EUROFIMA
ROLLING STOCK FINANCING

GREEN BOND IMPACT REPORTING

MARCH 2022

1.

FOREWORD

EUROFIMA'S MISSION

Since its establishment in 1956, EUROFIMA has extended EUR 90 billion of loans to its shareholder-clients for renewal and modernization of their rolling stock equipment, as such fulfilling its mission to support the development of public passenger rail transportation in Europe.

The contracting states that signed the EUROFIMA Convention [(Link to Convention)] recognized, already at that time, the importance that "the railway can play its role in the general economy [...] if it is in a position to effect investments corresponding to a normal renewal and to an indispensable modernization of rolling stock".

Rail has always been one of the lowest, if not the lowest, carbon transport mode and has played a positive role in society, supporting economic development and offering congestion-free access to employment and leisure opportunities. Nevertheless, the awareness of railroad transport's role as a key driver of sustainable development has increased significantly only in recent years, as a result of the increasing attention on sustainability at all levels of our society, among decision makers and investors.

Switzerland - Source : SBB CFF FFS

Belgium - Source : SNCB

SUSTAINABILITY

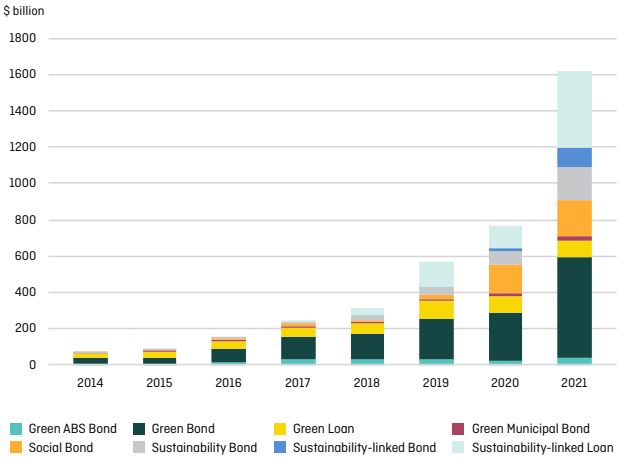
The concept of a sustainable society has been around for decades. In 1981, Lester Brown, founder of the Worldwatch Institute, defined a sustainable society as "one that is able to satisfy its needs without diminishing the chance of future generations." Since then, the concept has evolved to include a broad range of social, economic and environmental elements that are supposed to work in harmony together and today it has become one of the most pressing topics in our society.

Sustainability has also been an increasingly important point on the political agenda, especially in Europe as highlighted by the principles included in art. 3 of the EU Treaty: "[The Union] shall work for the sustainable development of Europe based on balanced economic growth [...] aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment [...]."

In addition, the EU's support of a transition to a low-carbon, more resource-efficient and sustainable economy has strengthened with the adoption of the UN 2030 agenda and sustainable development goals, the Paris climate agreement in 2015 and very recently culminated with the European Green Deal, a growth strategy aiming to make Europe the first climate neutral continent by 2050 and the European Green Deal Investment Plan, which is expected to mobilize at least EUR 1 trillion of sustainable investments over the next decade.

At the same time, the role of the financial markets in promoting sustainability has increased considerably, as witnessed by an exponentially increasing green, social and sustainable bonds market.

Global sustainable debt annual issuance, 2014-2021

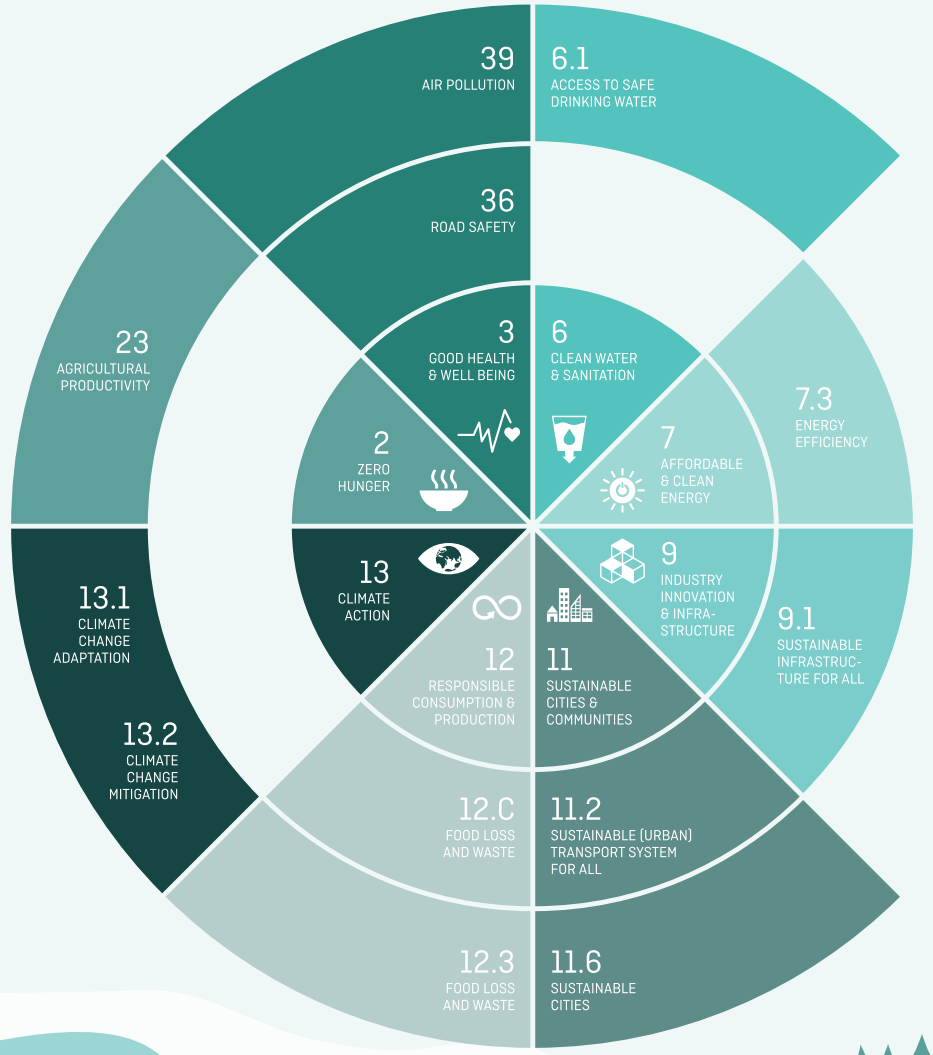


Source: BloombergNEF, Bloomberg L.P.

THE CENTRAL ROLE OF THE RAILWAYS SECTOR IN THE DEVELOPMENT OF SUSTAINABLE TRANSPORT

About sixty years after EUROFIMA's establishment, clean transportation has become a central element of all sustainable development efforts. In the final report of the Open Working Group on Sustainable Development Goals (SDG)[1], transport related targets are included in eight out of the seventeen SDGs (Goals 2, 3, 6, 7, 9, 11, 12, 13). Transportation makes also direct and indirect contributions to at least thirteen SDG targets and is directly related to five SDG indicators.

[1] The Sustainable Development Goals (SDGs), officially known as "Transforming our world: the 2030 Agenda for Sustainable Development", are a set of seventeen aspirational global goals, with 169 specific targets, adopted through a United Nations resolution in September 2015.



Rome, Italy - Source : iStock

Transportation stimulates economic and social development, ensures accessibility to opportunities, but is also associated with a number of direct and indirect externalities, such as: traffic congestion, air pollution (responsible for about a fifth of global CO_2 emissions) and road accidents.

In this context, railroad transportation offers unparalleled energy efficiency and very low carbon emissions, when coupled with modern clean energy sources. Therefore, railroad transportation can play an important role in delivering a wide range of sustainable development goals and their supporting targets (e.g., overall economic development, social equality, poverty reduction, and enhanced sustainability).

Since its establishment EUROFIMA has made significant contributions to a sustainable society.

Up until year	Collateral mileage of the trains financed by EUROFIMA	Transported passengers on trains financed by EUROFIMA	CO_2 emissions saved
2021	317 billion km	31 billion passengers	158 million tons

In addition, EUROFIMA endeavours to make a long-term, active contribution to a sustainable society and to climate protection through its Green Bonds and lending activity. The net proceeds from the Green Bond issuances are invested in Eligible Assets[2], hence both incentivizing and supporting the development of sustainable mobility for our railway clients. Through its funding and lending activities EUROFIMA actively participates in development of long-term sustainable mobility as a financing source of rolling stock for the European railway administrations and as, effectively, a pure player in European public service railroad transportation.

[2] As defined in EUROFIMA GBF, published in 2018 and updated in 2021. [Link to Green Bond Framework]

2.

ABOUT THIS REPORT

REPORTING FRAMEWORK AND GUIDELINES

Reporting is an important mechanism that demonstrates transparency and accountability to our stakeholders. This report has been produced in line with the requirements set out in our Green Bond Framework Framework the ICMA "Handbook - Harmonized Framework for Impact Reporting" issued in December 2020 (Read more) and incorporates some of the elements included in the TEG Report "Proposal for an EU Green Bond Standard", published in June 2019 (Read more), the TEG final report on the EU taxonomy (Read more) and its technical annex published in March 2020 (Read more).

REPORTING SCOPE

This report presents the expected environmental impacts of projects financed with the Green Bond proceeds fully allocated at the time of this report, the impact reporting methodology applied and the related governance process.

Unless otherwise indicated, the reported impacts are Scope 1 (i.e., direct GHG emissions) as defined in the Greenhouse Gas Protocol[3]. Impact is reported for the aggregated portfolio of eligible assets as of November 30, 2021 (i.e., on a portfolio basis[4]).

[3] Read more page 25, definition Scope 1: Direct GHG emissions. (Link)

[4] In line with recommendations included in the EU Taxonomy Technical Report by TEG, §4.2 page 59. (Link)

Hillerod, Denmark - Source : AdobeStock

3. OVERVIEW

As of November 30, 2021, EUROFIMA has allocated a total of EUR 3.693 million of net proceeds from its Green Bond issuance to investment projects aligned with the Green Bond Framework (GBF) (Link to GBF).

Annual GHG emissions savings

2'167'809 tCO_2
1'584 tCH_4 [5]
7'026 tN_2O [6]

Avoided annual emissions

2'167'809 tCO_2
1'584 tCH_4
7'026 tN_2O

Reduced annual emissions

0 tCO_2
0 tCH_4
0 tN_2O

Energy annual savings

2'988.7 GWh

Avoided energy use

2'988.7 GWh

Reduced energy use

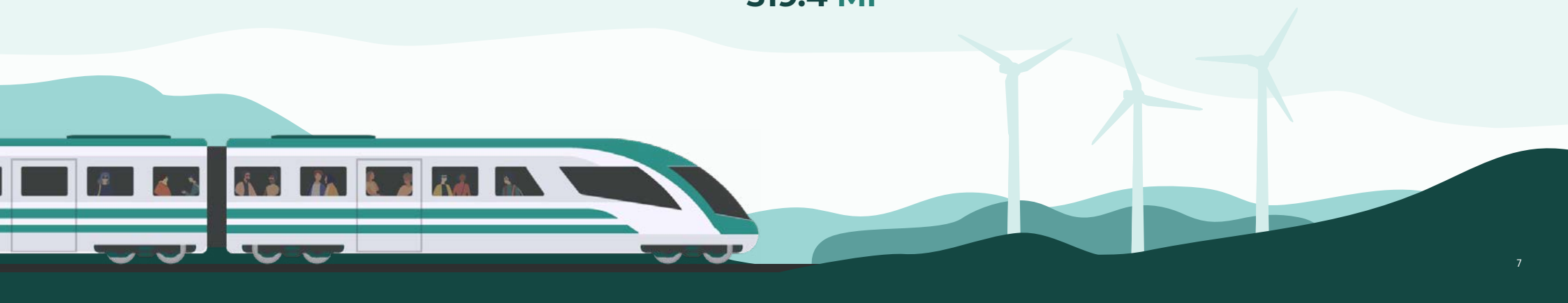
0 GWh

Annual reduction of fuel consumption

319.4 Ml

[5] CH_4 is the chemical formula of Methane, a greenhouse gas, which is emitted in production, refinement, transportation, and storage of crude oil.

[6] N_2O is the chemical formula of Nitrous Oxide, a greenhouse gas, which is emitted during the combustion of petrol and diesel fuel.



4.

SDG MAPPING

While backing all of the 17 SDGs[1], as defined by the United Nations in September 2015 for the period 2015-2030, EUROFIMA can mainly contribute to Goal 9 and Goal 11 according to its areas of competence, which is acknowledged by Second Party Opinion. The mapping has been inspired by the ICMA high-level mapping to SDGs [Read more] and existing practices of issuers of Green Bonds in the transportation sector.

EUROFIMA's use of proceeds for Electric rolling stock equipment shows its commitment to the two following SDG:

Innovation and Infrastructure: efficient, clean and environmentally sound mobility to enable development and employment.

Sustainable Cities and Communities: social development via access to inclusive transportation and mobility in rapidly urbanizing cities.

EUROFIMA strives to foster adequate rolling stock equipment for passenger transport to improve safety, air pollution and inclusive mobility, given the challenges of urbanisation. EUROFIMA considers itself as particularly well positioned to facilitate innovation in and efficient use of resources of sustainable passenger railway transportation.

Belgium - Source : SNCB

Spain - Source : Renfe

5. ENVIRONMENTAL OBJECTIVES

The projects financed with the proceeds of EUROFIMA Green Bonds are contributing to the following environmental objective: climate change mitigation. (Read more)

There are several principal climate mitigation options for the "greening" of the transport sector including, most relevant for EUROFIMA, the following ones:

- Increasing the number of low and zero emission vehicles;
- Improving vehicle efficiency;
- Substituting fossil fuels with alternative and net-zero carbon fuels, and
- Improving efficiency of the overall transport and mobility system (Read more).

EUROFIMA green projects contribute to some extent to all of the above objectives, as they finance electric rolling stock.

The passenger electric railway activity is already a low carbon one: it is a zero-direct emission mode of transportation. With near-to-zero carbon electricity generation it is already compliant with a 2050 net-zero carbon activity[7].

EUROFIMA financing focuses on clean transportation projects through supporting the procurement and deployment of clean transportation via modal shift (i.e., moving people to more sustainable and less polluting means of transportation) and low emissions (i.e., reducing GHG emissions and air pollutants per unit of service provided).

[7] Read more page 329 of the EU Taxonomy Technical Report by TEG. (Link)

6.

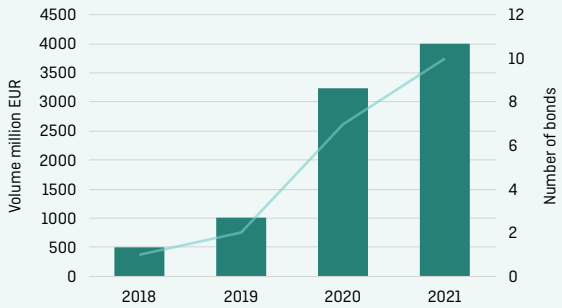
EUROFIMA GREEN BONDS

As of December 31, 2021 total outstanding Green Bonds amounted to EUR 4'007 million principal. In 2018, EUROFIMA launched its inaugural Green Bond with a EUR 500 million 2024 benchmark and subsequently issued another five EUR Green Bonds maturing in 2026, 2028, 2030, 2034, 2041, three SEK Green Bonds maturing in 2024, 2025, 2028 and one CHF Green Bonds maturing in 2031. All net proceeds of the Green Bonds were fully allocated as of November 30, 2021 except for the last two Green Bonds issued in December, 2021 which are the EUR tap 85.5 million maturing 2028 and the new CHF 250 million issuance maturing 2031. Those will be allocated in the next allocation report in December 2022.

EUROFIMA Green Bonds issued up to December 31, 2021

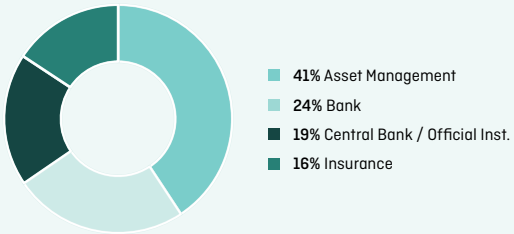
EUROFIMA Green Bond	ISIN	Currency	Issue Date	Maturity Date	Coupon	Amount issued EUR (m)	Allocated %
EUROF 0 1/4 02/09/24	XS1919899960	EUR	10.12.2018	09.02.2024	0.25 %	500	100 %
EUROF 0.15 10/10/34	XS2055744689	EUR	10.10.2019	10.10.2034	0.15 %	1380	100 %
EUROF 0.1 05/20/30	XS2176621253	EUR	20.05.2020	20.05.2030	0.10 %	750	100 %
EUROF 0 07/28/26	XS2210044009	EUR	28.07.2020	28.07.2026	0.00 %	300	100 %
EUROF 0.49 11/27/28	XS2264546917	SEK	27.11.2020	27.11.2028	0.49 %	146	100 %
EUROF 0.2125 12/03/25	XS2266970040	SEK	03.12.2020	03.12.2025	0.21 %	99	100 %
EUROF 0.1 12/04/24	XS2269162371	SEK	04.12.2020	04.12.2024	0.10 %	54	100 %
EUROF 0 1/2 04/23/41	XS2332851026	EUR	19.04.2021	23.04.2041	0.50 %	250	100 %
EUROF 0.01 06/23/28	XS2356409966	EUR	23.06.2021	23.06.2028	0.01 %	336	75 %
EUROF 0 12/22/31	CH1149985959	CHF	22.12.2021	22.12.2031	0.00 %	192	0 %
Total						**4,007**	

EUROFIMA cumulative outstanding Green Bonds up to December 31, 2021

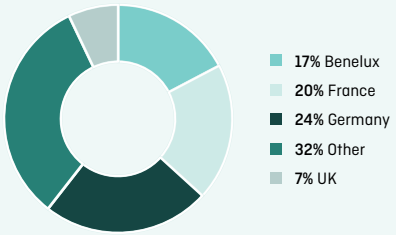


EUROFIMA Green Bond Distribution

% by investor type



% by geographical region



7.

IMPACT REPORT ON ALLOCATED NET PROCEEDS

The impact data refers to net proceeds of EUROFIMA Green Bonds, which are fully allocated as at the date of the report[8] and so out of EUR 3'971 million total net proceeds EUR 3'693 million have been allocated as per most recent Allocation report. The unallocated amount is EUR 278 million.

Green Bond proceeds not allocated to Eligible Green Assets are held in accordance with EUROFIMA's liquidity management policy.

IMPACT INDICATORS

EUROFIMA reports on the following core indicators, with the goal of quantifying the savings generated:

1. Estimated annual Green-House Gas emissions (GHG) reduced or avoided, measured in tons of CO_2, N_2O[6], and CH_4[5]
2. Estimated annual energy consumption reduced or avoided, measured in GWh
3. Estimated CO_2 emissions per passenger kilometer (gCO_2/pkm), for each type of rolling stock
4. Estimated energy consumption per passenger kilometer (MJ/pkm), for each type of rolling stock
5. Number of clean vehicles financed and deployed (i.e., electric rolling stock).

Scope of eligible expenditures

Scope of eligible expenditures	
Capital expenditure	100%
Operating expenditure	0%
Working capital	0%
Tangible assets	100%
Intangible assets	0%
Percentage financed by EUROFIMA	100%

[8] As per the Allocation Report of November 30, 2021.

Impact Report (1/5)

Project main data			Project details						Values by pkm		Total impact data**		Impact data (per EUR 1M)***		Additional annual reduction/avoidance of air pollutants		
Borrower	Project location	Project description	Project start	Project lifetime*	Project costs	Vehicles deployed	Asset average age	Annual Passengers *km	CO_2 emissions	Energy consumption	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CH_4 emissions reduced/avoided	Annual N_2O emissions reduced/avoided	Annual estimated reduction in fuel consumption
			Year	in years	EUR millions	in number	in years	Pmkm	g/pkm	MJ/pkm	Tons	GWh	Tons/ML€	GWh/ML€	Tons	Tons	Ml Liter
CFL Luxemburg	LU	Financing of the 4 brand new double deck EMUS (Class 2400 from Alstom) for cross country services to France and Belgium, procured to meet a growing passengers demand of 3/5% annually.	2019	6.0	26	4	To be delivered	25.0	0.0	0.32	4'834	6.8	185.9	0.3	3.5	15.7	0.7
CFL Luxemburg	LU	Financing of the 3 brand new double deck EMUS (Class 2400 from Alstom) for cross country services to France and Belgium, procured to meet a growing passengers demand of 3/5% annually.	2019	10.3	24	3	To be delivered	18.8	0.0	0.32	3'625	5.1	151.1	0.2	2.6	11.7	0.5
SBB Bern	CH	Financing for 22 EMUs (Stadle Kiss and Siemens Desiro) utilized for suburban and regional traffic in canton Zürich (mainly Zürich S-Bahn)	2019	4.9	180	22	10.0	258.3	0.0	0.29	49'943	72.5	277.8	0.4	36.5	161.9	7.7
RENFE Operadora Madrid	ES	Financing of 80 5-cars Civia from CAF/Siemens/Alstom, utilized in Regional and sub-urban/commuter traffic in several areas of Spain	2019	15.0	300	80	13.7	896.1	0.0	0.32	173'243	243.9	577.7	0.8	126.6	561.5	26.1
FS Rome	IT	Financing of 81 light, single-cab E464 locomotives and relevant 29 Double Deck Vivalto coaches and 5 Alstom Minuetto 3-cars EMUs, which are utilized in the regional traffic in various Italian regions	2019	14.8	134	115	13.3	729.1	0.0	0.39	140'965	184.3	1'055.1	1.4	103.0	456.9	19.7
SBB Bern	CH	Financing for 1 Siemens Rabe 514 EMUs utilized for suburban and regional traffic in canton Zürich (mainly Zürich S-Bahn)	2019	9.4	6	1	13.3	10.3	0.0	0.29	1'986	2.9	320.3	0.5	1.5	6.4	0.3
FS Rome	IT	Financing of 82 light, single-cab E464 locomotives, 2 Double Deck Vivalto coaches and 1 Alstom Minuetto 3-cars EMUs, which are utilized in the regional traffic in various Italian regions: besides, Eurofima financed 23 E403 multi system locomotives, mainly used in Intercity and night traffic along the Adriatic line.	2020	14.5	200	108	11.6	978.5	0.0	0.39	189'173	247.3	946.6	1.2	138.2	613.1	26.4

Impact Report (2/5)

Project main data			Project details						Values by pkm		Total impact data**		Impact data (per EUR 1M)***		Additional annual reduction/avoidance of air pollutants		
Borrower	Project location	Project description	Project start	Project lifetime*	Project costs	Vehicles deployed	Asset average age	Annual Passengers *km	CO_2 emissions	Energy consumption	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CH_4 emissions reduced/avoided	Annual N_2O emissions reduced/avoided	Annual estimated reduction in fuel consumption
			Year	in years	EUR millions	in number	in years	Pmkm	g/pkm	MJ/pkm	Tons	GWh	Tons/ML€	GWh/ML€	Tons	Tons	Ml Liter
SBB Bern	CH	Financing for 20 FLIRT EMUs utilized for suburban and regional traffic in across Switzerland (mainly around Leman Lake, canton Vaud and Zug S-Bhan)	2020	7.0	117	20	7.4	86.1	0.0	0.29	16'655	24.2	142.6	0.2	12.2	54.0	2.6
FS Rome	IT	Financing of 57 light, single-cab E464 locomotives and relevant 94 Double Deck Vivalto coaches, which are utilized in the regional traffic in various Italian regions	2020	9.9	200	151	9.2	726.9	0.0	0.39	140'541	183.8	702.7	0.9	102.7	455.5	19.6
SBB Bern	CH	Refinancing of 13 Stadler Kiss EMUs (4-cars version), utilized for suburban and regional traffic in canton Vaud and along the Leman lake	2020	10.0	104	13	9.5	117.2	0.0	0.29	22'660	32.9	216.9	0.3	16.6	73.4	3.5
RENFE Operadora Madrid	ES	Financing of 27 5-cars Class 449 from CAF, utilized in the Regional traffic and partly also as Intercity, in various area of Spain	2020	9.9	94	27	15.4	287.1	0.0	0.32	55'515	78.2	592.2	0.8	40.6	179.9	8.4
RENFE Operadora Madrid	ES	Financing of 32 of Civia trains from CAF/Siemens/Alstom, both in the 3,4 and 5-cars version, utilized in Regional and sub-urban/commuter traffic in several areas of Spain	2020	14.3	85	32	14.1	264.5	0.0	0.32	51'144	72.0	599.0	0.8	37.4	165.8	7.7
DSB Copenhagen	DK	Financing of the brand new 44 Siemens Vectron Locomotives, to be utilized in Regional traffic in the main island of Seeland	2020	1.6	80	44	0.6	271.2	0.0	0.32	52'431	73.8	655.4	0.9	38.3	169.9	7.9
RENFE Operadora Madrid	ES	Financing of 4 S-104 High Speed trains from Alstom and 13 S-114, which represent their more modern evolution; these specific ID numbers are mainly used to support the regional traffic, with also some seldom utilization for Intercity and High speed services.	2020	9.8	166	17	12.0	547.1	0.0	0.32	105'769	148.9	638.9	0.9	77.3	342.8	15.9

Impact Report (3/5)

Project main data			Project details						Values by pkm		Total impact data**		Impact data (per EUR 1M)***		Additional annual reduction/avoidance of air pollutants		
Borrower	Project location	Project description	Project start	Project lifetime*	Project costs	Vehicles deployed	Asset average age	Annual Passengers *km	CO_2 emissions	Energy consumption	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CH_4 emissions reduced/avoided	Annual N_2O emissions reduced/avoided	Annual estimated reduction in fuel consumption
			Year	in years	EUR millions	in number	in years	Pmkm	g/pkm	MJ/pkm	Tons	GWh	Tons/ML€	GWh/ML€	Tons	Tons	Ml Liter
RENFE Operadora Madrid	ES	Financing of 16 S-104 High Speed trains from Alstom, mainly used to support the regional traffic and with also some seldom utilization for Intercity and High speed services.	2020	14.2	96	16	16.9	514.9	0.0	0.32	99'548	140.2	1'032.9	1.5	72.7	322.6	15.0
SBB Bern	CH	Refinancing of 14 Stadler Rabe 526, based on the GTW family, that are operated by Thurbo in regionals services, mainly in the area around Zürich and St Gallen and of 28 Kiss utilized to serve the traffic in the Zürich S-Bhan.	2020	6.0	279	42	11.5	460.3	0.0	0.29	88'988	129.1	318.5	0.5	65.0	288.4	13.8
FS Rome	IT	Financing of 26 light, single-cab E464 locomotives and 123 Double Deck Vivalto coaches, which are utilized in the regional traffic in various Italian regions: besides Eurofima financed also 8 more modern Alstom Jazz EMUs, which are an evolution of the Minuetto and up to the latest technology to serve the growing commuter traffic in Italy	2020	14.2	240	157	7.8	668.2	0.0	0.39	129'192	168.9	538.3	0.7	94.4	418.7	18.1
RENFE Operadora Madrid	ES	Financing of 151 fully modernized Class 447 that are mainly used for suburban and commuter services in the areas around the main Spanish cities	2020	4.0	248	151	24.6	1'428.8	0.0	0.32	276'236	389.0	1'113.5	1.6	201.8	895.3	41.6
SBB Bern	CH	Financing of 1 Stadler Kiss used in the Zürich S-Bhan and 18 Flirts running in cross country services in the area around Geneve	2020	8.0	146	19	3.7	91.8	0.0	0.29	17'756	25.8	121.5	0.2	13.0	57.5	2.8
SBB Bern	CH	Financing of 11 tilting ICN trains utilized in Intercity traffic in Switzerland along the main lines	2020	5.0	99	11	17.5	365.2	0.0	0.29	70'599	102.4	712.6	1.0	51.6	228.8	10.9
FS Rome	IT	Financing of electric locomotives and coaches operated for long-haul public service transportation around Italy, mainly as "Frecciabianca" (Intercity services up to 200 km/h).	2021	20.0	228	260	28.0	1'228.4	0.0	0.39	237'488	310.5	1'039.5	1.4	173.5	769.7	33.2

Impact Report (4/5)

Project main data			Project details						Values by pkm		Total impact data**		Impact data (per EUR 1M)***		Additional annual reduction/avoidance of air pollutants		
Borrower	Project location	Project description	Project start	Project lifetime*	Project costs	Vehicles deployed	Asset average age	Annual Passengers *km	CO_2 emissions	Energy consumption	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CH_4 emissions reduced/avoided	Annual N_2O emissions reduced/avoided	Annual estimated reduction in fuel consumption
			Year	in years	EUR millions	in number	in years	Pmkm	g/pkm	MJ/pkm	Tons	GWh	Tons/ML€	GWh/ML€	Tons	Tons	Ml Liter
SBB Bern	CH	Financing of 20 tilting ICN trains utilized in Intercity traffic in Switzerland along the main lines	2021	7.0	128	20	21.3	663.9	0.0	0.29	128'362	186.3	999.6	1.5	93.8	416.0	19.9
SBB Bern	CH	Financing of 13 Stadler Kiss, mainly utilized as S-Bhan in the great Zürich area	2021	8.9	147	13	5.3	186.1	0.0	0.29	35'973	52.2	245.1	0.4	26.3	116.6	5.6
SBB Bern	CH	Financing for 4 FLIRT EMUs utilized for suburban and regional traffic in across Switzerland (mainly around Leman Lake, canton Vaud and Zug S-Bhan)	2017	9.6	9	4	12.0	17.2	0.0	0.29	3'331	4.8	362.3	0.5	2.4	10.8	0.5
SBB Bern	CH	Financing of 2 High speed trains used in international traffic between Italy and Switzerland, in the line Zürich-Lugano-Milan	2017	10.0	35	2	7.1	65.0	0.0	0.29	12'568	18.2	358.1	0.5	9.2	40.7	1.9
SBB Bern	CH	Financing for 3 FLIRT EMUs utilized for suburban and regional traffic in across Switzerland (mainly around Leman Lake) and cross-country services around Geneve	2017	8.7	18	3	11.3	12.9	0.0	0.29	2'498	3.6	139.5	0.2	1.8	8.1	0.4
SBB Bern	CH	Financing for 29 FLIRT EMUs utilized for suburban and regional traffic services across Switzerland (mainly around Leman Lake) and cross-country services around Basel and Geneve to Germany and France	2017	9.7	144	29	12.5	124.9	0.0	0.29	24'149	35.0	167.6	0.2	17.6	78.3	3.7
SNCB Brussels	BE	Refinancing of 16 modernized coaches Class I11 utilized in Intercity services across Belgium	2020	2.9	20	16	24.0	37.1	0.0	0.32	7'167	10.1	362.0	0.5	5.2	23.2	1.1
SNCB Brussels	BE	Refinancing of 45 M6 coaches, mainly utilized in the domestic market and in some cross-country services with Luxemburg.	2018	5.1	114	45	14.5	104.3	0.0	0.32	20'158	28.4	176.3	0.2	14.7	65.3	3.0

Impact Report (5/5)

Project main data			Project details						Values by pkm		Total impact data**		Impact data (per EUR 1M)***		Additional annual reduction/avoidance of air pollutants		
Borrower	Project location	Project description	Project start	Project lifetime*	Project costs	Vehicles deployed	Asset average age	Annual Passengers *km	CO_2 emissions	Energy consumption	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CO_2 emissions reduced/avoided	Annual energy savings	Annual CH_4 emissions reduced/avoided	Annual N_2O emissions reduced/avoided	Annual estimated reduction in fuel consumption
			Year	in years	EUR millions	in number	in years	Pmkm	g/pkm	MJ/pkm	Tons	GWh	Tons/ML€	GWh/ML€	Tons	Tons	Ml Liter
SNCB Brussels	BE	Refinancing of 6 M6 coaches, mainly utilized in the domestic market and in some cross-country services with Luxemburg.	2020	14.4	16	6	14.5	13.9	0.0	0.32	2'688	3.8	168.0	0.2	2.0	8.7	0.4
SNCB Brussels	BE	Refinancing of 4 M6 coaches, mainly utilized in the domestic market and in some cross-country services with Luxemburg.	2017	10.0	6	4	12.9	9.3	0.0	0.32	1'792	2.5	280.6	0.4	1.3	5.8	0.3
SBB Bern	CH	Refinancing of 1 FLIRT EMUs utilized for suburban and regional traffic in the area of Basel and cross-country services to Germany	2020	8.0	2	1	16.2	4.3	0.0	0.29	833	1.2	435.8	0.6	0.6	2.7	0.1
		Total portfolio (since 2018)			**3'692.8**	**1'436**		**11'212.8**			**2'167'809**	**2'988.7**	**587.0**	**0.8**	**1'584**	**7'026**	**319.4**

* From the start of the financing project

** The total value of some single project may be slightly different than the same (meaning with the exact allocated proceeds) published last year; the reason is due to some updates in the number of seats of the single item of equipment, due to some small inaccuracy in the past date and some changes in the model used to estimate the average seats relevant to the Loco and the Loco- Coaches formation

*** The savings per 1 ML€ invested shows a higher value (587 Tons Co_2 per ML€ financed in 2021 vs 495 Tons/ML€ in 2020) compared to the 2021 impact report; the most impacting factors are outlined here below

a) The better accuracy in estimating the seats of a Loco-Coach formation and the more reliable sources to define the seats of some specific trains, have decreased the value by 5.2%

b) The rolling stock financed has a more favorable ""Price per Seat"" value (that means, we financed less expensive train with the same number or even more seats), which has increased the value by 8.4%

b) The weight of countries, where the average Load factor (Pmk/Seats) is higher, has become bigger, therefore increasing the value per 1 ML invested by roughly 14.4%, compared to the 2021 issuance

c) Other minor factors (differences in the Book Value calculation and mistake relevant the Area of Operation for the Loco E403) accounts for an additional 0.8% increase

8.

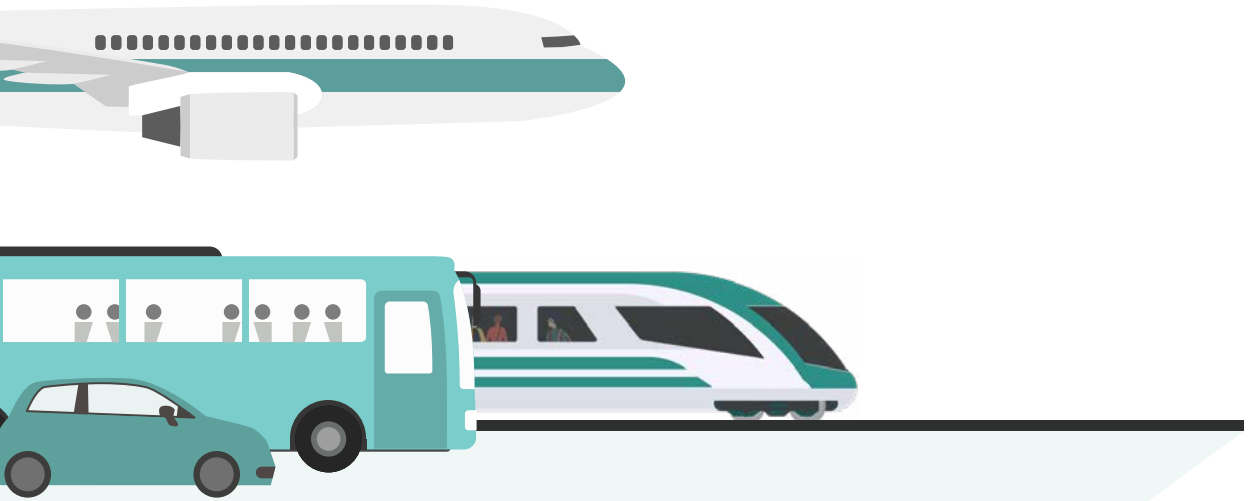
METHODOLOGY OVERVIEW

The approach followed to derive the impact indicators above is based on the comparison between:

a) the emissions and energy consumption of the green assets or projects, and

b) the emissions and energy consumption of alternative means of transportation (i.e., those that would be used, in case the rolling stock were not financed).

Therefore, the "baseline" for impact assessment purposes is the "alternative means of transportation"[9].



MAIN ASSUMPTIONS AND OTHER CONSIDERATIONS

The estimation of the impact is based on the following main assumptions:

a) The reported impact is the expected environmental impact (i.e. ex-ante), as opposed to the actual (i.e. ex-post)[10];

b) The reported impact is defined as "Avoided" (i.e., reduction compared to the scenario where the project was not financed) or "Reduced" (i.e., reduction compared to historical, actual values);

c) The benefits are annual benefits and are not estimated as a total, cumulative amount over the project lifetime (i.e., duration of the financing) and are based on the assumption that the green rolling stock runs at the normal and planned operating schedule under steady operations and all passengers would move to different means of transportation, in case such rolling stock had not been financed. Therefore, the Impact of Covid-19 has not been taken into consideration.

d) The emissions considered for the financed rolling stock are assessed based on the standards of Scope 1, as defined in the Greenhouse Gas Protocol[4], which considers only the "Tank-to-Wheel" (TtW) values (i.e., energy consumed or emissions generated only by the train). This is also in line with the EU Taxonomy[11] that considers electric rail transport as a zero-direct emission means of transport.

e) EUROFIMA commits to using the latest available parameters and keeps the right to modify the model, in order to improve the accuracy of the estimations.

A detailed methodology description is included in Annex 1 [Link].

[9] For the explanation of the methodology, the assumptions, the data sources and computations, please refer to the Annex 1 - Methodology [Link].

[10] The assessment of the impact indicators is based on assumptions, therefore the actual (ex-post) environmental impact of the projects may diverge from initial assessment and across projects. In addition, financed projects might also have other impacts than those captured in the impact assessment table.

[11] Page 329 of the EU Taxonomy Technical Report by TEG [Link].

9. FINANCED ASSETS

PROJECTS DESCRIPTION

The equipment financed by EUROFIMA through the fully allocated proceeds of its Green Bonds, represents a mix of rolling stock types for the benefit of several railway companies located in different European countries. Such equipment aims to support the sustainable growth of passenger railway traffic.

The assets are either Electrical Multiple Units (EMUs), electrical locomotives or passenger coaches (combined with electrical locomotives). The six corresponding countries (Switzerland, Luxembourg, Belgium, Spain, Italy and Denmark) and relevant state-owned Railways significantly contribute to climate change mitigation: all the trains are up to the latest technology in terms of sustainability, digitalization, and energy consumption.

Annex 2 List of financed assets (Link).

Lavaux, Switzerland - Source : SBB

SNCB, the national railway company in Belgium, which in 2019 carried around 257 million passengers, received 4% of the proceeds. The operator is also strongly focused to give a green footprint to its operational activities: it has a clear five-year sustainability plan 2017-2022, which aims at reducing the energy consumption by 5% and improving other indicators on waste, consumables, noise, water, and soil management[12].

The following rolling stock belonging to SNCB is refinanced through the Green Bonds proceeds:

- Class M6 (84 passenger cars) EUROFIMA refinanced the purchase of 84 brand new double deck coaches, which were originally financed in 2007 and 2008. At that time, the coaches were up to the latest technology in terms of comfort and digitalization. They are mainly utilized in the domestic market and in some cross-country services with Luxembourg. The coaches are utilized on electrified lines and pushed or pulled by an electrical locomotive, normally a Class 18 from Siemens, which is not part of this financing.

- Class I11 (16 passenger cars) EUROFIMA refinanced the purchase of 16 Class I11 coaches, which were originally financed in 2003 and modernized in 2012. They are equipped with HVAC and PIS and can run at a speed of 200 Km/h; their main utilization is on the domestic market, even if they are equipped also to run in cross-country service to France and Luxemburg. The coaches, manufactured by the former Bombardier, are usually pushed, or pulled by an electrical locomotive, normally a Class 13 or 18 from Siemens (not part of this financing).

[12] Sustainability action plan SNCB [Link]

[13] Sustainable development CFL [Link]

Luxembourg - Source : AdobeStock

SOCIETE NATIONALE
DES CHEMINS DE FER LUXEMBOURGEOIS

CFL, the national railway company of Luxembourg, received 1.4% of the proceeds; in 2019 it carried around 25 million passengers, with a significant 7.4% growth compared to 2018. The company is strongly committed to establish itself as a sustainable and green company, to the extent that 100% of the energy comes from renewable sources and plans to reduce further the carbon footprint across the whole company[13].

The following rolling stock belonging to CFL is financed through the Green Bonds proceeds:

- Class 2400 (7 EMUs) The equipment financed consists of 7 brand new Alstom 4 cars EMUs (Coradia family) to be delivered in 2021 and 2022. The trains are up to the latest technology in terms of sustainability features (e.g., low floor access, areas for bicycles and reading, easy travel for people with reduced mobility, dynamic PIS, WiFi and HVAC) and will be used both in Luxembourg and in cross country services in France and Belgium. According to the CFL expectations, the 334 seats per train should help to meet a growing passengers demand between 3% to 5% annually, with an additional positive environmental impact.

TRENITALIA
GRUPPO FERROVIE DELLO STATO

As the leader in the passenger rail transport sector with 88% market share, FS is committed to achieving carbon neutrality in 2050, through facilitating the shift towards more efficient and less polluting means of transport, promoting the efficient use of energy resources and the reduction of greenhouse gas emissions, implementing more efficient energy technologies, and extending the utilization of renewable sources; in 2019 FS reduced the CO_2 emissions by 1.6%[14].

Firenze, Italy - Source : AdobeStock

The following electrical rolling stock is financed through the Green Bond proceeds:

- Minuetto (6 trains) This 3-cars, low floor EMU was built in large numbers by Alstom and utilized as Sub-urban and commuter traffic in almost all regions of Italy; it has a maximum speed of 160 Km/h.

- ETR Jazz (8 trains) Based on the same Coradia Family of Minuetto, this train is the natural and more modern evolution, part of a plan to renew the regional transport and make the commuter travel better. They are low floor access EMUs, specifically designed to meet environmental and sustainability criteria; 95% of the material is recyclable and they guarantee 30% more energy savings than the previous generation. They also meet the latest requirements in terms of disability facilities (entrance, seats, toilets) and of the latest available technologies (video surveillance system, PIS, sound system, braille messages, 220 V power sockets). EUROFIMA financed both the 4-cars (3 units) and the 5-cars (5 units) version.

- E464 (246 Locomotives) E464 is a simple, low power (only 3.6 Mw) single cab locomotive, built specifically by Bombardier for the regional passenger traffic: with more 700 units, this is the largest FS fleet and one of the largest of the same kind at European level and it is utilized in all Italian regions. It is mainly coupled with mid-distance coaches and Vivalto double-deck passenger cars; based on the configuration (which coaches and how many) it can carry up to 800 seated passengers and can run at a speed of 160 Km/h.

- E403 (23 Locomotives) E403 is a powerful (5.6 Mw), multi-system locomotive, originally designed by Hitachi Rail to serve the freight traffic in Italy and across the Brenner Pass. After being simplified, it was assigned to Trenitalia, the passengers division of FS, which utilizes the loco, coupled with UIC-Z1 and IC-Gran Comfort coaches, in intercity and night services, covering mainly the line along the Adriatic coast.

- E401 (21 Locomotives) The E401 is an almost brand-new locomotive, derived from the old E402A through a deep modernization project, carried out from 2015 to 2019, which transformed it to a single-cab and upgraded the control and communication system. This loco is usually utilized in Intercity services across the main Italian cities and usually coupled with the modernized coaches UIC Z1.

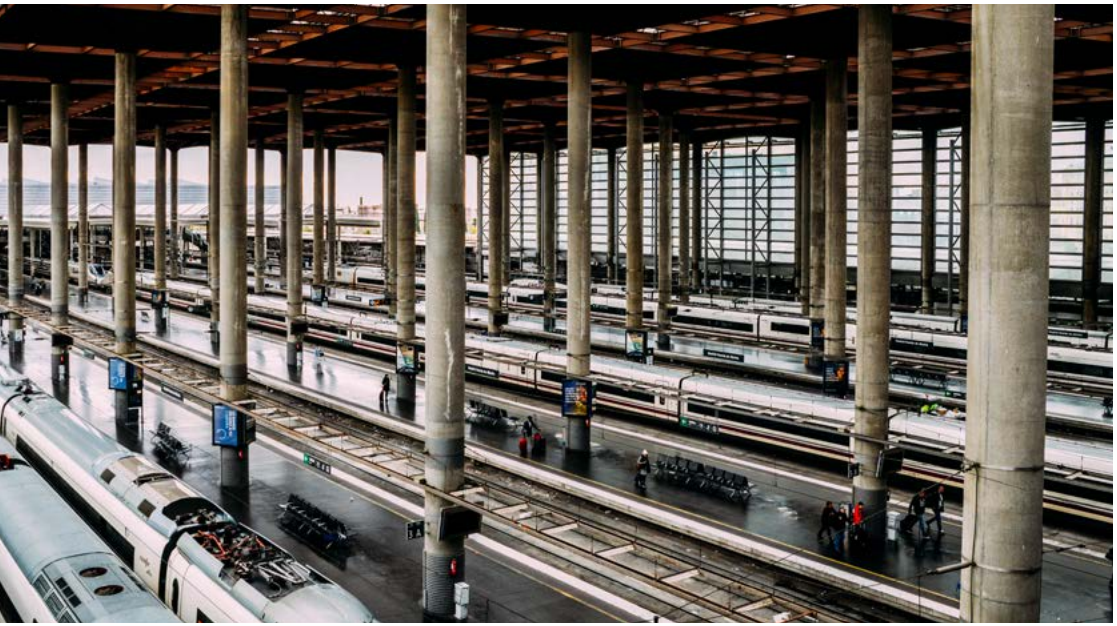
- E402 B (5 Locomotives) The E402 B is versatile (freight and passengers), powerful (5.6 MGW) multisystem locomotive, able to run also under the 25 AC kV high speed line In Italy. It is today utilized only on Intercity passengers' services across Italy, either with the brand Intercity Giorno or Frecciabianca coupled either with the modernized UIC Z1 or the Gran Comfort coaches.

- E414 (23 Locomotives) The E414 is a Mono-tension (3 kV DC) loco derived from the old E404 High speed locomotive, through a deep modernization project, which transformed it to a single-cab and upgraded the control and communication system. It is mainly utilized under the Frecciabianca services (Intercity up to 200 Km/h) coupled with the Gran Comfort coaches.

- Vivalto (248 passenger cars) Vivalto are low floor access, double deck coaches, specifically designed for the regional and commuter traffic and are widely used across the entire peninsula, always coupled with a E464 locomotive. They can make available till 126 seats, run at a speed up to 160 km/h and have the latest technology in terms of PIS, comfort and provisions for disability.

- UIC Z1 (176 passenger cars, 20 of which are driving trailer) UIC Z1 are old single deck coaches which went through a major modernization project to improve comfort and safety and be complaint with the latest standard and technology. They are mainly used under the brand Intercity Giorno, to connect the main Italian cities across the country. They can make up to 66 seats available and run at a speed up to 200 km/h.

[14] FS Sustainability [Link]



Madrid, Spain - Source : AdobeStock

renfe

With 5'000 trains running every day, more than 500 million passengers a year and about 15'000 committed employees, Renfe is working to make the train the star of mobility in Spain; it received 27% of the proceeds. Sustainability and a green footprint are at the heart of the Renfe's strategy; in 2019 the energy to power all electric vehicles (80% of the fleet) came from renewable sources. This will play an instrumental role to help achieving the goal to reduce the CO_2 emissions by more than 7 million tons, in the entire rail network on which Renfe operates, by 2030. Besides, the company is exploring fewer polluting sources of energy (LNG, Hydrogen) to replace its diesel fleet[15].

The following electrical rolling stock belonging to Renfe is financed through the Green Bond proceeds:

- Civia 463 (12 trains) Based on the Civia modular family, partly built by a consortium of CAF and Siemens and partly by Alstom, these EMUs are the 3 cars version: the trains were specifically built for the commuter traffic in several Spanish regions and are mainly used for the suburban traffic around, in and out of the main cities. The Civia train concept was created with passenger comfort and build quality in mind, and to meet the goals of reliability, frequency, punctuality, and a better provision for disabled passengers; the 3 cars version has a speed of 120 km/h and makes available 169 seats.

- Civia 464 (19 trains) This is the 4 cars version of the same Civia family with a total of 223 seats

- Civia 465 (81 trains) This is the 5 cars version of the same Civia family with a total of 277 seats

- Class 449 (27 trains) Built by CAF under a design from Renfe, the Class 449 are mainly utilized in the regional traffic across all areas of Spain, covering distances higher than the Civia family and used from time to time also for Intercity services: they are a modern 5 cars formation, with a maximum speed of 160 km/h and 263 seats. Like the Civia family, their design had the goal to improve comfort and reliability and a better provision for disabled passengers.

- S-104 (20 trains) This 4 motorized cars intercity train belongs to the first version of the Alstom Pendolino family, even though the version used by Renfe is not tilting: it can reach a speed of 250 Km/h and has a capacity of 236 seats. Unlike most of the Spanish trains, it has the international gauge and not the Iberic one. Their utilization is mainly as mid-distance regional train, fulfilling a Public Service Obligation in various Spanish regions; however, it has also a limited utilization as Intercity.

- S-114 (13 trains) This High-Speed train is the upgraded and better version of the S-104 and was built by a consortium of Alstom and CAF, based on the latest Pendolino family; even though the trains are similar from outside, the technology inside is different in order to be aligned with Spanish requirements in terms of voltage and signalling. The specific ID numbers financed by EUROFIMA are mainly utilized to fulfil the growing regional ridership in Catalonia, connecting Barcelona-Tarragona-Lerida Pirineois; they have also a limited usage as High-speed trains in the line Madrid-Valladolid.

- Class 447 (151 trains) The class 447 is an old 3-cars EMUs built by CAF and Siemens, which has been completely refurbished and upgraded to allow people with limited mobility to use the trains (low floor access, spaces for wheelchairs, universal toilets), to increase comfort (completely new interiors) and to enhance customers experience (modern Passenger Information System installation). They are utilized to support the growing rail traffic demand in the suburban areas of Spain's main cities, as commuting services.

[15] Sustainable development Renfe (Link)

SBB CFF FFS

SBB, which received around 38% of the proceeds, is the largest provider of sustainable mobility solutions in Switzerland: the company is strongly committed to delivering a sustainable and green strategy along the entire value chain – from procurement to production, use and disposal. In 2019 SBB reduced the carbon emissions by 6.4% and their trains already drew 90% of their energy from hydropower: they plan to have the entire rail network powered by renewables by 2025 and to achieve climate neutrality by 2030[16].

Walenstadt, Switzerland - Source : SBB CFF FFS

The following electrical rolling stock is financed through the Green Bond proceeds:

- Rabe 523 (34 trains) Based on the Flirt family of Stadler, this is a 4-cars regional train, which is operated by SBB on the regional connections in Canton Vaud (mainly around Lausanne) and on the central part of Switzerland. Even if this train was originally developed 15 years ago, this version meets the latest standard in terms of comfort and sustainability: It can travel at the speed of 160 km/h and carry 180 passengers and support the growth of rail traffic in Switzerland.

- Rabe 521 (9 trains) This train is the same as the Rabe 523, as far as comfort, capacity and mechanical features are concerned: its Signalling feature makes it suitable to run also in Germany. It is therefore operated by SBB in the regional services around Basel and in cross-country services, connecting Switzerland with the southern part of Baden-Württemberg.

- Rabe 522 (32 trains) This train is the same as the Rabe 523, as far as comfort, capacity and mechanical features are concerned: its Multisystem and Signalling features make it suitable to run also in France. It is therefore operated by SBB in domestic lines around the lake Leman, canton Vaud and for cross country operation with France.

- Rabe 514 (15 trains) Based on the Desiro family from Siemens, this is a 4 cars double-decker regional train operated by SBB as S-Bahn in the Zürich area. It has 378 seats and can run at a speed of 140 km/h.

- Rabe 511 (63 trains) Based on the Stadler KISS family, it is the evolution of the Rabe 514; a double-decker, both in the 6 cars and 4 cars version that can carry up to 535 sitting passengers and around 800 standing. The train is new and equipped with all the features (e.g., PIS, HVAC, low entrance floor, area for bicycles) that make it sustainable and comfortable to attract the increased ridership in the greater Zurich area. The 4 cars version is mainly used as regional traffic in the area around the lake Leman.

- Rabe 526 (14 trains) This is a peculiar and articulated EMU, based on the GTW family, with a power module between cars; EUROFIMA financed both the versions with 2 and 3 cars. The train is a modern low floor access EMU, operated by Thurbo (a JV owned by SBB and Canton Thurgau) to serve the regional traffic in the north-eastern part of Switzerland, mainly in the cantons St Gallen, Thurgau and Zurich, and has up to 162 seats.

- Rabe 503 (2 trains) This is a high-speed train built on the Pendolino platform developed by Alstom; they are used in the international traffic in the line Milan-Zurich under an agreement between FS and SBB. With a speed of 250 Km/h, multi-system, and multi-signalling features, latest PIS and a tilting mechanism, the train has a level of technology and comfort second to none.

- RABDe 500 (31 trains) This is a high-speed, tilting train, which can run at the speed of 200 km/h train; it is utilized in Intercity services across Switzerland along the main lines and makes up to 431 seats available.

[16] Sustainability strategy SBB [Link]

DSB, which received around 2% of the proceeds, is the main rail company in Denmark, with more than 7.400 employees; DSB carries around 195 ML passengers every year.

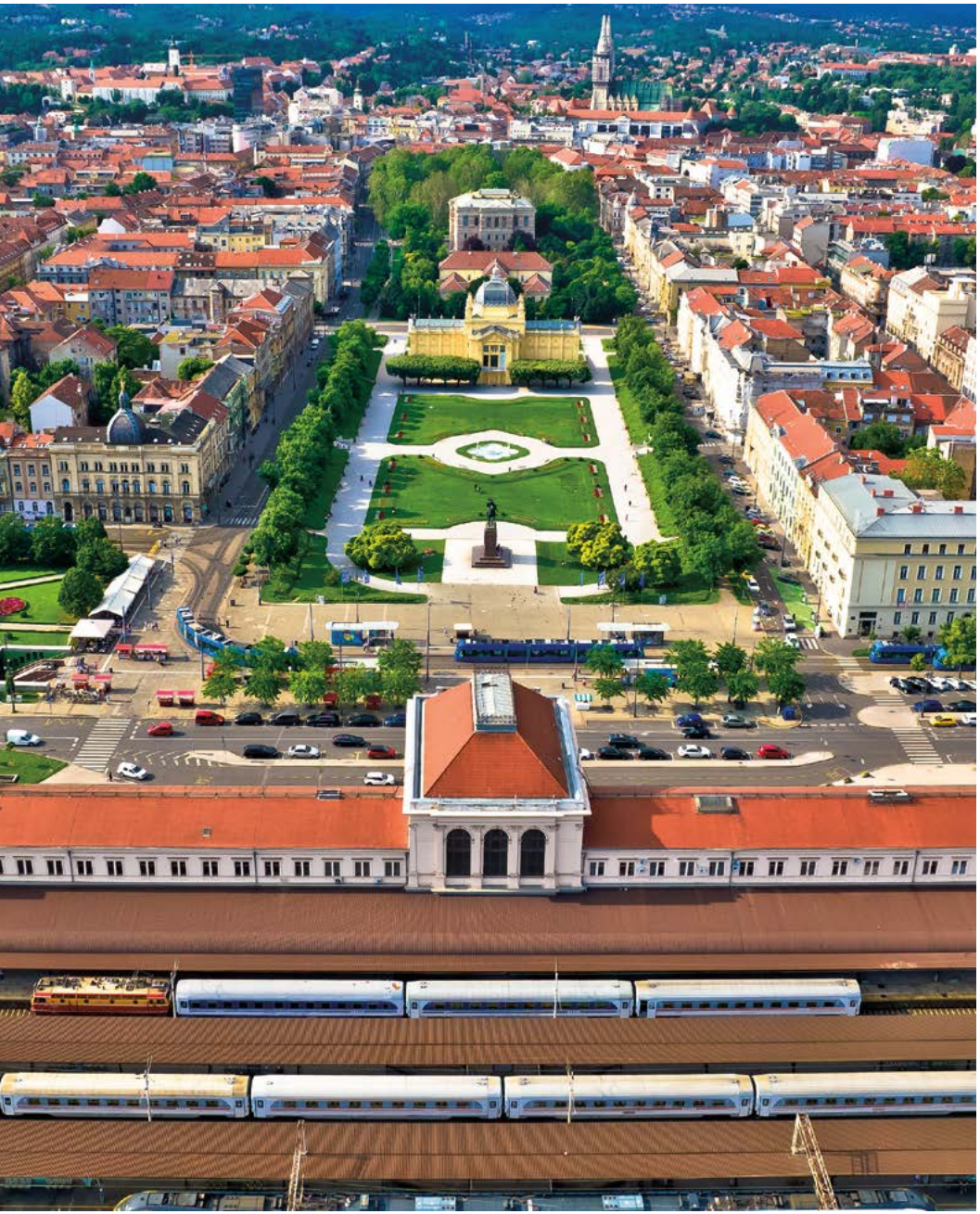
DSB has specified ambitious goals to make Denmark greener with reduced congestion on the roads. They have planned, by 2030, to be CO_2 neutral (all energy comes from renewable sources), to reduce the energy consumption by 50% and to have at least 90% of waste to be reused[17].

The following electrical rolling stock is financed through the Green Bond proceeds:

- Vectron AC DDK (44 Locomotives) This is the version of the Siemens Vectron platform (6.4 MW of power and 200 km/h speed) authorized in Denmark and Germany. The loco will be utilized, during the duration of the financing contract, in the regional and domestic traffic in the main Island of Seeland, coupled with Bombardier double deck coaches (not part of our financing).

Copenhagen, Denmark - Source : AdobeStock

[17] Sustainability strategy DSB [Link]



Zagreb Central Station, Croatia - Source : AdobeStock

10.

DO NO SIGNIFICANT HARM

The railway operators, recipient of the financing, commit to keep the financed items of equipment in good conditions for the entire life cycle, carrying out the proper maintenance activities according to the maintenance plan suggested by the manufacturer and approved by the National/European Rail Safety Agency, as prerequisite to be authorized to operate them.

The dates of the latest and the next main revisions, as communicated by the recipients of the financing for each green item of equipment are properly added to the Report (see Annex 2, list of financed assets) [(Link)].

11.

GOVERNANCE

11.1 SUSTAINABLITY COMMITTEE

In March 2021, EUROFIMA established a Sustainability Committee composed of representatives across all units. Besides coordinating cross-units activities related to sustainability, the Sustainability Committee is responsible for project evaluation according to the Green Bond Framework and to recommend projects to the Management Committee composed of the CEO and the CFO. Moreover, the committee oversees the management of proceeds process and ensures best practices in terms of alignment of the framework with EU standards and ICMA principles for Green Bonds. It also develops and ensures a risk framework for green assets.

The Management Committee attests the allocation of the Green Bond proceeds on a yearly basis and until the maturity of the Green Bond. It also reviews and approves the Allocation Report as well as the Impact Report, on an annual basis or more often, as required. The Board of Directors is notified of the Management Committee approval after disbursement.

11.2 INTERNAL STAKEHOLDERS

The process of Green Bond issuance, project selection, loan disbursement, proceeds allocation and related reporting cuts across several functions: Capital Markets, Middle Office, Treasury & Asset Management, and Information Technology. The guidelines are set by the Sustainability Committee, which ensures that impact and allocation reporting are in line with EUROFIMA GBF and other market standards and best practices.

Middle Office with the Rolling Stock Manager is responsible for the collateral selection (i.e., rolling stock) that forms the asset pool of Eligible Assets, as defined by EUROFIMA GBF. It is also responsible for the green net proceeds allocation, the development of the impact methodology and corresponding impact measurement.

Treasury & Asset Management ensures that any balance of Green Bond proceeds not yet allocated to eligible Green Assets is held in accordance with EUROFIMA's treasury policy, until such funds are disbursed.

The Capital Markets and Treasury & Asset Management units are responsible for the conclusion of loans with the railways and specifying the collateral requirements, in line with Green Bonds issuance activity.

Information Technology is responsible for the tools for collateral management (rolling stock register) as well as for EUROFIMA accounting, reporting and asset management system that tracks bond issuances, proceeds investment, loan disbursements and related collateral.

11.3 DATA & OTHER INFORMATION

The Railways companies are important partners for EUROFIMA both in terms of push and pull of the sustainability policy. The data and information in this report is either from publicly available sources or provided by the railways on a best effort basis.

EUROFIMA maintains a register of Eligible Assets up-to-date at any time, through its collateral management system, where the eligibility criteria are set up. EUROFIMA engages with its railway clients to receive rolling stock collateral in line with the GBF over the life of the allocated Green Bond proceeds. Nevertheless, it is at the railways' discretion, whether to provide EUROFIMA with impact data or other related information by specific green rolling stock item.

Neuenburgersee, Switzerland - Source : SBB

CONTACTS

For further information about EUROFIMA Green Bonds or if you have any questions regarding this report or other sustainability-related queries, please contact:

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