



# GREEN OLO

Safe, Liquid & Green  
by Nature



# Agenda

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- 1. Executive summary**
- 2. The Kingdom of Belgium**
- 3. Strategic positioning of the Green OLO**
- 4. Structuring elements of the Green OLO**



# EXECUTIVE SUMMARY

# Executive Summary

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## The Kingdom of Belgium's commitment to green finance

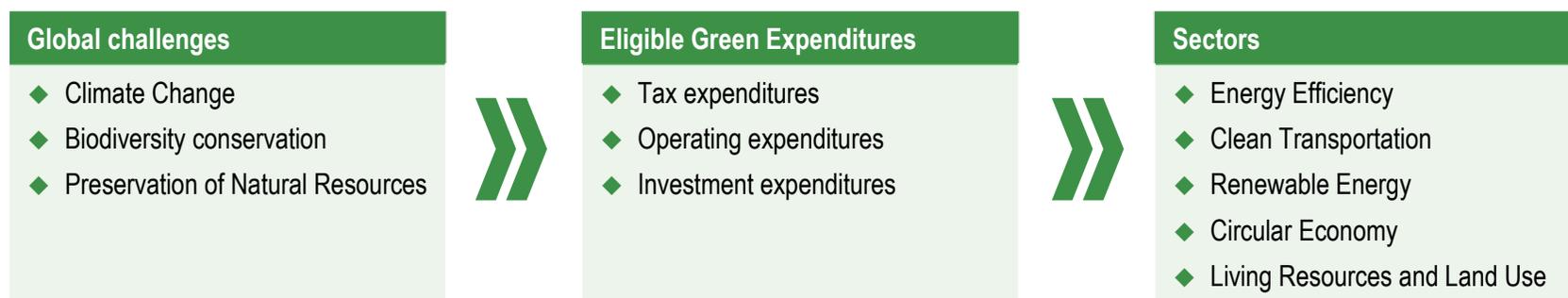
- ◆ The Kingdom of Belgium is committed to the transition to a more environmentally friendly economy in line, among other things, with the Paris Agreement. The Kingdom of Belgium is taking part in the development of ambitious international environmental policies and aims at being a significant contributor to climate change mitigation and environmental protection in Europe.
- ◆ The Kingdom of Belgium believes green finance, and Green Bonds in particular, will be a key tool in the financing of the environmental transition. It intends to commit to actively participate in the development of this market segment.

## The inaugural Green OLO, a landmark transaction in Belgium's debt capital markets

- ◆ Issuing the Green OLO will serve to catalyze the development of the Belgian Green Bond Market. A Green OLO will contribute to increase the environmental awareness of the general public in Belgium, as well as capital markets participants, such as issuers, investors, underwriters, service providers and market observers.
- ◆ It also aims to be a ground-breaking and innovative transaction providing leadership to the Green Bond market and to contribute to improve the current best practices of this market.

## Belgium's Green OLO Framework

The Green OLO Framework has been designed according to best market practice and is compliant with the Green Bond Principles. Eligible Green Expenditures to which proceeds will be allocated will contribute to address 3 global environmental challenges through the financing of 5 economic sectors.



- ◆ The Green OLO will feature the same financial characteristics as a conventional OLO, in particular with regards to size and liquidity. The Green OLO will be fully integrated into the OLO curve.

# Belgium's Rationale for Issuing a Green OLO

- ◆ Global environmental challenges **require massive investments** which will need to be partially financed by **Debt Capital Markets (DCM)**. The **Green Bond market** and its recent development has demonstrated its ability to:
  - ◆ **Dedicate an increasing part of global debt capital markets to finance environmental projects,**
  - ◆ **Mobilise private investment and increase investment volumes dedicated to the energy and ecological transition,**
  - ◆ **Mobilise a new financial ecosystem,** from Green Bond issuers to Socially Responsible Investors launching dedicated Green Bond funds. The Green Bond market is an efficient tool to increase the **financial sector's awareness of the urgent need for environmental action.**
- ◆ Belgium, whilst a significant issuer in the European DCM and particularly in the Euro-denominated market, does not have the same share of the growing Green Bond market. Belgian bond issuers and institutional investors are under-represented in this new and fast-growing market segment.

	Items	World	Europe	Belgium	Belgium market share in Europe
Issuers	Debt Capital Markets <sup>1</sup> (outstanding amounts – (in € equ.as of December 2017)	€ 86,350bn	€ 21,543bn	€ 573bn	2.7%
	Green Bond Market <sup>2</sup> (outstanding amounts –(in € equ.as of December 2017)	€ 263bn	€ 105bn	€ 0.1bn	0.1%
Investors	Numbers of investors within UNPRI signatories <sup>3</sup>	1,870	1,053	9	0.8%

- ◆ The Kingdom's foray into the Green Bond market is an opportunity to:
  - ◆ demonstrate Belgium's strong commitment to addressing the global environmental challenges,
  - ◆ avail of this market's untapped growth potential to raise funds to support its climate and environmental policies, and
  - ◆ take a leading role in developing the Green Bond market globally and in particular in Belgium. The Green OLO could be a **turning point for the Belgian Green Bond market** and pave the way for potential public and private issuers, by providing large and liquid benchmark, and by stimulating the Belgian investor demand (Belgian retail investors eligible to invest).

<sup>1</sup>. Bloomberg, <sup>2</sup>. Bloomberg, excluding Social/Sustainable Bonds, <sup>3</sup>. UNPRI



# THE KINGDOM OF BELGIUM

- ◆ Highlights of the Belgian Economy & Politics
- ◆ Belgian Public Finances
- ◆ Federal Debt Management

# Highlights Belgian Economy & Politics

## Belgian Economy

- ◆ Belgium is a stable AA-rated country benefiting from a wealthy, productive and open economy. Its GDP per capita is 18% higher than the EU average.
- ◆ Belgium has one of the highest net international investment positions (51.2% of GDP) of the EU and the net financial wealth (€ 1,068bn) of its households amounts to 254% of GDP.
- ◆ Belgium obtains high scores in world rankings of competitiveness, absence of corruption and income equality. Its Gini coefficient ranks 5<sup>th</sup> worldwide.
- ◆ Belgium has achieved one of the highest economic growth rates in the Eurozone since the financial crisis.
- ◆ Its debt ratio decreased for the third consecutive year, and is forecasted to drop further.

## Belgian Politics

- ◆ The 2014 elections have led to a federal “Centre-Right” government on October 11, 2014.
- ◆ It has implemented structural reforms (pensions, taxation, competitiveness).
- ◆ The next federal & regional (synchronized) elections would occur in May 2019.

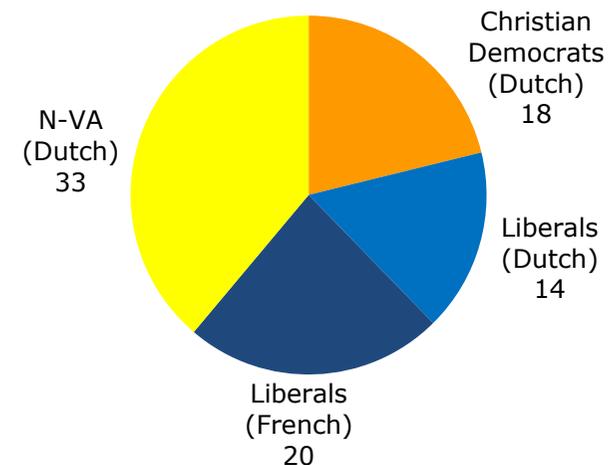
### 2017 Main Facts

- ◆ GDP Growth : +1.7%
- ◆ GDP/capita (2016) : € 37,500
- ◆ Unemployment : 6.7 %
- ◆ Employment (y/y): +1.5 %
- ◆ Government Budget : -1.13%
- ◆ Debt Ratio : 103.0%
- ◆ Rating : AA/Aa3/AA-
- ◆ Households net wealth : 254% GDP

### 2018 Forecasts (NBB)

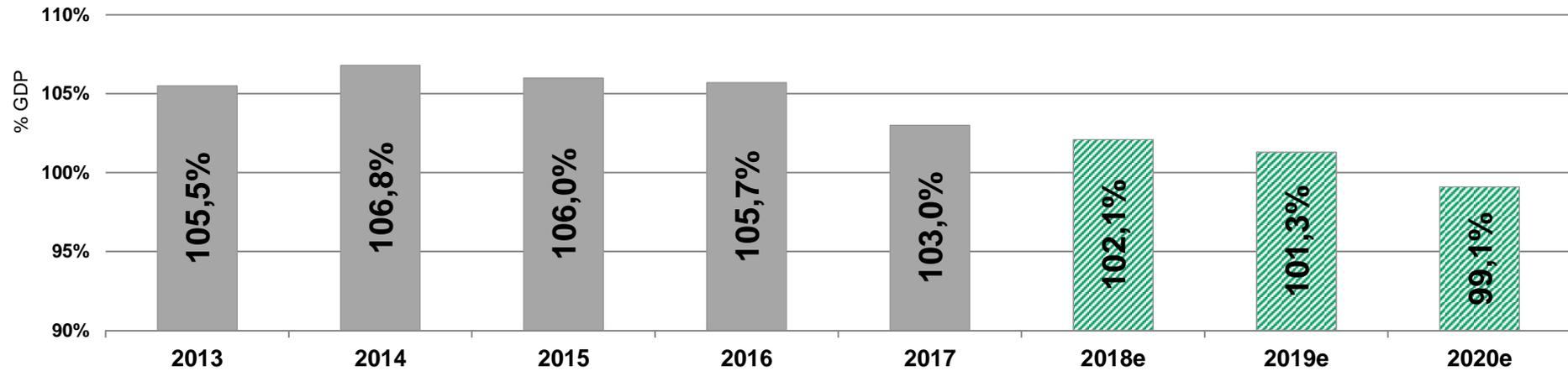
- ◆ GDP Growth : +1.7%
- ◆ Government Budget : -1.1%
- ◆ Debt Ratio : 102.1%

## Government seats in parliament: 85 / 150

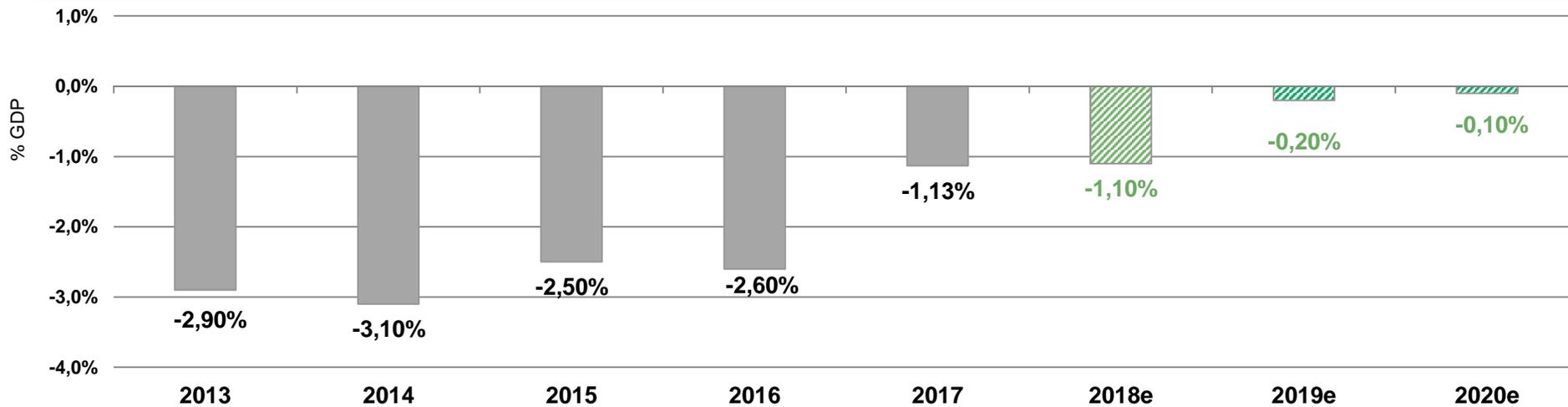


# Belgian Public Finances

## Belgium's debt ratio is again decreasing



## The same is true for its deficit



**Source:** 2013-2016 : National Bank of Belgium    2017: Government estimate as of Jan. 31, 2018    2018e (debt): NBB    2018e (deficit): 2018 Government budget  
2019e-2020e : Stability Program 2017-2020

# Federal Debt Management

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Outstanding federal debt on December 31st , 2017 → € 385.67 billion

**OLOs**

**€ 329.81bn**

**Treasury Certificates**

**€ 25.60bn**

**EMTN, SSD**

**€ 15.71bn**

Risk profile of the debt portfolio on December 31st, 2017

**Average life**

**9.29 years**

**Duration**

**8.25 years**

**Implicit Yield**

**2.30 %**

◆ Refinancing Risk 12m / 60m

17.59 % / 41.76 %

◆ Refixing Risk 12m / 60m

17.98 % / 42.16 %

Planned issuance in 2018: **€ 34.25 billion** (possibly impacted by sales of participations)

**10Y benchmark**

**€ 5.00bn**

**Issued January**

**Remaining OLOs: € 26.00bn**

**Green  
Benchmark**

**Taps via  
auctions**

**Other:**

**€ 3.25 billion**

**EMTN, SSD...**



# 3

## STRATEGIC POSITIONING OF THE GREEN OLO

- ◆ Global environmental challenges
- ◆ Determining Green sectors
- ◆ Organisation of Belgium's environmental policies
- ◆ Key actions of the Federal State
- ◆ Belgium's environmental strategies

# Global Environmental Challenges

◆ The following **global environmental challenges** are at the heart of the environmental policies of the Kingdom of Belgium.

## ◆ Climate Change

- ◆ Total global GHG emissions have continuously risen since 1990 and reached around 51.9 GtCO<sub>2</sub>e in 2016<sup>1</sup>.
- ◆ Current commitments (Paris pledges) would still result in a temperature rise of about 3°C by 2100.
- ◆ The number of unique and already threatened systems, and of risks of extreme weather events will be higher with additional warming.

## ◆ Biodiversity Conservation

- ◆ In the course of the last 50 years, biodiversity losses occurred more rapidly than during all previous periods of human history; Without new policies, 1 in 10 animals and plants could be extinct by 2050.
- ◆ Threats to biodiversity are manifold: land-use change (e.g. agriculture, forestry, infrastructure development), fragmentation of natural habitats, invasion of alien species, overexploitation and overconsumption (e.g. fishing); pollution (e.g. fertilizers, pesticide...), and climate change.

## ◆ Preservation of Natural Resources

- ◆ The unsustainable use of resources has triggered critical scarcities and caused climate change and widespread environmental degradation.
- ◆ In the EU alone, around 600 million tonnes of waste materials are lost, which could be recycled or reused
- ◆ Around 3.7 million premature deaths are attributed annually to outdoor air pollution

<sup>1</sup>. Minister of the Environment, UNEP Gap report (2017), UNFCCC, IPCC

<sup>2</sup>. NDC: Nationally Determined Contributions

# Determining Green Sectors to Address Global Environmental Challenges

- ◆ The following five sectors have been identified by the Kingdom of Belgium as those that significantly contribute to tackle global environmental challenges.

## Targets by Global Environmental Challenges

### ◆ Climate Change

- ◆ 80 to 95% of greenhouse gas emission reduction by 2050 compared to 1990; 35% reduction in 2030 compared to 2005 (non-ETS)
- ◆ Enhance resilience to climate change

### ◆ Biodiversity

- ◆ Target of 17% of continental and 10% of marine protected areas by 2020
- ◆ Halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020

### ◆ Natural Resources

- ◆ EU max. exposure to outdoor PM 2.5 of 18 µg/m<sup>3</sup> by 2020
- ◆ EU target of recycling 65% of municipal waste and 75% of packaging waste by 2030

## Targets by Green Sectors

### ◆ Clean Transportation

- ◆ Reduction of at least 80% of transport-related CO<sub>2</sub> emissions
- ◆ Promotion of clean transportation (public mass transportation, electric vehicles, bicycles, etc.) and decrease of transport demand (passenger & freight through decoupling of growth, etc.)

### ◆ Energy Efficiency

- ◆ Scenarios show a required reduction of 87-100% of real estate-related CO<sub>2</sub> emissions in Belgium by 2050 and a renovation rate of 2,9%/year
- ◆ EU Directive: renovation rate of 3%/year of public buildings

### ◆ Renewable Energy

- ◆ Federal parliament resolution to move towards 100% renewable energy in Belgium
- ◆ EU renewable energy target of at least 27% of final energy consumption in the EU as a whole by 2030

### ◆ Circular Economy

#### ◆ Including Waste and Water Management

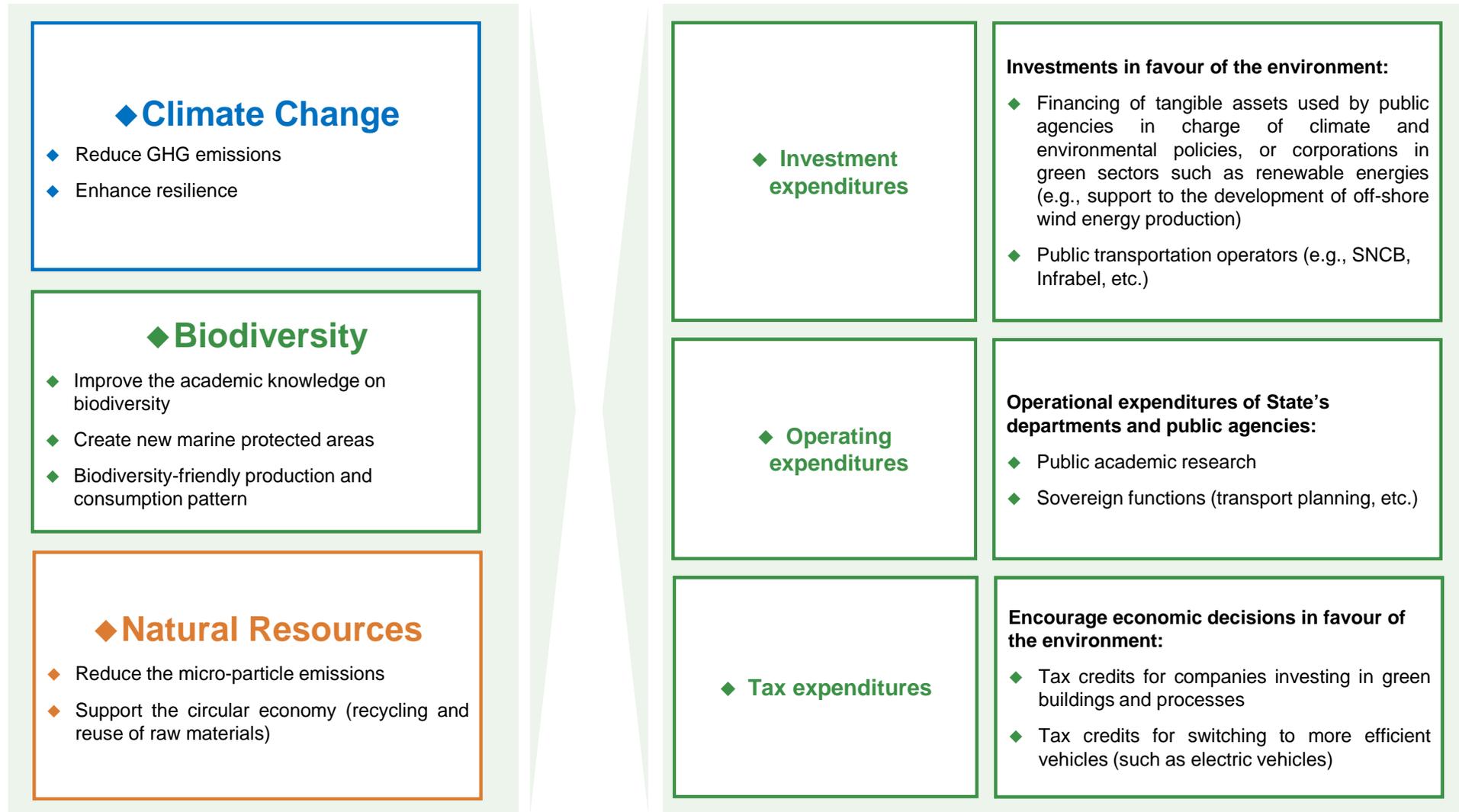
- ◆ Target of recycling municipal waste of 50% by 2020 and of 65% by 2030
- ◆ Target of landfill reduction of 10% by 2030

### ◆ Living Resources and Land Use

- ◆ Designation of 17% of continental and 10% of marine protected areas
- ◆ Development & implementation of action plans a) to guarantee the conservation or rehabilitation of most endangered species, and b) develop pollution monitoring and control systems

# Key Actions of the Federal State

- ◆ Global Environmental Challenges are addressed by different types of expenditures deployed to meet Belgium's Climate and Environmental Policies.



# Organisation of Belgium's Environmental Policies

- Due to the federal structure of the Kingdom of Belgium, the competencies are split between the regions and the federal Government. The federal and regional administrations exercise complementary environmental responsibilities. On environmental issues, Federal competencies support regional policies and scale-up their impact.

	Clean Transport	Energy Efficiency	Renewable Energy	Circular Economy	Living Resources and Land Use
Federal State	Infrastructure investments (national railways, federal buildings)		Supply and storage infrastructures	Product standards (Eco-design, Eco-labelling)	Investments for conservation of marine environment and for protection of endangered wild species due to international trade
	Rail operator financing	Product standards (Eco-design, Eco-labelling)	Off-shore wind financing	Studies and support for pilot projects	
	Fiscal policies				
Regions	<b>ECMM<sup>1</sup></b>	<b>CONCERE/ENOVER<sup>2</sup>, CCPIE/CCIM<sup>3</sup>, CNC/NKC<sup>4</sup></b>			
	Waterways, port infrastructure	Investments in public building retrofitting	Investments in renewable energy production	Investments for production and distribution of water	Investments for protection of air and soil, and protection and conservation of nature,
	Public transport and school transport	Support to households investments in energy efficiency	Distribution and location transmission of electricity		
	Taxation on vehicles		Electricity distribution prices	Infrastructure for waste management and recycling	Support to organic agriculture
	Air pollution management and control				

<sup>1</sup> Executive Committee of the Ministers in charge of Mobility

<sup>2</sup> Concertation sur l'énergie Etat-Régions / Energieoverleg tussen de staat en de gewesten

<sup>3</sup> Comité de Concertation sur la Politique Internationale de l'Environnement / Coördinatiecomité Internationaal Milieubeleid

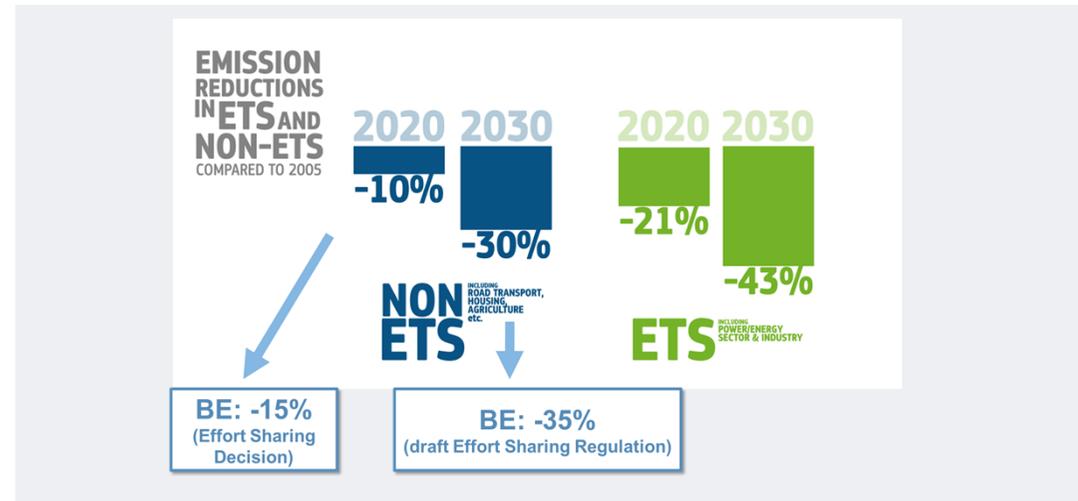
<sup>4</sup> Commission Nationale Climat / Nationale Klimaatcommissie

# Climate Change: Key Commitments and Challenges in Belgium

## Belgium's target within the EU: (2020 & 2030)

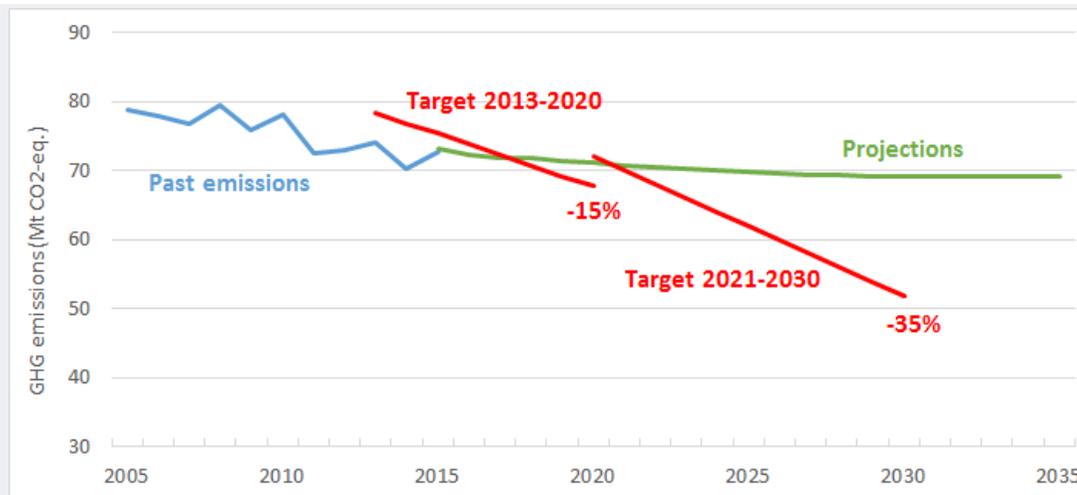
The Kingdom of Belgium is firmly committed to comply with its international (Paris Agreement) and EU obligations:

- ◆ Put in place long-term low emissions strategies by 2020,
- ◆ Reduce its emissions (non-ETS\*) 35% by 2030.



## GHG emission trends (non-ETS\*):

\*Emissions Trading System



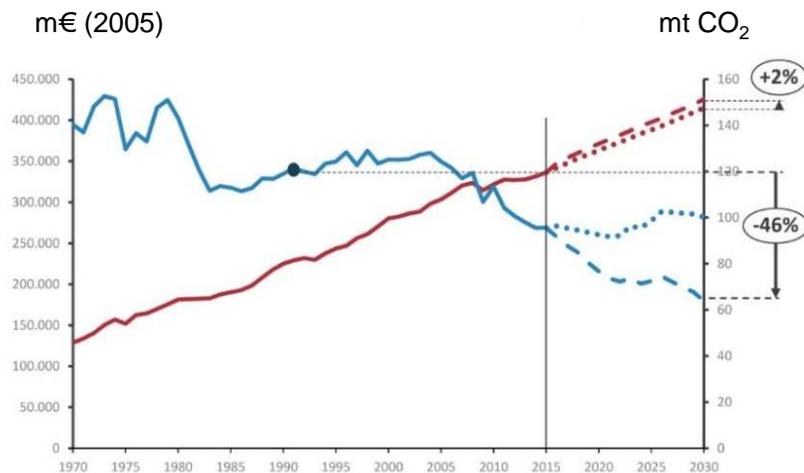
# Belgium's Strategy for Climate Change

## Main Belgian plans for climate & energy

- ◆ National Climate Plan (+ National burden sharing agreement)
- ◆ National Adaptation Plan (+ federal contribution)
- ◆ Energy efficiency action plan
- ◆ National renewable energy action plan
- ◆ Interfederal Energy pact (forthcoming)
- ◆ National Climate and Energy plan 2030 (forthcoming)
- ◆ Long term low emission strategy (forthcoming)

## Macroeconomic impact

*Macroeconomic impact of a balanced low-carbon scenario on Belgium's GDP and GHG emissions*



Source: Federal Plan Bureau (2016): Macroeconomic impacts of a low-carbon transition in Belgium

## Key Belgian actions for climate & energy

- ◆ Promotion of offshore wind electricity production
- ◆ Investments related to electricity transmission grids, including interconnections
- ◆ Supports schemes for wind, solar, biomass energy production
- ◆ Investment in railway infrastructure (GEN/RER<sup>1</sup>)
- ◆ Expenditures related to the Federal State's intervention in annual season tickets for public transport of private sector employees
- ◆ Ecodesign and F-gas norms
- ◆ Development of Belgian climate adaptation scenarios
- ◆ Fiscal expenditure to support energy efficiency

1. Gewestelijk ExpresNet/Réseau Express Régional

**Recent roadmap and scenario analyses show that reducing Belgian GHG emissions by 80 to 95% by 2050 is technically feasible and gives the opportunity to significantly boost economic activity and job creation through new investments in energy savings**

# Belgium's Strategy for Biodiversity Conservation

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*Belgium implements different conventions or legislations on biodiversity preservation such as:*

- ◆ *CBD strategic plan 2011-2020 and its 20 Aichi targets (+ EU biodiversity strategy to 2020),*
- ◆ *Nagoya Protocol on Access and Benefit-Sharing (genetic resources) (+ ABS EU regulation),*
- ◆ *Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (+ EU regulations),*
- ◆ *EU Regulation on the prevention and management of the introduction and spread of invasive alien species (IAS),*
- ◆ *Natura 2000 (Birds and habitats directives).*

## **Main Belgian plans for biodiversity conservation**

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- ◆ National strategy for Biodiversity 2020
- ◆ Federal Plan for the Sectoral Integration of Biodiversity in 4 key sectors (transport, economy, dev. cooperation and research)
- ◆ Belgian law and strategy for Marine Environment (+ Master Plan North Sea)
- ◆ BRAIN-be (Belgian Research Action through Interdisciplinary Networks)
- ◆ Belgian laws on Nature Conservation and on Invasive Alien Species (cf. Measure #5 of National Adaptation Plan 2017-2020)
- ◆ Belgian law on the protection of Antarctica
- ◆ Belgian laws on Product Norms, Biocides and Chemicals products (biodiversity preservation is not the first goal)

## **Key Belgian actions for biodiversity conservation**

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- ◆ Federal campaigns related to the national strategy for biodiversity 2020: #BeBiodiversity Strategy:
  - ◆ awareness-raising and education campaign for consumers
  - ◆ Business and Biodiversity tools: Action-decision tree for biodiversity in 4 domains (land, infrastructure, process, purchases) (web platform); Evaluation of the impact on biodiversity of the use a terrestrial organic raw material;
- ◆ Protection of marine species (incl. in Antarctica)
- ◆ Action Plan against Wildlife Trafficking (incl. for better enforcement of related legislation)
- ◆ Belgian Biodiversity Platform (information and communications hub on biodiversity science and research)

# Belgium's Strategy for Preserving Natural Resources

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***Belgian circular economy and air pollution policies aim at:***

- ◆ ***Preserving resources while at the same time create opportunities to boost the economy, contribute to innovation, new business models, growth and jobs creation,***
- ◆ ***Maintaining the value of products and materials as long as possible in the economic system (closing the loop) through: (1) a longer use of products, (2) reuse (of products and components); (3) higher and better recycling,***
- ◆ ***Reduce by 50% the negative health impacts of air pollution,***
- ◆ ***Comply with the EU directive on air pollution (NEC Directive (2016/2284) and the Directive on the limitation of emissions from medium combustion plants (2016/2284).***

## **Main Belgian plans for air pollution and circular economy**

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- ◆ Federal roadmap on circular economy : 21 measures to promote a circular economy in Belgium, focusing on product policy (product design), consumer protection, promotion of new business models (as the product-service system models)
- ◆ Regional plans : Programme régional bruxellois en Economie Circulaire, Vlaanderen Circulair, Plan wallon déchets/ressources
- ◆ Federal contribution to mandatory emission reduction plans at EU level (NEC Directive) through cooperation agreements with the Belgian regions (forthcoming)

## **Key Belgian actions for air pollution and circular economy**

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- ◆ Promote sustainable consumption and production modes (including waste reduction and recycling) (e.g. tax expenditures for reusable packaging)
- ◆ Studies and support of pilot projects towards new business models like service system business models
- ◆ Studies and pilot projects to develop resource efficiency criteria in order to promote reparability, refurbishment, reuse of components in products, recycling,...
- ◆ Product norms aimed at improving air quality (e.g. for biomass as heating fuel and heating units, more strictly regulated than required by the EU)
- ◆ Different actions in agriculture, transport decarbonization, buildings etc. (synergies with climate and energy policies)



# STRUCTURING ELEMENTS OF THE GREEN OLO

- ◆ Green OLO Framework
- ◆ Use of Proceeds
- ◆ Process for Project Selection and Management
- ◆ Management of Proceeds
- ◆ Reporting
- ◆ Second Opinion

# The Green OLO: Safe, Liquid and Green by Nature

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*Safe, Liquid and Green*

- ◆ *Same financial characteristics as a conventional OLO:*
  - ◆ *Same liquidity,*
  - ◆ *Same size,*
  - ◆ *Same price*
- ◆ *Dedicated to the ecological transition*
- ◆ *Supporting the Belgium's environmental and climate policies*
- ◆ *Compliant with the Green Bond Principles*
- ◆ *Following the best standards of the Green Bond market*

# Green OLO Framework: in line with the Green Bond Principles 2017

<p><b>1. Use of Proceeds</b></p>	<ul style="list-style-type: none"> <li>◆ Eligible Green Expenditures related to a large number of assets, in line with the State's role, and targeting different beneficiaries: households, companies, local authorities and public agencies.</li> <li>◆ Five Green sectors have been defined: Clean Transportation; Energy Efficiency; Renewable Energy; Circular Economy; and Living Resources and Land Use.</li> <li>◆ Investment expenditures, operating expenditures and tax expenditures are eligible.</li> </ul>
<p><b>2. Process for Project Evaluation and Selection</b></p>	<ul style="list-style-type: none"> <li>◆ The selection of Eligible Green Expenditures is annually managed by an Inter-Ministerial Working Group.</li> <li>◆ Selection has been done in order to be representative of Federal State's missions and in line with the Federal budget.</li> <li>◆ Each FPS (Federal Public Services) is responsible for identifying Eligible Green Expenditures</li> <li>◆ An overlay in the selection process aimed at excluding expenditures mainly related to selected sectors (fossil fuel, armaments, nuclear, large scale hydroelectric developments).</li> <li>◆ Green Expenditures that other Belgian agencies may plan to use themselves for issuing their own Green Bonds are excluded.</li> </ul>
<p><b>3. Management of Proceeds</b></p>	<ul style="list-style-type: none"> <li>◆ Tracking the allocation of the bond proceeds will be done by the Belgian Debt Agency.</li> <li>◆ Eligible Green Expenditures from the previous year and the current year are included*.</li> </ul>
<p><b>4. Reporting</b></p>	<ul style="list-style-type: none"> <li>◆ The Kingdom of Belgium is committed to provide two levels of reporting:             <ul style="list-style-type: none"> <li>◆ The management and allocation of bond proceeds, reviewed by an independent audit firm.</li> <li>◆ The assessment of environmental impact of Eligible Green Expenditures.</li> </ul> </li> </ul>
<p><b>External review</b></p>	<ul style="list-style-type: none"> <li>◆ Second Party Opinion on the Green OLO Framework provided ex-ante by Sustainalytics.</li> </ul>

*\*Federal State's Portfolio of Green Holdings (FPIM/SFPI) and BIO-Invest investments, with investment commitment taken no more than 2 years prior the issuance (or tap) date, are also included.*

# Use of Proceeds: Presentation of Green Sectors

Green Sectors	Scope	General Examples of Expenditures	Expected Environmental Benefits	Environmental Challenges
Clean Transportation	<ul style="list-style-type: none"> <li>Promote transport services and modal shift towards public transportation, soft mobility; support multimodal solutions</li> <li>Support the development of electric vehicles and related infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Investment and operating expenditures in rail-related infrastructures</li> <li>Tax credits in favour of electric vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Reduce /avoid GHG emissions related to transportation (varying time horizons)</li> </ul>	
Energy Efficiency	<ul style="list-style-type: none"> <li>Invest in green buildings and improve their energy efficiency (i.e. roof / wall / floor insulation, new boiler, new heat pump, solar heater)</li> <li>Improve energy efficiency of private sector production facilities, incl. industries</li> <li>Promote demand-side management measures</li> </ul>	<ul style="list-style-type: none"> <li>Tax credit for corporates investing in energy efficiency</li> <li>Investments in Sustainable Real Estate Funds with Green certification</li> </ul>	<ul style="list-style-type: none"> <li>Reduce /avoid GHG emissions related to real estate (varying time horizons)</li> </ul>	
Renewable Energy	<ul style="list-style-type: none"> <li>Develop and support / deploy renewable energies technologies and related investments (wind off-shore, on-shore, solar, hydropower*, including supply and storage infrastructures)</li> </ul>	<ul style="list-style-type: none"> <li>Federal state's support to renewable energy infrastructures</li> </ul>	<ul style="list-style-type: none"> <li>Reduce GHG emission related to energy (varying time horizons)</li> </ul>	
Circular Economy	<ul style="list-style-type: none"> <li>Promote sustainable consumption and production modes (waste reduction and recycling)</li> </ul>	<ul style="list-style-type: none"> <li>Tax expenditures for reusable packaging</li> </ul>	<ul style="list-style-type: none"> <li>Reduce waste production</li> <li>Reduce raw material use</li> <li>Develop environmentally friendlier products</li> </ul>	
Living Resources and Land Use	<ul style="list-style-type: none"> <li>Improve the resilience to climate change and other natural disasters, including in developing countries</li> <li>Preserve the biodiversity and enhance environment protection</li> <li>Develop pollution monitoring and control systems</li> <li>Mitigate non-CO<sub>2</sub> emissions in agriculture</li> </ul>	<ul style="list-style-type: none"> <li>Operating expenditures of academic research programs in biodiversity</li> <li>Investment expenditures for soil rehabilitation</li> <li>Investments in sustainable programs for climate change mitigation and adaptation in developing countries</li> </ul>	<ul style="list-style-type: none"> <li>Reduce current and future impact of climate change</li> <li>Increase natural areas' quality and size</li> <li>Reduce GHG emissions</li> </ul>	

\*excluding large hydro projects defined as >25MW

CC: Climate change  
 B: Biodiversity  
 NR: Natural Resources

# Use of Proceeds: Examples of Eligible Green Expenditures

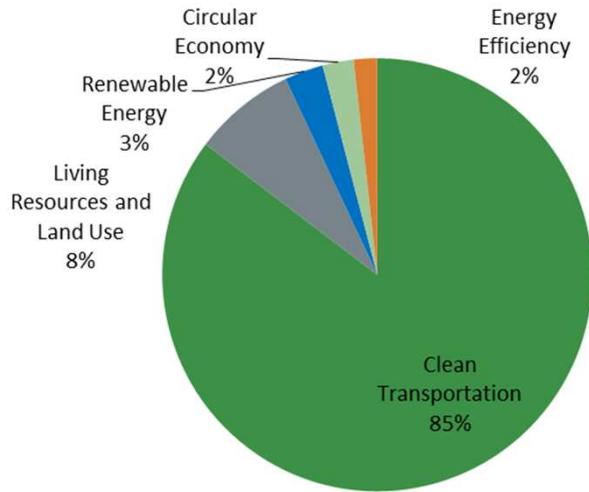
Green Sectors	Type of budget	Type of Expenditures	Belgian Federal Expenditures	Environmental Challenges	Estimated annual amounts for 2017
Clean Transportation	FPS 33 - Mobility & transportation	<ul style="list-style-type: none"> <li>Operating expenditures</li> <li>Investment expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Contribution for domestic passenger transport by ordinary service trains for the benefit of SNCB</li> <li>Railway investment</li> </ul>	CC NR	€2,200m*
	FPS 18 - Finance	<ul style="list-style-type: none"> <li>Tax expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Subsidies for mass transportation</li> <li>Expenditure on electric vehicles (and for the installation of an electric vehicle recharging station)</li> </ul>	CC	€125m
Energy Efficiency	FPS 18 - Finance	<ul style="list-style-type: none"> <li>Tax expenditures</li> </ul>	<ul style="list-style-type: none"> <li>State support for corporates investing in energy savers and inciting the re-use of recipient</li> </ul>	CC	€40m
	SFPI / FPIM <sup>1</sup>	<ul style="list-style-type: none"> <li>Investment expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Investment in Fidentia II</li> </ul>	CC	€9m
Renewable Energy	FPS 32 – Economy, SMEs, Middle Classes and Energy	<ul style="list-style-type: none"> <li>Investment expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Offshore wind feed-in</li> </ul>	CC	€80m
Circular Economy	FPS 18 - Finance	<ul style="list-style-type: none"> <li>Tax expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Release of individual containers for reusable beverages - reduced packaging fees</li> </ul>	NR	€65m
Living Resources and Land Use	FPS 46 – Scientific Policy	<ul style="list-style-type: none"> <li>Investment expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Various investment in research projects</li> </ul>	B CC	€45m
	FPS 14 – Foreign Affairs, Foreign Trade and Development Cooperation	<ul style="list-style-type: none"> <li>Investment expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Green Climate Funds</li> <li>Investment in the Belgian Investment Company for Developing countries (BIO)</li> </ul>	B CC	€155m
	SFPI / FPIM <sup>1</sup>	<ul style="list-style-type: none"> <li>Investment expenditures</li> </ul>	<ul style="list-style-type: none"> <li>Investment in Ginkgo II</li> </ul>	NR	€11m
<b>Total</b>					<b>€2,730m</b>

<sup>1</sup> Société Fédérale de Participations et d'Investissement / Federale Participatie- en Investeringsmaatschappij

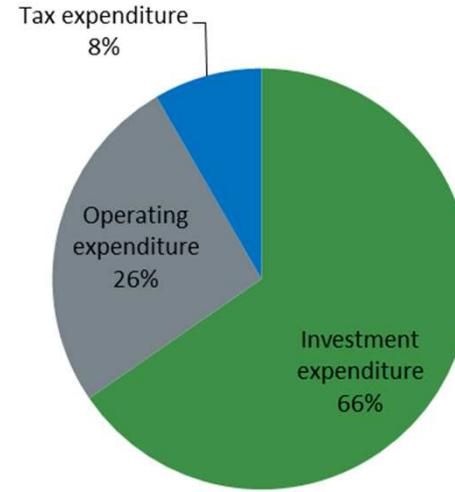
\*details are provided in the following slides

# Breakdown of Available Eligible Green Expenditures

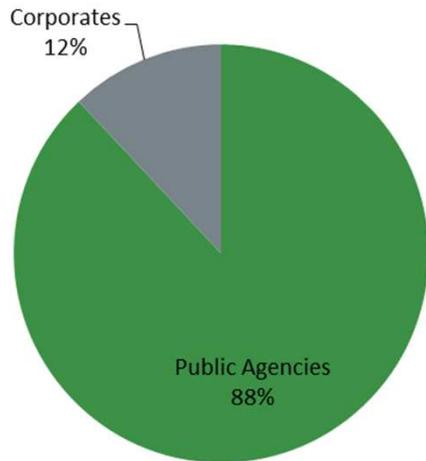
By sector



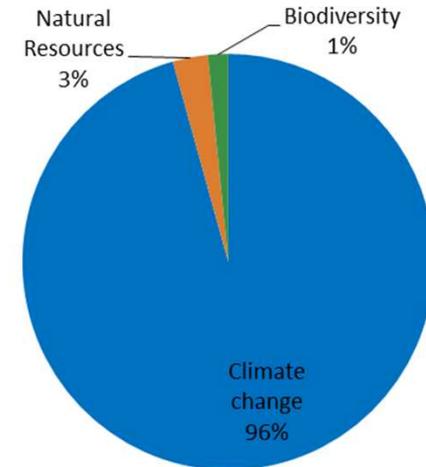
By type of expenditures



By type of operators

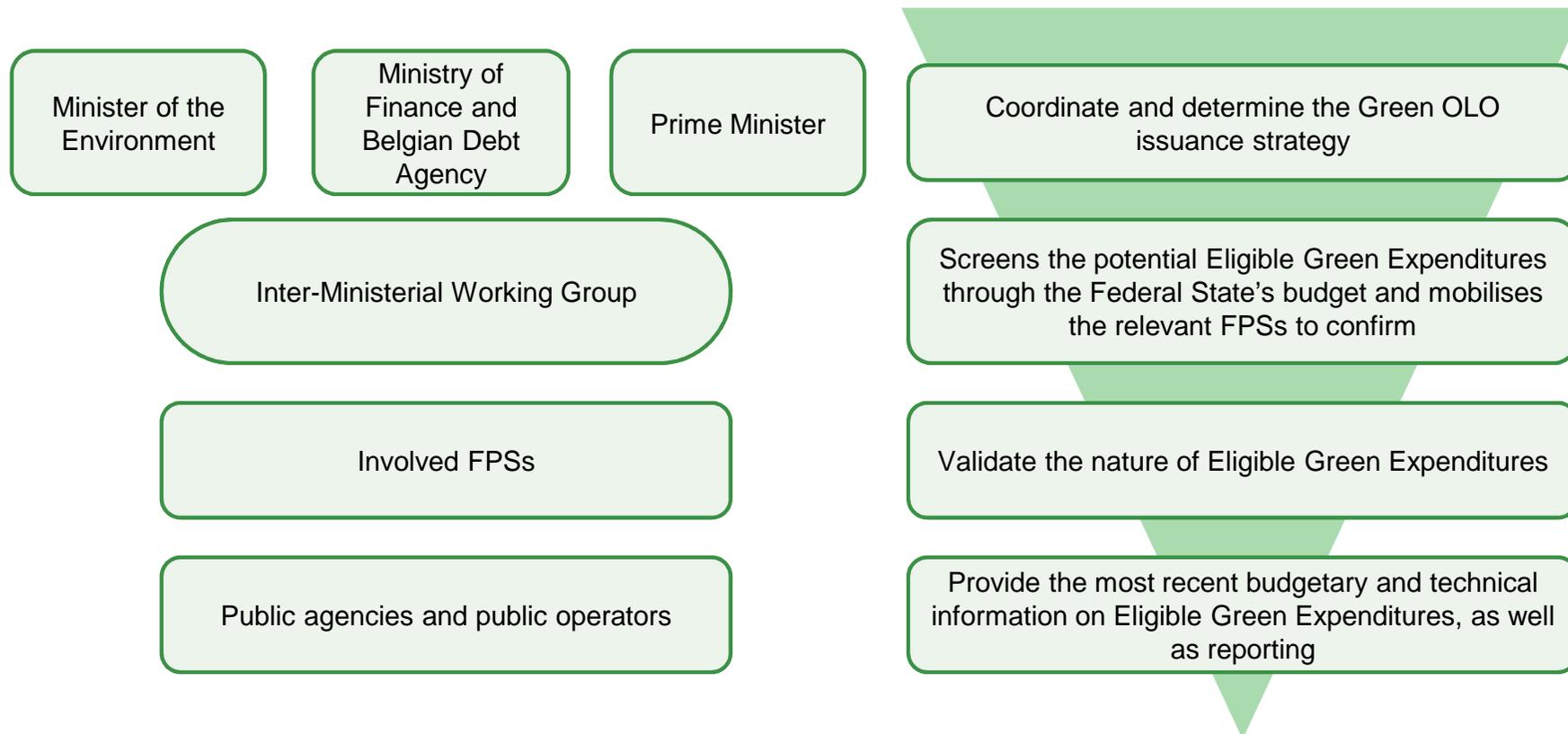


By type of challenges



# Process for Project Evaluation and Selection

- ◆ The selection of Eligible Green Expenditures is annually managed by an Inter-Ministerial Working Group, coordinated by the Ministry of Finance and the Belgian Debt Agency, the Minister of the Environment, and the Prime Minister.
- ◆ Each FPS (Federal Public Service) holds the responsibility for identifying and reporting on Eligible Green Expenditures within its programmes. Each FPS leverages on existing budgetary processes and relies on its services as well as public agencies and public operators.



# Management of Proceeds

- ◆ Eligible Green Expenditures include:
  - ◆ **Recent expenditures:** Eligible Green Expenditures from Federal State's budget disbursed in the year preceding the date of issuance (or tap).
  - ◆ **Current expenditures:** Eligible Green Expenditures from the Federal State's budget disbursed in the same year as the date of issuance (or tap).
- ◆ Only expenditures net of EU grants, loans, or other revenues earmarked for specific purposes are eligible.
- ◆ **Approach for the management of proceeds:**
  - ◆ Manage and allocate the proceeds of any Green OLO, on a notional basis
  - ◆ Inclusion of Recent and Current expenditures to accommodate potential variations of Federal State's budget year-on-year
  - ◆ Tracking will be done by the Belgian Debt Agency. It will ensure that the allocation of proceeds will not allow for flagging of same budget allocation twice.



<sup>1</sup>. Société Fédérale de Participations et d'Investissement / Federale Participatie- en Investeringsmaatschappij

\*Based on estimated amounts

# Reporting

- ◆ The Kingdom of Belgium is committed to provide 2 levels of reporting.
- ◆ Allocation reporting: the Ministry of Finance and the Belgian Debt Agency will coordinate and publish a report on the management/allocation of the proceeds of the preceding year to Eligible Green Expenditures or their estimates that will be further refined throughout the year. This allocation of the proceeds will be reviewed annually by an independent audit firm. The first allocation reporting will be published in the year following the first issuance and then annually until full allocation.
- ◆ Impact reporting: The Minister of the Environment will coordinate and publish a report on an assessment of environmental impact of Eligible Green Expenditures. For the purpose of this reporting, a task force – consisting of the DG Environment, FPS Finance, FPS Mobility, FPS Economy / DG Energy, Government Buildings Agency, Scientific Policy and Development Cooperation, and any other relevant body – will provide input. The first impact report will be published in the year following the issuance, and as necessary thereafter following additional issuance/tap or subject to other relevant information becoming available.

Green Sectors	Examples of potential impact indicators
Energy Efficiency	<ul style="list-style-type: none"> <li>◆ Annual energy savings in MWh/GWh</li> <li>◆ Annual GHG emissions reduced/avoided in tonnes of eq. CO<sub>2</sub></li> </ul>
Clean Transportation	<ul style="list-style-type: none"> <li>◆ Annual energy savings in MWh/GWh</li> <li>◆ Annual GHG emissions reduced/avoided in tonnes of eq. CO<sub>2</sub> (per passenger/tonne-km)</li> <li>◆ Number of km of new train lines created / maintained</li> <li>◆ Number of people in [new] environmentally friendly means of transportation</li> </ul>
Renewable Energy	<ul style="list-style-type: none"> <li>◆ Annual GHG emissions reduced/avoided in tonnes of CO<sub>2</sub> equivalent</li> <li>◆ Annual renewable energy generation in MWh/GWh</li> <li>◆ Capacity of renewable energy systems installed in MW</li> </ul>
Circular Economy	<ul style="list-style-type: none"> <li>◆ Amount of waste diverted from landfill</li> <li>◆ Monetary value of products (recycled materials, etc.) created from waste processing / products containing a high proportion of recycled materials</li> </ul>
Living Resources and Land Use	<ul style="list-style-type: none"> <li>◆ Area of land remediated / rehabilitated (for polluted sites)</li> <li>◆ Area conserved or protected</li> <li>◆ Number and nature of projects that support climate change adaptation / resilience</li> </ul>

# Details on Rail-related Eligible Green Expenditures

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- ◆ The Belgian Federal State is supporting the national rail operator, SNCB/NMBS (Société Nationale des Chemins de fer Belge / Nationale Maatschappij der Belgische Spoorwegen), in its commitment to provide **“safe, reliable and sustainable mobility”**.
  
- ◆ Eligible Green Expenditures include:
  - ◆ Federal State’s subsidy to SNCB’s investments:
    - ◆ Investments in rolling stock: € 411m\* (see the following example),
    - ◆ Investments in Reception of clients: € 103m\*,
    - ◆ Maintenance facilities: € 119m\*,
  - ◆ Federal State’s subsidy to SNCB’s operating expenditures related to rail and infrastructure assets:
    - ◆ Annual Charge for use of the Infrastructure: € 631m\*,
    - ◆ Maintenance costs of SNCB: € 85m\*.
  
- ◆ The Belgian Federal State is also supporting Infrabel, the Belgian railway infrastructure manager, whose operations are significantly contributing to reinforce the attractiveness of rail versus road transport.
  
- ◆ The Federal State’s subsidy to Infrabel for investments represents over € 850m\*:
  - ◆ More than € 350m is currently dedicated to investments for safety and punctuality improvement (see the following example),
  - ◆ Significant investments are also annually dedicated to maintenance and upgrade of Belgian railway network: replacement of tracks, ballast and sleepers, switches, and electrification (€ 500m).



\* Estimated annual amounts for 2017

# Illustration in the Transportation Sector

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- ◆ Enhance the attractiveness of rail transportation is key for promoting the modal shift to clean transportation in Belgium.
- ◆ Federal State's expenditures support respectively investments in rail stock by SNCB and in railway infrastructure by Infrabel that increase the comfort, safety and punctuality of rail transportation.

## M7 Trains

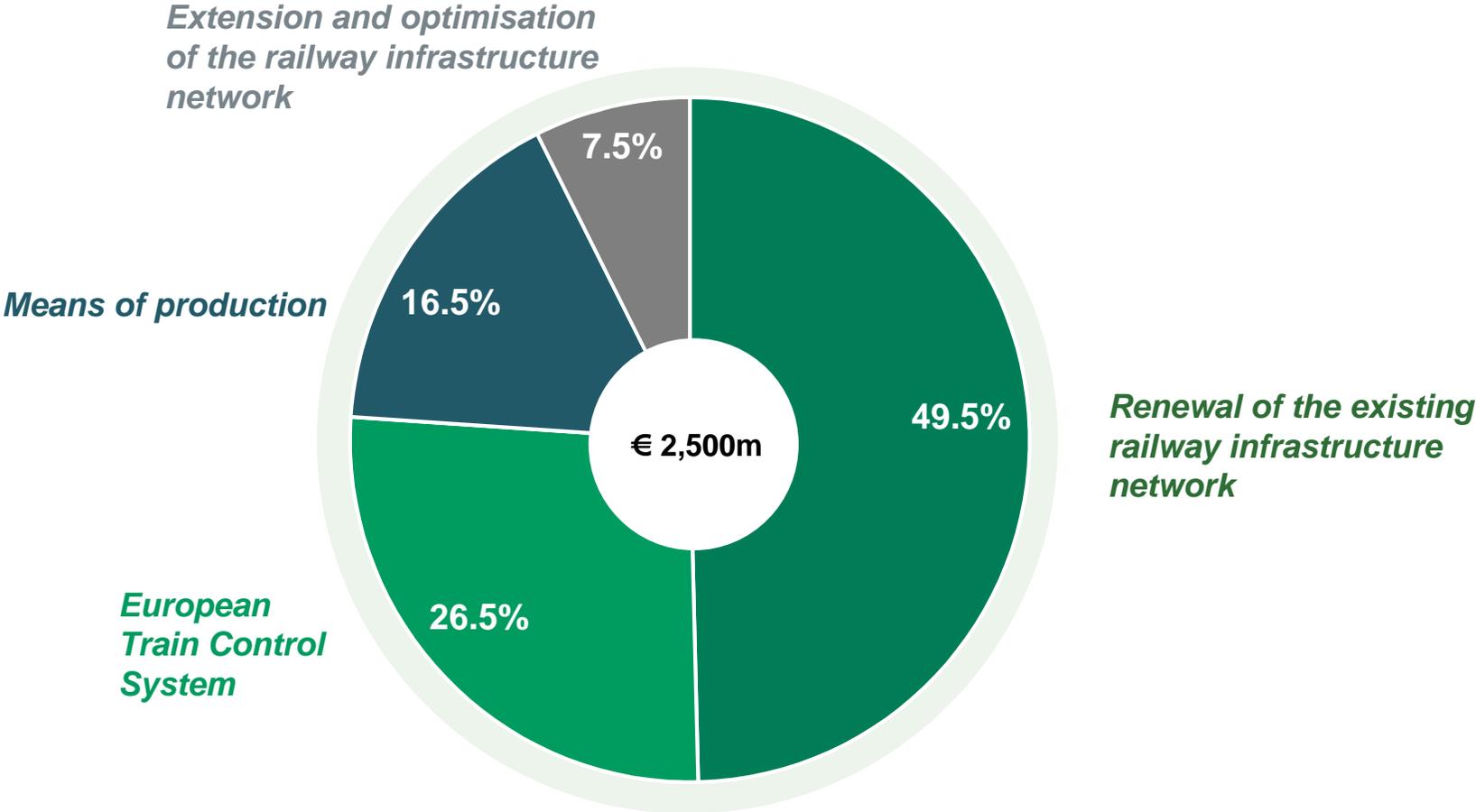
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- ◆ M7 trains are the new generation of double-deck SNCB's trains which will provide 145,000 additional seats to passengers
- ◆ SNCB signed a first firm order of € 1.3bn contract with Bombardier/Alstom Consortium in December 2015.
- ◆ 445 train cars are expected to be delivered between 2018 and 2021 but the frame contract includes the possibility to increase the order up to 917 additional cars.
- ◆ M7 trains will comply with the highest standard of modern mobility solutions regarding safety and comfort. Disabled persons will benefit from a specific car in each train, in line with the latest European standards in the matter.
- ◆ For the first time in its history, SNCB consulted stakeholders and passengers including those with reduced mobility before ordering the trains. Their remarks were included when technically and financially feasible.



# Illustration of the Investments in the Transportation Sector – INFRABEL (1/4)

*Investment plan of Infrabel  
Period 2018-2020 (\*)*



(\*) Infrabel multiyear investment plan 2018-2020 (approved on February 2, 2018)

# Illustration of the Investments in the Transportation Sector – INFRABEL (2/4)

## Renewal of the existing railway infrastructure network

- ◆ Belgium has a dense railway infrastructure network. There are<sup>(1)</sup> 6 511 km of main tracks, of which over 90% is electrified, containing more than 4 000 track switches, more than 11 000 civil engineering structures (bridges, tunnels,...), more than 10 000 signals,... This extensive railway network allows the historical railway operator SNCB to generate their offer in passenger traffic, as well as the other operators to offer international passenger transport and freight transport services by rail.
- ◆ In order to preserve the existing railway network and offer a reliable infrastructure, its components need to be renewed on a regular basis. Depending on the component (rails, sleepers, signals, bridges, tunnels, cabling,...) and its usage, this can vary between 5 and 120 years.
- ◆ These renewal works are very capital intensive and require a significant investment every year: currently, Infrabel uses about 50% of its Federal State investment grants for this purpose.
- ◆ In some cases, specific programs are developed in order to structurally renew a certain line section (e.g. the railway axis Brussels-Luxemburg) and improve its safety, quality and robustness (e.g. the Brussels North-South link).



(1) Data on December 31, 2016

# Illustration of the Investments in the Transportation Sector – INFRABEL (3/4)

## European Train Control System (ETCS)

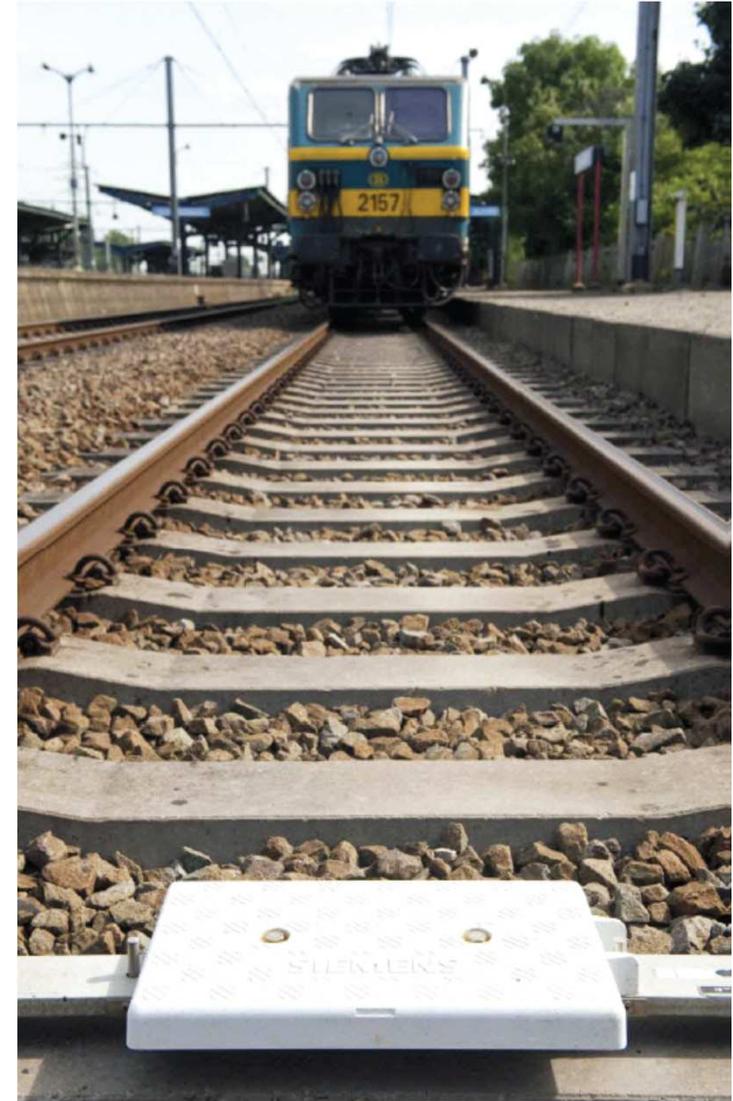
- ◆ Infrabel aims at making the Belgian rail network one of the safest in Europe. To do so, the European Train Control System (ETCS) is being installed on the national rail network since 2009.
- ◆ ETCS is an automatic train control system operating with balises in the track that allow the train driver to closely monitor train's speed and even correct him by activating the emergency brake.
- ◆ ETCS is a European interoperable standard, allowing trains from other European countries to run safely in Belgian networks which contributes to a unified and safer European rail network promoting international traffic by rail (passenger and freight).
- ◆ Infrabel issued in 2011 the ETCS Master Plan, an ambitious € 2 bn program aiming at equipping the entire Belgian infrastructure with ETCS by 2025.

ETCS fin 2015



INFRABEL  
Région des Trains

Co-financé par l'Union européenne  
Réseau Trans-européen de Transport (TEN-T)



# Illustration of the Investments in the Transportation Sector – INFRABEL (4/4)

## Means of production: workshops, rolling stock,...

- ◆ In order to maintain the Belgian railway infrastructure network as well as manage the railway traffic (long term planning as well as day to day operations), Infrabel needs to dispose of the necessary production means.
- ◆ Infrabel has its own workshops, which are modernized to the standards of today, improving not only the safety for the workers, but also taking into account the environmental aspects. One of the modernisation projects allows for example the construction of switches on concrete sleepers in stead of wooden sleepers, structurally improving the impact on the environment.
- ◆ Infrabel invests every year in its rolling stock (e.g. a ballast tamper), which is required in order to dispose of the necessary tools for an efficient maintenance and renewal process, limiting the impact on the day to day operations.
- ◆ Given the geographical dissemination of its network, the personnel of Infrabel is housed in buildings all over Belgium. A program is ongoing in order to concentrate the workforce in less buildings which are constructed or modernised taking into account the current environmental standards (e.g. energy consumption). Examples are the new logistics centres (maintenance and renewal crews) and the new concentrated signalling boxes, evolving from 311 boxes (2005) to 10 large signalling boxes.



## Extension and optimisation of the railway infrastructure network

- ◆ In order to support the use of the railway transport mode, apart from increasing the safety and reliability of the existing network, there are also some investment projects allowing to extend the capacity of the network. Ongoing projects are for example the addition of a third and fourth track between Ghent and Bruges (allowing an increase passenger traffic by rail) and the investments in the ports (allowing an increase freight traffic by rail).
- ◆ Infrabel also invests in infrastructure works to allow passenger amenities to be improved by increasing the height of the railway platforms (allowing easier access to the trains), improving the announcement systems and reviewing the track configuration.

# Use of Proceeds: Illustration in Other Sectors

## Research programs – Stereo and Belgica

- ◆ Support to the Exploitation and Research in Earth Observation (**STEREO**) is a Belgian Earth Observation Research Programme launched in 1985 under the name TELSAT. STEREO's main goal is to develop remote sensing research.
- ◆ **A962 Belgica** is the oceanographic research vessel built in 1984 with the objective of monitoring the North Sea marine activity by collecting all sorts of data on the biological, chemical, physical, geological and hydrodynamic processes which take place there.



## International cooperation

- ◆ Belgium committed to contribute to the joint commitment made by developed countries to mobilise \$ 100bn/year in 2020 to support the fight against climate change in developing countries.
- ◆ In 2016, Belgium provided € 100.9m climate financing to developing countries, both through bilateral and multilateral channels.
- ◆ The Federal Government provided € 50m in the context of the initial resource mobilization of the Green Climate Fund (2015-2018), the main international channel of multilateral climate finance.



## Fidentia Funds

- ◆ Fidentia BeLux Investments (FBI) invests in buildings mainly used as offices in Belgium and Luxembourg which have a “green” certification.
- ◆ Flagship investment is “Solaris” building located Chaussée de La Hulpe in Brussels.
- ◆ It is certified by the standards Valideo (design – delivery) and BREEAM in use (rating: excellent).



## Ginkgo Funds

- ◆ Ginkgo is specialized in the sustainable rehabilitation of polluted industrial sites in urban areas across Europe.
- ◆ Since inception, 2 funds have been raised, allowing Ginkgo to own 600,000m<sup>2</sup> of building rights at the core of major urban areas, creating 6,000 new houses and creating 15,000 jobs.
- ◆ SFPI / FPIM has committed to invest €11m (13.75% of capital share) in Fund II.



# Second Opinion from Sustainalytics

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- ◆ This Green OLO Framework obtained a “Second Opinion” by Sustainalytics, dated February 6, 2018. This opinion is available at the following address [www.debtagency.be/en](http://www.debtagency.be/en).
- ◆ “In Sustainalytics’ view, the inaugural Green OLO Framework aligns with the mandate and strategy delineated by the Government of Belgium, which is endorsed by the country’s Prime Minister.”
  - ◆ “Sustainalytics views positively the Government of Belgium’s leading role in supporting Green Finance, and the importance of its inaugural Green OLO as a catalyser for the development of the local Green Bond market and for stimulating public and private investments in low-carbon assets supporting the country’s energy and ecological transition.”
  - ◆ “Sustainalytics is of the opinion that the Kingdom of Belgium has a strong sustainability strategy supported by a robust governance structure”
- ◆ “Overall, Sustainalytics is of the opinion that the Kingdom the Belgium’s Green OLO Framework is transparent and credible and aligns with the four pillars of the Green Bond Principles 2017.”
  - ◆ Clean Transportation, Renewable Energy, Energy Efficiency, Circular Economy and Living Resources and Land Use, are referred by the Green Bond Principles as project categories with clear environmental benefits, and Sustainalytics views these projects as having positive environmental impact (for additional information on impact, see Section 3);
  - ◆ The process for project evaluation and selection is executed annually by an Inter-Ministerial Working Group, coordinated by the Ministry of Finance and the Belgian Debt Agency, the Minister of the Environment and the Prime Minister. [...]. Sustainalytics considers that the inter-ministry coordination is likely to strengthen the evaluation and selection of Eligible Green Expenditures, and views positively the fact that the Belgian Prime Minister is strongly involved in this process;
  - ◆ The management of proceeds will be executed by the Belgian Debt Agency. The full allocation will occur on a notional basis, and includes identified expenditures from the Federal State’s budget and Federal State’s investments in Green investment funds. Sustainalytics considers the approach for management of proceeds to be in line with market practice;
  - ◆ The Kingdom of Belgium demonstrates a strong commitment to transparent reporting.”

# The Green OLO: Safe, Liquid and Green by Nature

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## *Safe, Liquid and Green*

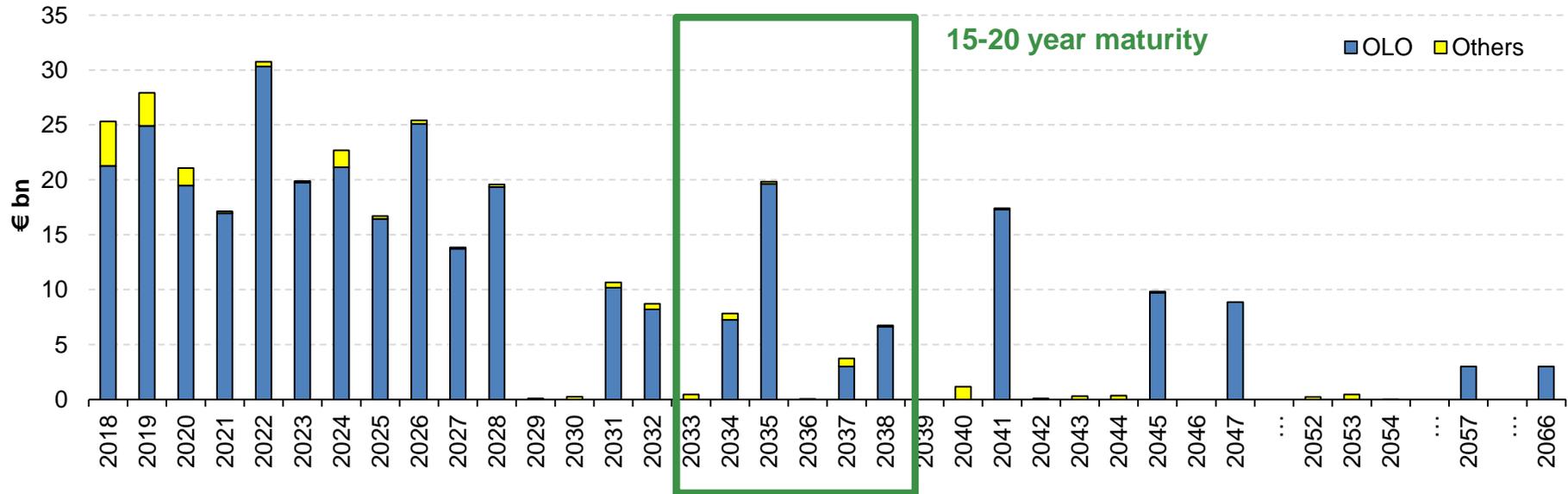
- ◆ *Same financial characteristics as a conventional OLO:*

- ◆ *Same liquidity,*
- ◆ *Same size,*
- ◆ *Same price*

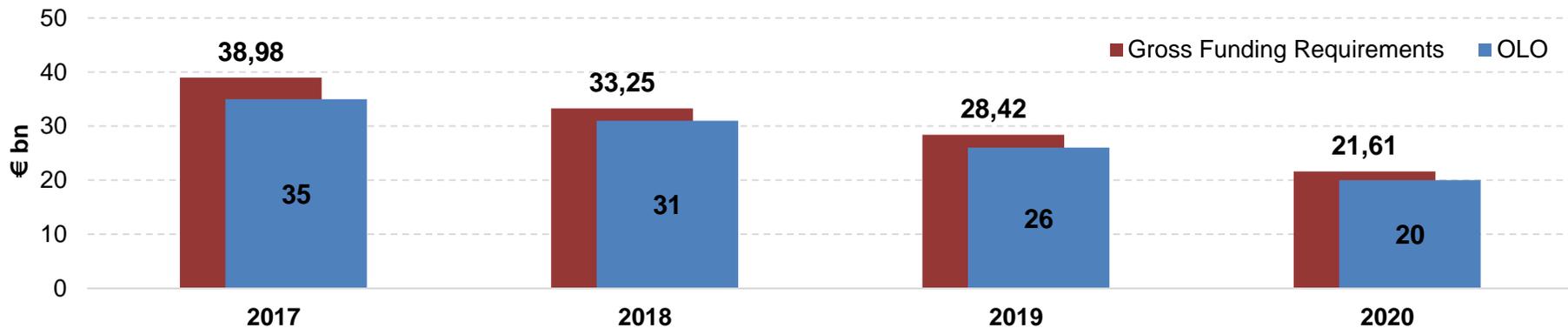
- ◆ *Dedicated to the ecological transition*
- ◆ *Supporting the Belgium's environmental and climate policies*
- ◆ *Compliant with the Green Bond Principles*
- ◆ *Following the best standards of the Green Bond market*

# Green OLO Framework: The Green OLO will fit into the OLO Curve

Maturity schedule on December 31st, 2017



Its value will be supported by the sharp decline in OLO issuance

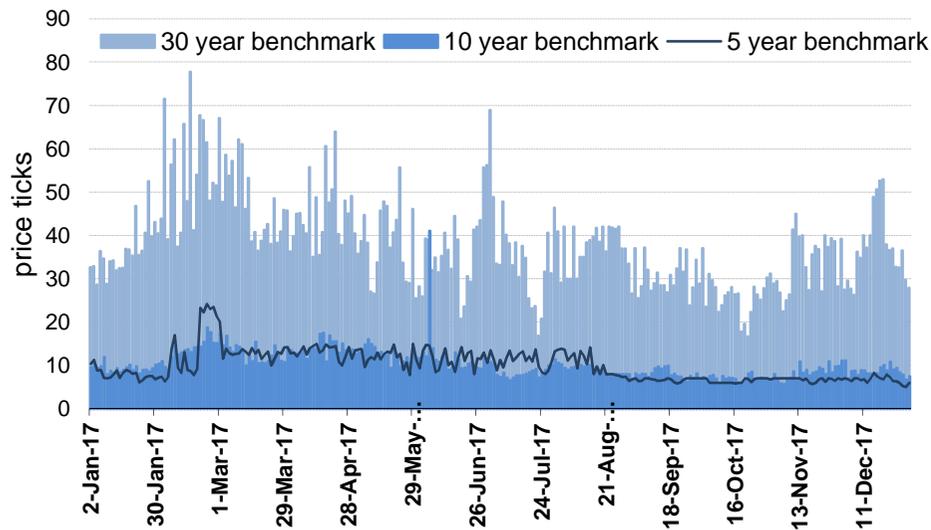


# The Green OLO will be One of the World's Most Liquid Green Bonds

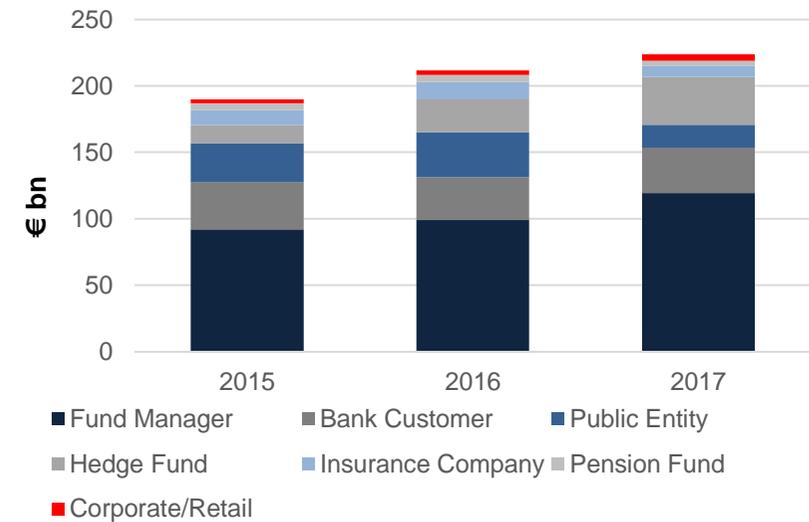
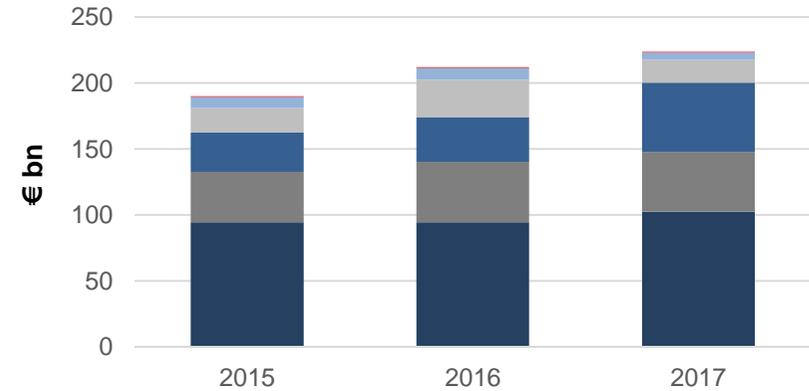
## OLOs: Liquidity enhancing factors

- ◆ Immediately sufficient volume via syndication technique
- ◆ Regular taps
- ◆ Daily market making obligation by 13 primary dealers, 6 recognized dealers adding liquidity

## OLO Bid/Offer spreads are tight



## OLO Turnover on the secondary market is increasing



# Contacts

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Belgian Debt Agency

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**Ministry of Public Health,  
Food Chain Safety and  
Environment**



Service public fédéral  
Santé publique, Sécurité de la chaîne alimentaire et Environnement  
Federale Overheidsdienst  
Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu

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