

A low-angle photograph of tall, slender trees with dense green foliage, looking up towards the sky. The trees are arranged in a way that creates a sense of height and depth.

2nd ESDN Young Civil Servants Workshop

Bringing Sustainable Development and the SDGs further in Public Administrations: Empowering Young Civil Servants

Keynote Presentation

The Luxembourg Sovereign Sustainability Bond



The Luxembourg Sovereign Sustainability Bond

Sep 2020: Luxembourg issued the **first European Sovereign Sustainability Bond** under its Sustainability Bond Framework

First **AAA-rated** country to issue a Sustainability Bond

The **EUR 1.5 billion** bond with a 12-year maturity (re-)finances projects with **positive environmental** and/or **social** impacts

80 different projects in **7 different sectors**





Framework & Bond Issuance Process

Dec
2018

Coalition agreement and government program foresee the potential issuance of a Sustainability Bond

Start of preparation work following formal authorisation through 2020 Budget law and draft of Sustainability Bond Framework

Dec
2019

Sep
2020

Publication of Sustainability Bond Framework and Second Party Opinion

Issuance of Luxembourg's inaugural 12-year Sustainability Bond at benchmark size

Sep
2020

Sep
2021

Publication of 1st allocation and impact report

Publication of 2nd allocation and impact report

Sep
2022

Sep
2023

Publication of 3rd and final allocation and impact report



The Luxembourg Sustainability Bond at a Glance

Rationale for establishing a Sustainability Bond (Framework)

- ✦ Luxembourg is committed to sustainability and pursues a clear and robust strategy for the implementation of the Paris Agreement & the achievement of the SDGs.
 - ✦ With our Framework - a first for a AAA-rated Sovereign -, Luxembourg aimed to reinforce this commitment.
 - ✦ We consider sustainable bonds as key financing instruments to support our efforts and ambitions.
 - ✦ This Framework follows best market practices.
 - ✦ Sustainability
 - ✦ Issued a positive Second Party Opinion on the alignment of this Framework with the ICMA principles
 - ✦ Assessed the alignment with the EU Taxonomy for 23 green activities - a 1st for the SPO provider
- highlighting the ambitious and pioneering approach of Luxembourg.

Focus on contemplated transactions

- ✦ The transactions (re-)finance Green and Social expenditures
- ✦ Key Features of the Sustainability Bond:

Issuer	Grand Duchy of Luxembourg
Nominal Amount	EUR 1.5 bn
Issue Date	14/09/2020
Maturity Date	14/09/2032
Coupon	0%
Final book	> EUR 12.5 bn
Listing	Luxembourg Stock Exchange (LuxSE)
SPO	Sustainability
Type	Sustainability Bonds RegS Bearer, Senior, Unsecured
Ratings	Aaa/AAA/AAA (all stable) (Moody's/S&P/Fitch)
Use of Proceeds	It is the Issuer's intention to apply an amount equal to the net proceeds of the Issue to finance and/or refinance eligible expenditures falling within Eligible Green and Social Categories , as described under the Sustainability Bond Framework of the Issuer



Overview of Luxembourg's Sustainability Bond Framework

A Framework following best market practices...

- ✦ Luxembourg's Sustainability Framework:
 - In line with the **ICMA Green Bond Principles 2018, Social Bond Principles 2020, and the Sustainability Bond Guidelines 2018**
 - Designed to comply with the draft **EU Green Bond Standard (EU GBS)**, when relevant and feasible
 - Complies with the recommendation of the Technical Expert Group final report on the **EU Taxonomy for the eligibility criteria of green categories, on a best-effort basis**



... with a structure adhering to the following key pillars

- 1 Use of Proceeds**
(Re-)Financing eligible expenditures falling within the **green and social categories**
- 2 Evaluation and selection process**
Carried out by Luxembourg's **Sustainability Bond Committee**, who meets at least once a year, in accordance with the eligibility criteria
- 3 Management of Proceeds**
Bond by bond approach, with **proceeds fully allocated at the earliest convenience** (within two years in any case)
- 4 Reporting**
Allocation and impact reports to be **produced at least annually until full allocation**
- 5 External Review**
Verification by an external reviewer of the proceeds allocation - Second Party Opinion from Sustainalytics on the Framework



Overview of Impact and Allocation Reports (2021 – 2023)

LUXEMBOURG SUSTAINABILITY BOND REPORT

September 2021



1st Report published in 2021,
covering the years 2018 – 2020

Luxembourg Sustainability Bond Report

September

2022

2nd Report published in 2022,
covering the year 2021

Luxembourg Sustainability Bond Report

September





2023

3rd Report published in 2023,
covering the year 2022



Overview of the Eligible Expenditures





Overview of the Identified Green Expenditures

Category and main SDG contribution	Description	Total expenditures identified	Number of projects	Examples of impact metrics
Low carbon transportation 	<ul style="list-style-type: none"> Public transport Infrastructure for low carbon transport 	EUR 671.9m	9	<ul style="list-style-type: none"> Number of low carbon vehicles deployed by type of transport (e.g number of trains/trams) Number of users served Other relevant indicators depending on the considered projects
Protection of the Environment  	<ul style="list-style-type: none"> Waste management Protection and restoration of healthy ecosystems and their services 	EUR 6.1m	1	<ul style="list-style-type: none"> Volume of waste collected and disposed or treated (tons) Surface of protected or restored areas Other relevant indicators depending on the considered projects
Water and Wastewater Management 	<ul style="list-style-type: none"> Support the development of water and wastewater management systems allowing to significantly improve energy efficiency and/or water quality 	EUR 105.9m	8	<ul style="list-style-type: none"> Volume of water collected and disposed or treated (m3) Number of users served Other relevant indicators depending on the considered projects
As at September 2023		EUR 784m	18	



Overview of the Eligible Expenditures

Overview of the Identified Social Expenditures

Category and main SDG contribution	Description	Total expenditures identified	Number of projects	Examples of impact metrics
Access to Essential Services – Education 	Provide access to essential educational infrastructure and services for all by: <ul style="list-style-type: none"> • Extending educational capacities • Improving the quality of the existing educational infrastructure and equipment 	EUR 214.8m	10	<ul style="list-style-type: none"> • Number of education infrastructures benefitting from the eligible expenditures, including a breakdown by type of infrastructures (schools, universities, ...) • Capacity/ additional capacity (in number of students)
Access to Essential Services – Healthcare 	Provide access to essential healthcare infrastructure and services for all by: <ul style="list-style-type: none"> • Extending healthcare capacities • Improving the quality of the existing healthcare facilities 	EUR 149.5m	15	<ul style="list-style-type: none"> • Number of healthcare infrastructures benefitting from the eligible expenditures, including a breakdown by location • Capacity/ additional capacity (in number of beds and/or patients)
Access to Essential Services – Social Inclusion 	Provide access to essential services for population groups at risk of social exclusion by: <ul style="list-style-type: none"> • Providing access to essential infrastructure and services to vulnerable population • Providing financial assistance to vulnerable population 	EUR 153.5m	15	<ul style="list-style-type: none"> • Number of social inclusion infrastructures benefitting from the eligible expenditures, including a breakdown by type of infrastructures • Capacity/ additional capacity (in number of beneficiaries)
Affordable Housing 	Provide access to affordable housing to vulnerable population by: <ul style="list-style-type: none"> • Extending the social and affordable housing supply • Improving the quality of the existing social and affordable housing facilities 	EUR 198.5m	22	<ul style="list-style-type: none"> • Number of dwellings • When available, additional information may be provided regarding the energy performance of eligible buildings
As at September 2023		EUR 716.3m	62	



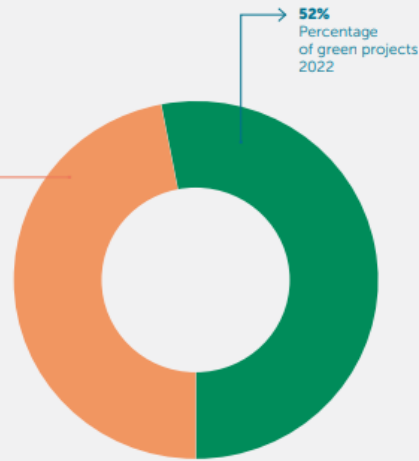
Categories and SDGs Overview



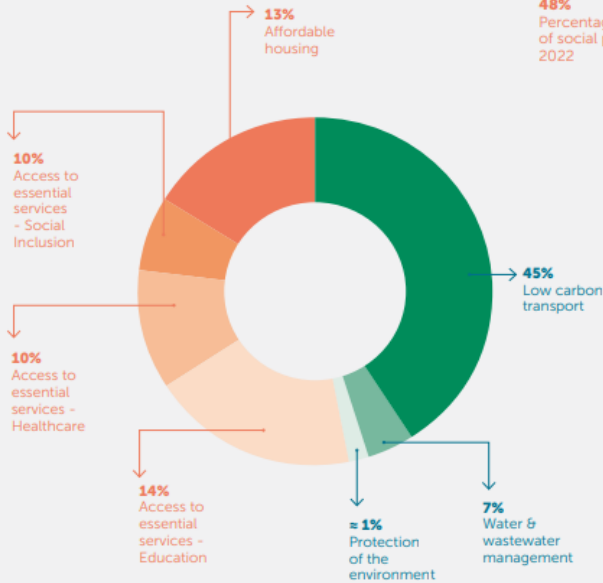


2022 Full Allocation Overview

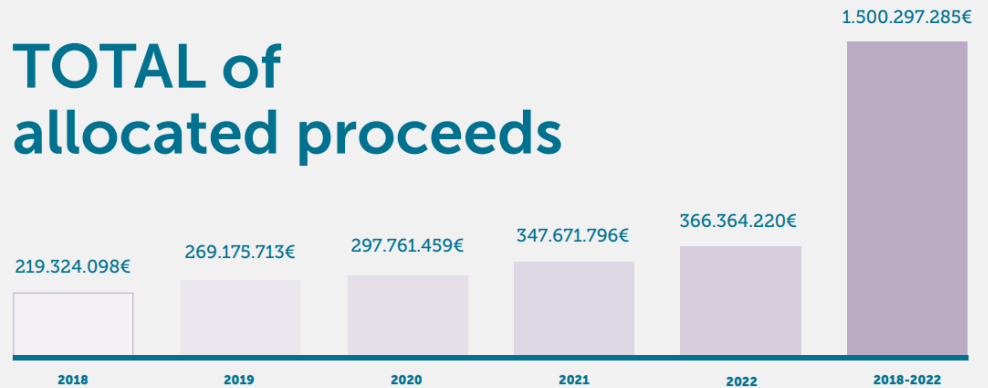
Categories 2018-2022



Expenditures by category 2018-2022



TOTAL of allocated proceeds





Detailed KPIs / Impact Indicators

Name	Detailed indicator information	Budget year	Indicators from LSB Framework Sustainable use of water, pollution prevention & control						
			WW1: Volume of water treated following EU and national requirements				WW2: Total number of users served		
Project name	Indicator	Max. capacity [m3/year]	Capacity increase [%]	Annual treatment [m3/year]	Urban wastewater Total phosphorus elimination [%] <i>EU threshold 80%</i>	Urban wastewater Total nitrogen elimination [%] <i>EU threshold 70%</i>	Max. Annual capacity drinking water: [x] users waste water: [p.e.]	Additional users served, capacity increase [p.e.]	drinking water: [#] users wastewater: [p.e.]

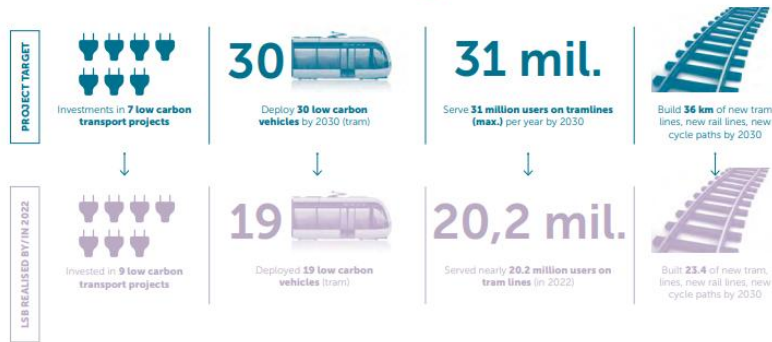
Extension and modernization of the wastewater treatment plant - SIDEN in Blesbruck	2018	18 140 500	178%	not operational	not operational		130 000	50 000	not operational
	2019	18 140 500	178%	not operational	not operational		130 000	50 000	not operational
	2020	18 140 500	178%	6 243 782	88%	81%	130 000	50 000	55 000
	2021	18 140 500	178%	6 665 130	88%	81%	130 000	50 000	56 000
	2022	18 140 500	178%	5 836 560	88%	81%	130 000	50 000	61 800

Name	Detailed indicator	Budget year	Indicators from LSB Framework			Indicators from LSB Framework				
			Ind. 1 # of institutions benefiting from the investments	Ind. 2 # of total initial capacity	Ind. 3 Expected maximum capacity	Ind. 4 # of people having applied for or benefiting from intl. protection benefiting from the investments (# of hosted population at a given time)	Ind. 5 # of women	Ind. 6 # of men	Ind. 7 # of children	Ind. 8 # of elderly
Project name	Data sources Information on monitoring	Absolute/annual impact metric	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs	Lux. Ministry of Foreign Affairs
			Absolute	Absolute	Absolute	Annual	Annual	Annual	Annual	Annual

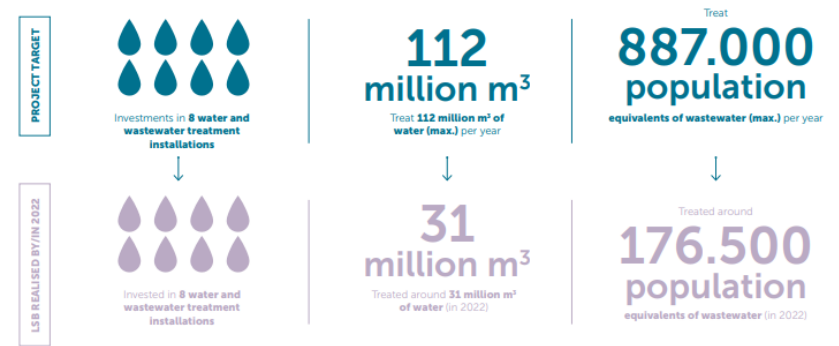
Reception centers for people having applied for or benefiting from international protection - in Sanem / Mühlenbach / Bettembourg / Bridel / Capellen / Rodange / Luxembourg City I & II / Weilersbach	Entries in orange: expected	2018	7	0	489	153	51	102	46	2
		2019	7	0	489	261	104	157	87	0
	Entries in black: realised	2020	7	0	489	317	122	195	100	0
		2021	7	0	611	487	179	308	146	4
		2022	9	0	1017	833	272	561	250	8



Low Carbon Transport



Water and Wastewater Treatment



Affordable Housing

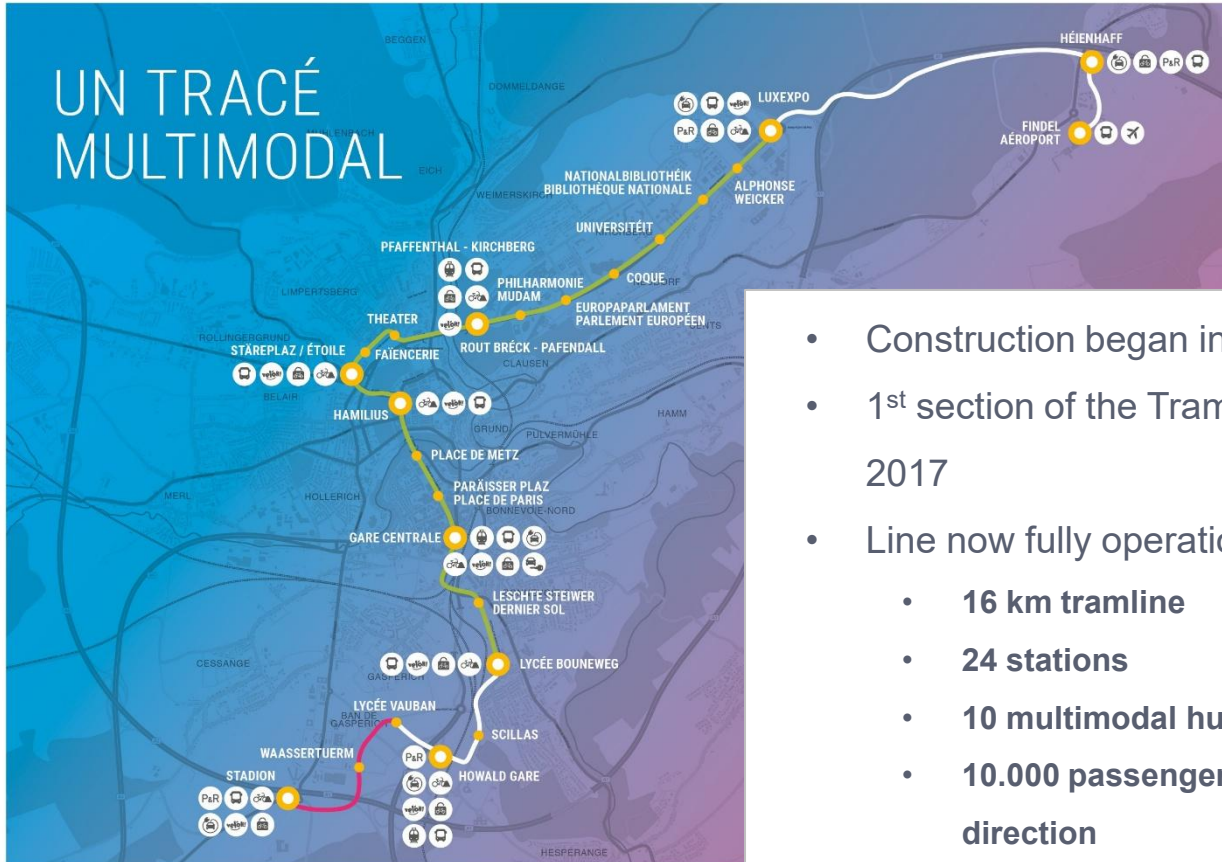


Healthcare





Case Study – The Tram in Luxembourg



- Construction began in **2015**
- 1st section of the Tram inaugurated in Dec 2017
- Line now fully operational:
 - **16 km tramline**
 - **24 stations**
 - **10 multimodal hubs**
 - **10.000 passengers/hour in each direction**
 - Links the Luxembourg Airport with the Kirchberg business hub, the centre of Luxembourg City, and other adjacent cities



Perks and Challenges of Issuing a Sovereign Sustainability Bond

Sustainable sovereign bond process:

- **Laying the groundwork** behind a potential green and social **budgeting process**
- Created a **'sustainable/green' network** in the line ministries
- Helped with a **first assessment of the green and social expenditures** (without a systematic budgetary approach)

Challenges:

- **New and complicated**
 - ❖ Ministries have a lot of other important work to do
 - ❖ It is a **whole new language to learn** and to explain (sustainability, green, social, expected/realised impacts, KPIs, taxonomy, ...)
- **Time intensive**
 - ❖ Traditional sovereign bond – a few months
 - ❖ Sustainable sovereign bond – **multiple years (including reports)**



Thank you!





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