



GOVERNMENT DEBT MANAGEMENT AGENCY PTE LTD.

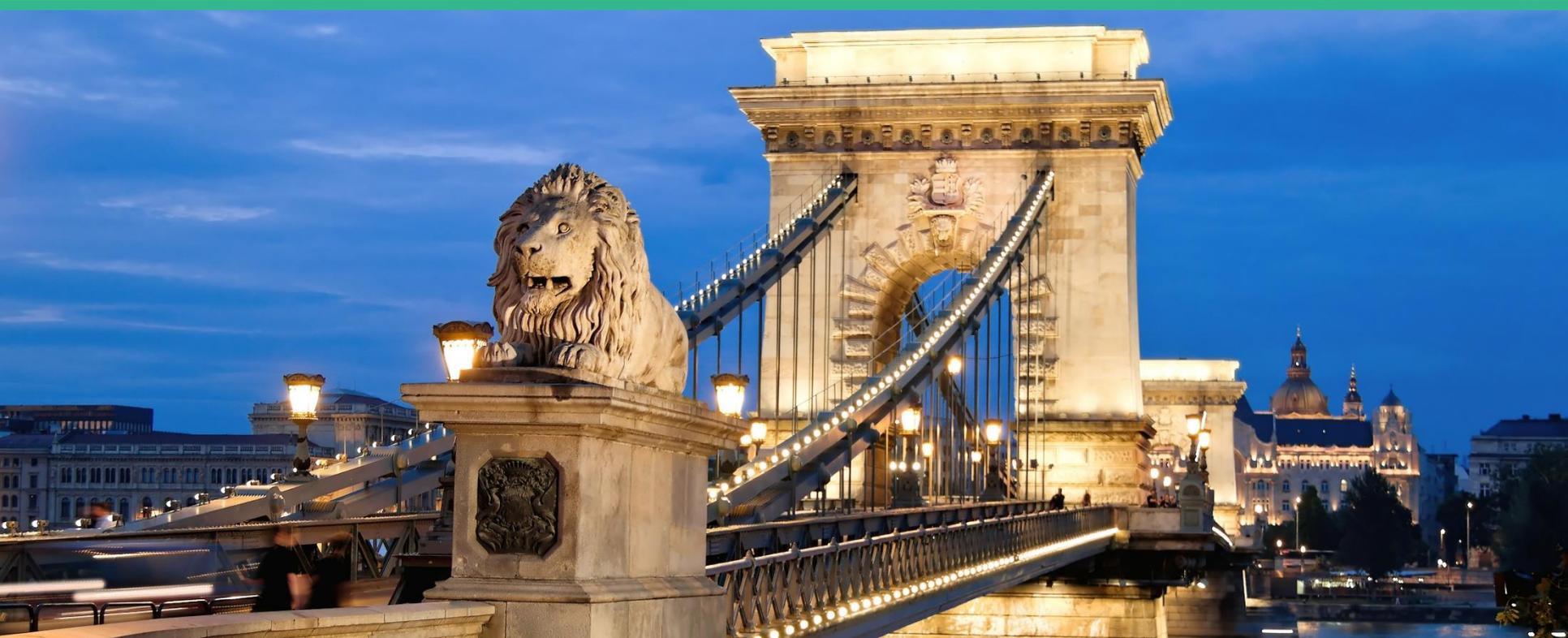
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THE ROLE OF GREEN BONDS IN THE ENERGY

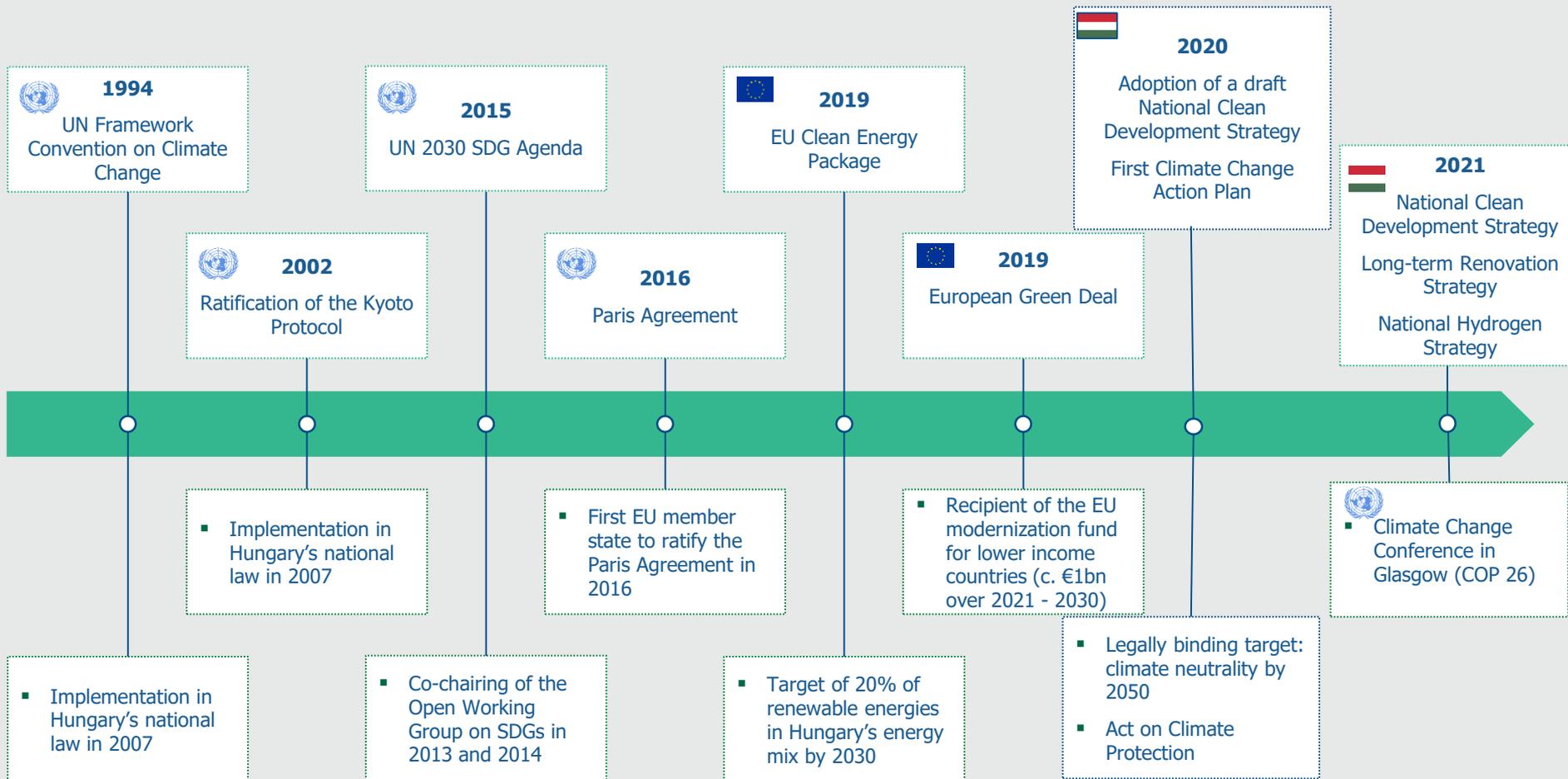
Session II: government bonds issuance to support national green programmes

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HUNGARY'S ENVIRONMENTAL COMMITMENTS AND INITIATIVES



NATIONAL STRATEGY TO ACHIEVE CLIMATE NEUTRALITY AND THE SDG

Hungary's strategies to mitigate climate change

Long term

National Clean Development Strategy

- This strategy aims to achieve **climate neutrality by 2050**
- To achieve this target, the additional annual investment need accounts for 4.8% of the GDP (early action scenario)

2nd National Climate Change Strategy

- This strategy consists in a **comprehensive framework of targets and policies** on climate and green economy development
- Focuses on 4 pillars for the 2018 – 2030 period

2nd National Climate Change Strategy: Four key pillars

Decarbonisation:

- Replacement of fossil fuel energy carriers
- Increase in energy efficiency
- Reducing natural resources consumption



Adaptation:

- Preservation of natural resources
- Adaptation of vulnerable regions and sectors



Analysis of climate vulnerability:

- Development of vulnerability methodologies
- Promoting climate-related research projects



Partnership for climate

- Horizontal integration in public administration
- Awareness-raising through Education



Short term

Milestones and achievements – Climate change

32% GHG reduction

Hungary reduced its greenhouse gas emissions by 32%¹ between 1990 and 2019

EU top-10 emissions reduction

Hungary is in the EU top-10 for greenhouse gas emissions reductions between 1990 and 2019 (10th place¹)

Low emissions per capita

The Hungarian GHG emission per capita is 82% of the EU average¹: the 7th lowest value in the EU (2019)

Ambitious GHG reduction target

The Government targets at least 40% GHG emissions reduction by 2030² (compared to the 1990 level)

Achievements of the SDGs

SDG Index Score (2021)

78.8%³

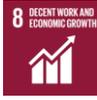
% of SDG achievement measuring progress towards the 17 SDGs

SDG index rank (2021)

25 / 165³

Country ranking relative to SDG achievements

OVERVIEW OF FLAGSHIP ESG PROJECTS

Project	Category	Objective	Description	UN SDGs	ICMA / EU Taxonomy
Development of electric cars	Green	Support the development and rapid adoption of electric cars in Hungary harnessing sustainable and modern energy	Government subsidies and registration tax credit to incentivize the shift to electric cars		 
Electrification of railway network	Green	Limit the environmental impact of Hungary's railway network improving sustainability of transport and settlements	Electrification of not yet electrified railway network lines		 
Support to families	Social	Provide financial support to large families promoting inclusive economic growth and social protection	Various subsidies and tax incentives supporting families with children		
Women / mothers employment	Social	Enable and incentivize the employment of women / mothers enhancing gender equality	Tax incentives and social benefits supporting full-time or part-time employment of women with children		
MAP Plus bond program	Governance	Enhance financial inclusion through the development of a retail domestic bond market	Retail bond issuance program giving access to citizens to HUF denominated instruments with attractive rates and easy access (sold via banks, post office, Treasury...)		

GREEN FINANCE IN HUNGARY

Key stakeholders



- **The Hungarian Government Debt Management Agency (AKK)**



- **The Hungarian Central Bank (NBH)**



- **The Hungarian corporate sector**

Initiatives

- **Hungary has adopted a green financing framework in May 2020**, which includes 6 green expenditure categories:
 - Renewable Energy
 - Energy Efficiency
 - Land Use and Living Natural Resources
 - Waste water Management
 - Clean Transportation
 - Adaptation

- **The NBH announced its Green Program in February 2019** aiming to reduce the risks associated with climate change and expand the financing of the green economy
- In July 2021, the NBH revamped its strategy through a "**Green Monetary Policy Toolkit Strategy**"

- **An increasing number of corporates are considering green issues** on the back of AKK and NBH efforts to help the sector grow

Achievements

- Since then, **the country has issued several green bonds in both local and foreign currencies**:
 - June 2020: issuance of a €1.5bn Eurobond
 - September 2020: issuance of 2 Samurai bonds for a total of JPY 20bn
 - April 2021: debut issuance of a HUF 41.2bn green bond with a 30 years maturity with the intent of developing the local green bond market
 - December 2021: issuance of a Panda bonds for a total of CNY 1bn
 - February 2022: issuance of 3 Samurai bonds for a total of JPY 59bn

- The NBH was **among the first Central Banks worldwide to set up of a dedicated Green Bond portfolio in June 2019**
- Under its newly adopted strategy, the NBH will continuously examine how monetary policy can achieve **price stability and environmental sustainability objectives**

- Corporate Green Bonds **first issuance took place in August 2020**
- **16 Hungarian corporates issued Green Bonds** in both local and foreign currency

In March 2021, Hungary published the Green Bond Allocation Report 2020

- **Hungary strives to achieve climate neutrality by 2050**
 - Green Bond Framework
 - Act XLIV of 2020 on Climate Action
 - Foreign-currency Green Bonds issuance in 2020
 - Local-currency Green Bonds issuance in 2021
- **Hungary committed to annual reporting on the allocation and the impact of its Green Bonds**
- Green Bond Allocation Report 2020 was compiled in March 2021
- Total green bonds proceeds amounted to HUF 573,68 billion; total eligible expenditures amounted to HUF 1,204.52 billion



Green Budget Expenditures (HUF billions)

Sectors	2018 Fact	2019 Fact	2020 Plan
Renewable Energy	4.86	0.84	2.05
Energy Efficiency	2.24	4.48	15.26
Land Use and Living Natural Resources	32.58	35.32	35.64
Waste and Water Management	4.36	2.66	2.80
Clean Transportation	327.36	340.23	372.63
Adaptation	0.67	7.60	12.94
Eligible Green Expenditures	372.07	391.13	441.32
Allocated Amount	372.07	201.61	

- **Hungary selected projects according to the eligibility criteria defined in the Green Bond Framework, best market practices and the second party opinion provider CICERO**
- Eligible green expenditures include investment expenditures, intervention expenditures, tax expenditures and selected operating expenditures
- Budget expenditures which obtained dedicated funding were excluded
- Nuclear power, armament and defence sector, fossil fuel production and power generation related projects were excluded
- None of the expenditures harms significantly any environmental objective of the EU

GREEN BOND IMPACT REPORT 2020

In November 2021, Hungary published the Green Bond Impact Report 2020

- **Hungary committed to annual reporting on the allocation and the impact of its Green Bonds**
- Green Bond Impact Report 2020 was compiled in November 2021
- The report covers the allocations for the budget years 2018 and 2019 and the key environmental and social impacts resulting in budget years 2018, 2019 and 2020
- **The assessment of the environmental impacts was based on the ICMA Harmonized Framework for Impact Reporting Handbook (June 2021 edition)**
- The report summarizes the indicators on a project-by-project basis



Renewable Energy	Energy Efficiency	Land Use and Living Natural Resources	Waste and Water Management	Clean Transportation	Adaptation		
8.2kt CO2 equivalent GHG was avoided	49.5kt CO2 equivalent GHG was avoided	More than 120 thousand projects supporting sustainable agricultural areas covering 794,438 hectares	Length of sewage system per kilometres of drinking water system increased to 761 meters	1,106.3kt CO2 equivalent GHG was avoided	1.8% decrease in air pollutant particular matter (PM10) between 2018 and 2019		
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	 <p>15 LIFE ON LAND</p>	 <p>6 CLEAN WATER AND SANITATION</p>	 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	 <p>13 CLIMATE ACTION</p>	 <p>6 CLEAN WATER AND SANITATION</p>	 <p>13 CLIMATE ACTION</p>



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