous materials. If the final decision is to scrap the old rolling stock, this will be done by entities specifically certified for the corresponding activities with a high focus on re-use of materials.

The project has been assessed by the Bank's services for Paris alignment in accordance with the policies set out in the Climate Bank Roadmap. The project consists of acquisition of zero direct emission mobile assets and, therefore, it is considered to be aligned against low carbon goal. A climate vulnerability assessment done by the promoter identified some risk for its future operations due to climate change, in particular increased floods, heat and storm damage, and has a program to address these risks. The overall climate risk of the project is assessed as low and, therefore, it is considered to be aligned against the resilience goal.

## **EIB Carbon Footprint Exercise**

Estimated annual emissions of the new SNG and ICNG trains during normal operation in a standard year of operation is estimated to be about 71 kton/year, assuming the grid factor of the Dutch electricity net for the whole project<sup>2</sup>. In the base case, the emission is estimated to be 85.5 kton /year, hence the project is foreseen to reduce emissions by 14.8 kilotons of CO<sub>2</sub> equivalent per year.

The assessment is based on the following boundaries: i) for the project scenario emissions from the new electric rolling stock and ii) for the base case the emissions of existing almost obsolete electric rolling stock and some private car transport from future passengers that shift to the railways due to the project.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost. These forecasts may differ from those of the Promoter due to different assumptions, boundaries and baselines.

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<sup>2</sup> Albeit the NS only uses electricity from renewable energy sources, in accordance to EIB carbon footprint methodology this assessment is based on average grid values.

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## Conclusions and Recommendations

The purchase of rolling stock does not fall under either Annex I or II of the Environmental Impact Assessment (EIA) Directive 2011/92/EU, as amended; so an EIA is not required. The main environmental benefit of the operation consists in maintaining the attractiveness of the railway services, preventing a shift towards road transport. In the absence of the investment, the rail service quality would deteriorate and encourage the use of private cars with the associated negative impacts in terms of noise, energy consumption, emission of pollutants and transport safety.

Under the conditions indicated above, the project is acceptable for Bank financing from an environmental and social point of view.