

The European Climate Stocktake

EU and global progress towards
the goals of the Paris Agreement

27 October 2023



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Laura Cozzi

Director of Sustainability
Technology & Outlooks,
International Energy Agency



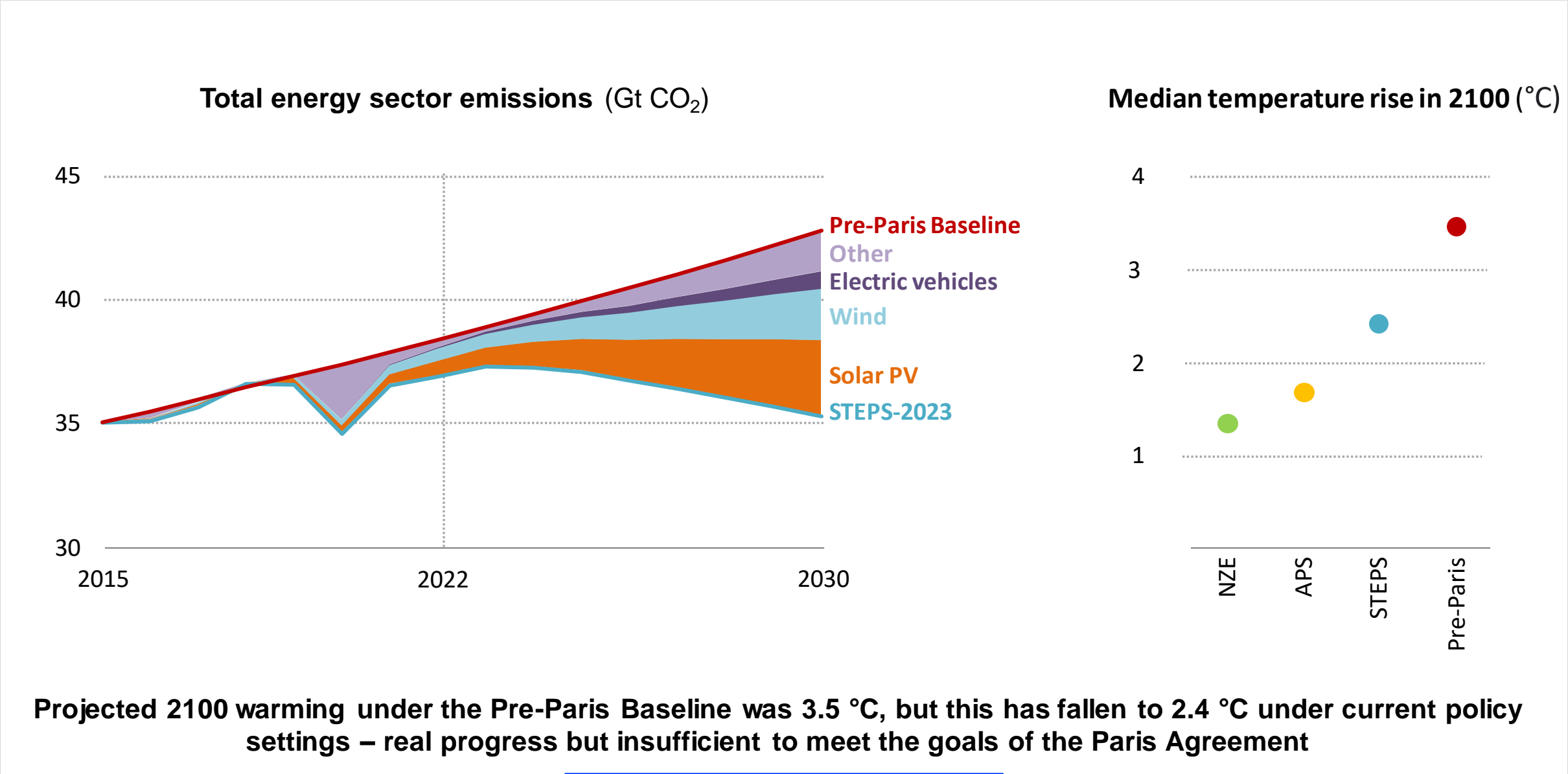


The European Climate Stocktake

Laura Cozzi, Director, Sustainability, Technology and Outlooks, IEA

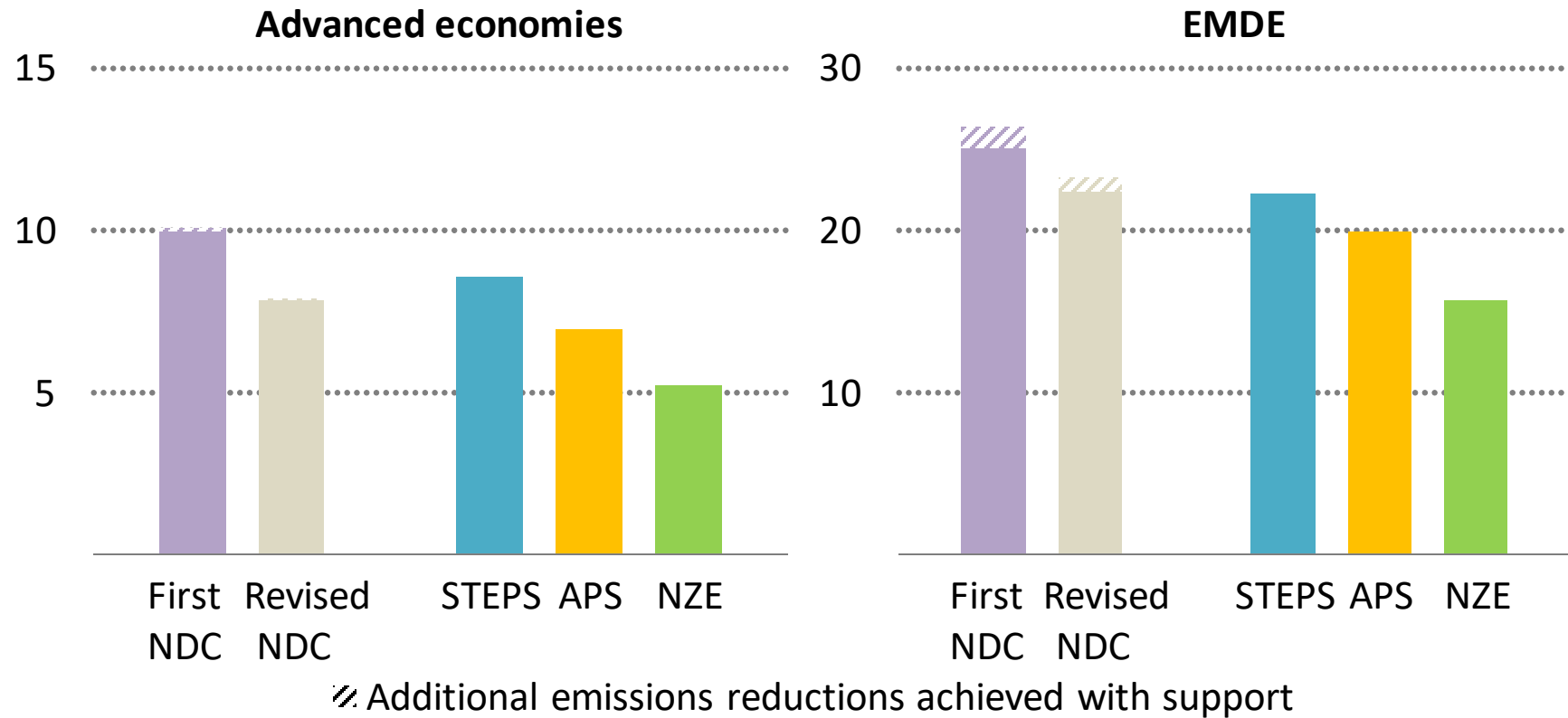
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Progress on policies and technologies have shaved off 1 °C



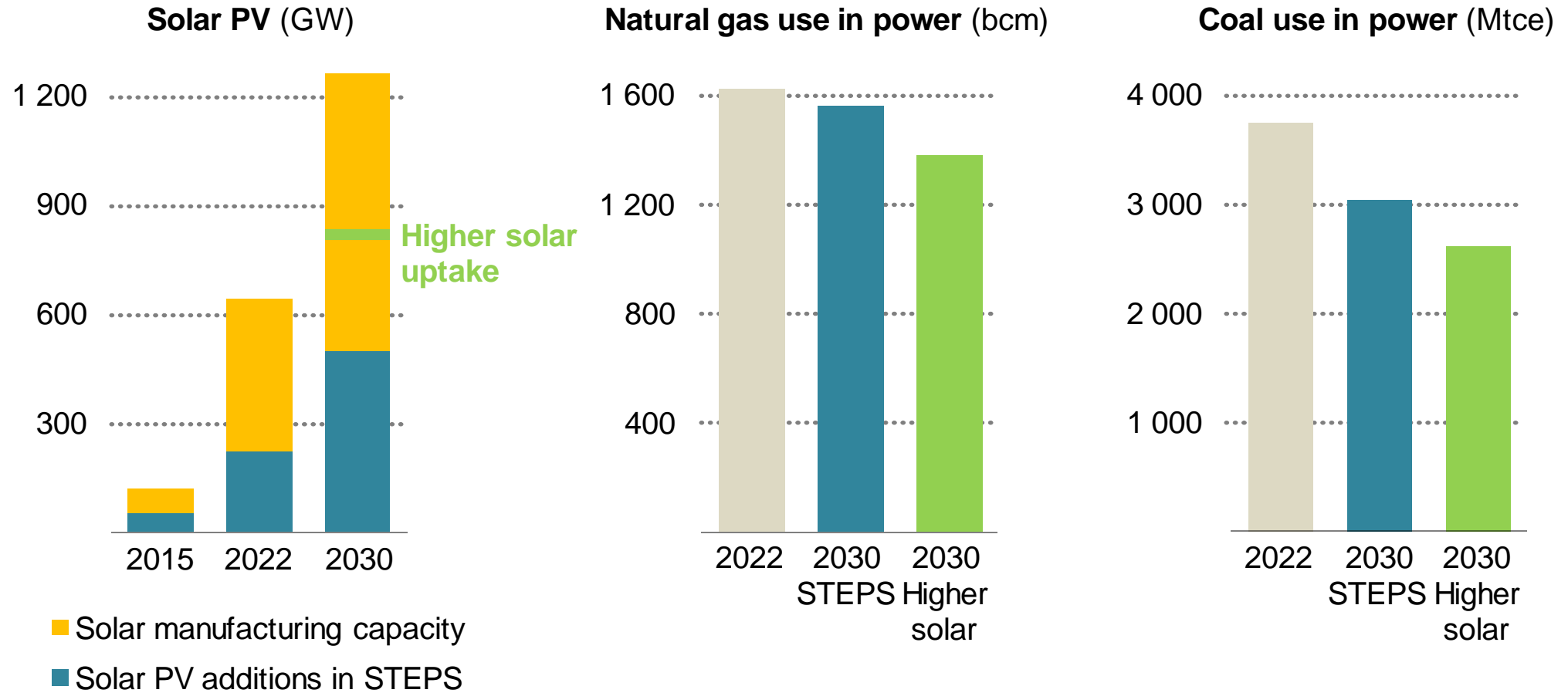
Updated NDCs raise ambition but fall short of pledges and 1.5 °C

CO₂ emissions from fuel combustion implied by NDCs and in IEA scenarios by economic group, 2030 (Gt CO₂)



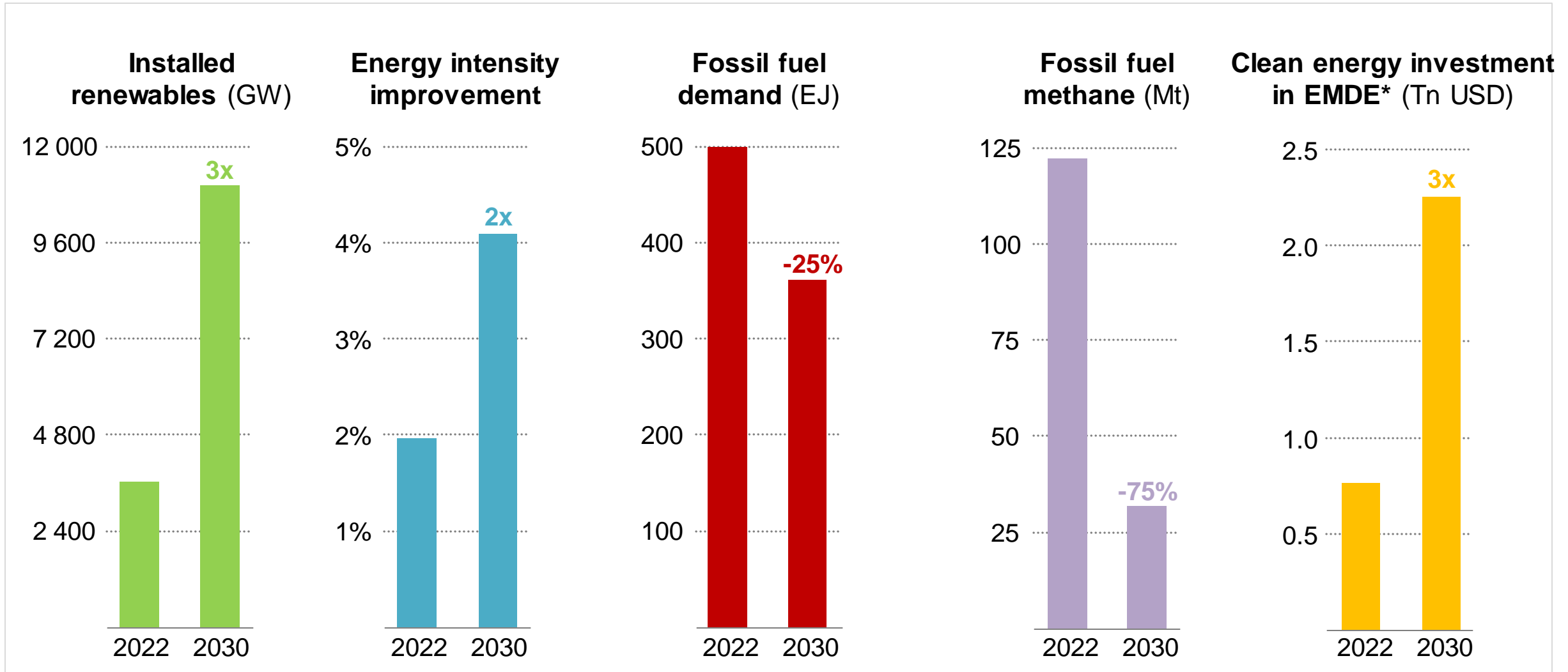
The Paris Agreement's ambition cycle has enabled a significant increase in ambition in both advanced economies and EMDE, but enhanced global cooperation remains critical to drive stronger implementation and ambition

A solar boom could accelerate the shift away from fossil fuels



Ample global manufacturing offers considerable upside for solar. Effectively integrated, this would further cut natural gas and coal use, making the declines steeper.

Five pillars to keep 1.5 °C alive



A comprehensive energy package for COP28 needs to drive the growth in clean energy, support emerging and developing economies in the transition, and recognise the need to reduce fossil fuel demand


iea

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Leena Ylä-Mononen
Executive Director,
European Environment Agency



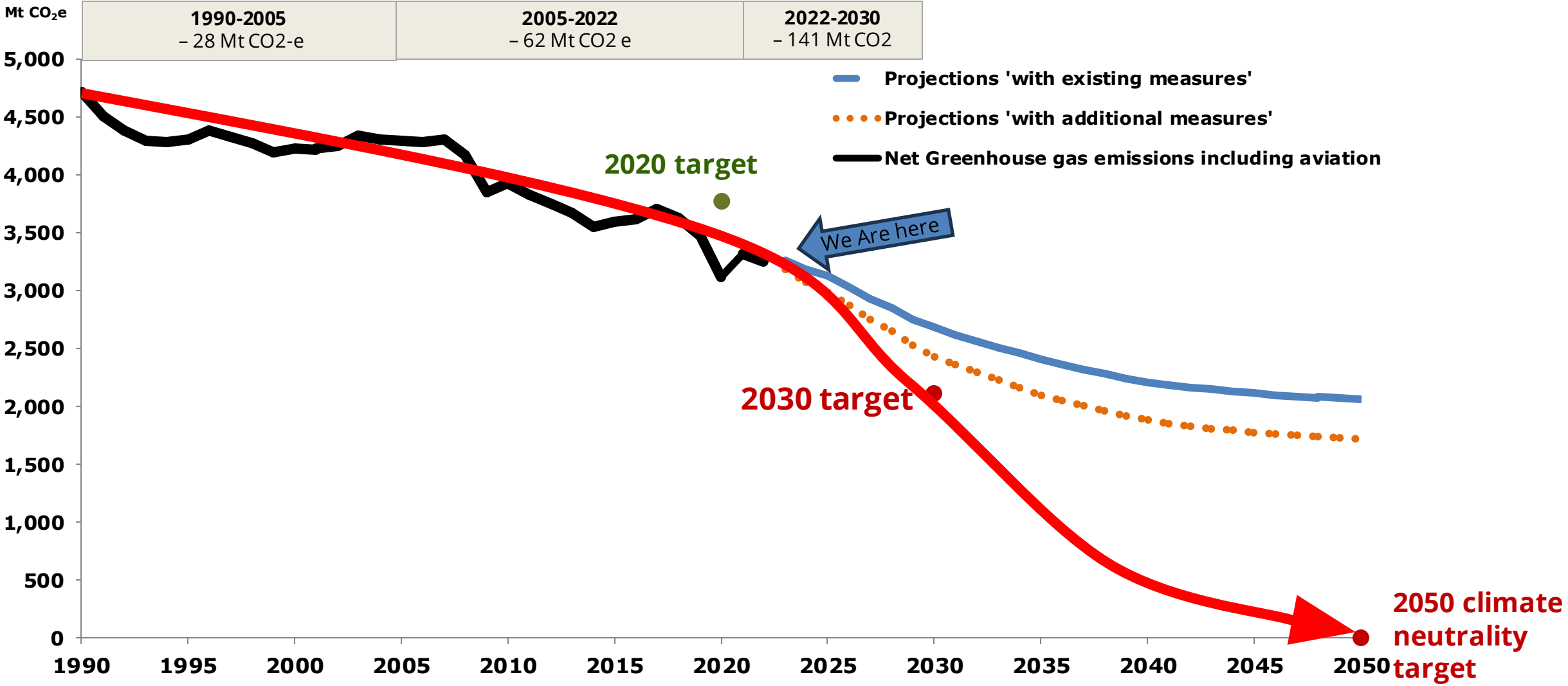
A photograph of a lighthouse on a rocky island. The lighthouse is a tall, cylindrical stone tower with a red lantern room and a weather vane on top. It has two small red-framed windows. At the base of the tower is a small, white, domed structure with a red door. The lighthouse is surrounded by a dark stone wall. Large, white, foamy waves are crashing against the base of the lighthouse and the wall, creating a dramatic scene. The sky is overcast and grey.

Towards 2050: ambitious goals, ambitious actions

Leena Ylä-Mononen | European Climate Stocktake | 27 October 2023



Towards climate neutrality in 2050



Implementation: reconfiguring energy, food, mobility and industrial systems

Phase out



- Find synergies between policy objectives
- Create enabling Conditions
- Speed/scale up deployment

Phase in



Progress can be seen in key areas

2022 vs 2021



-1.9%

Reduction of net greenhouse gas emissions (including international aviation)



+0.7%

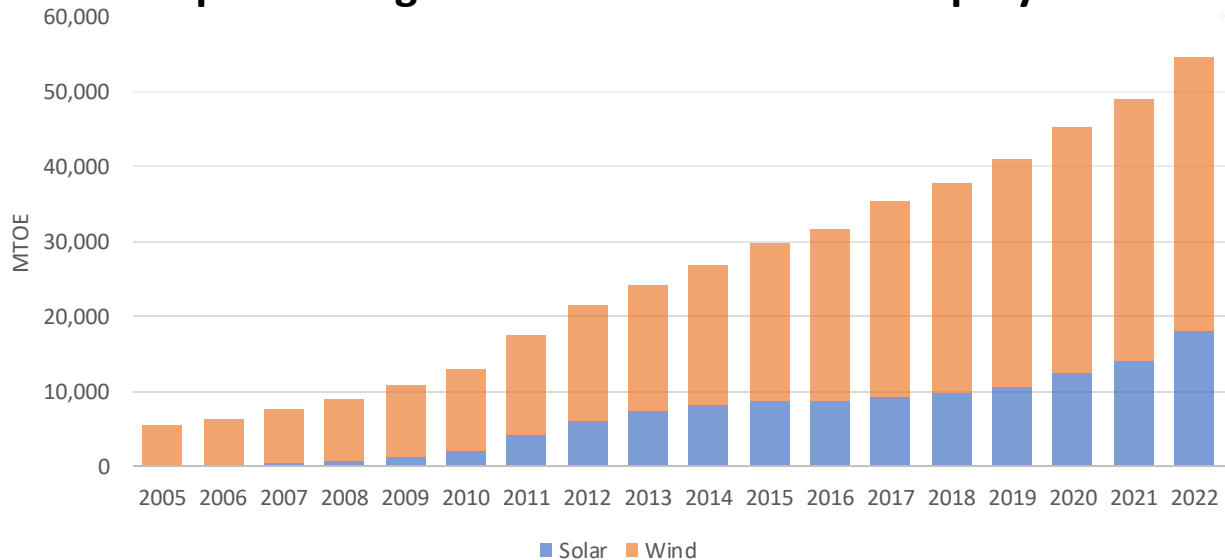
Percentage points growth in the Renewable Energy Share



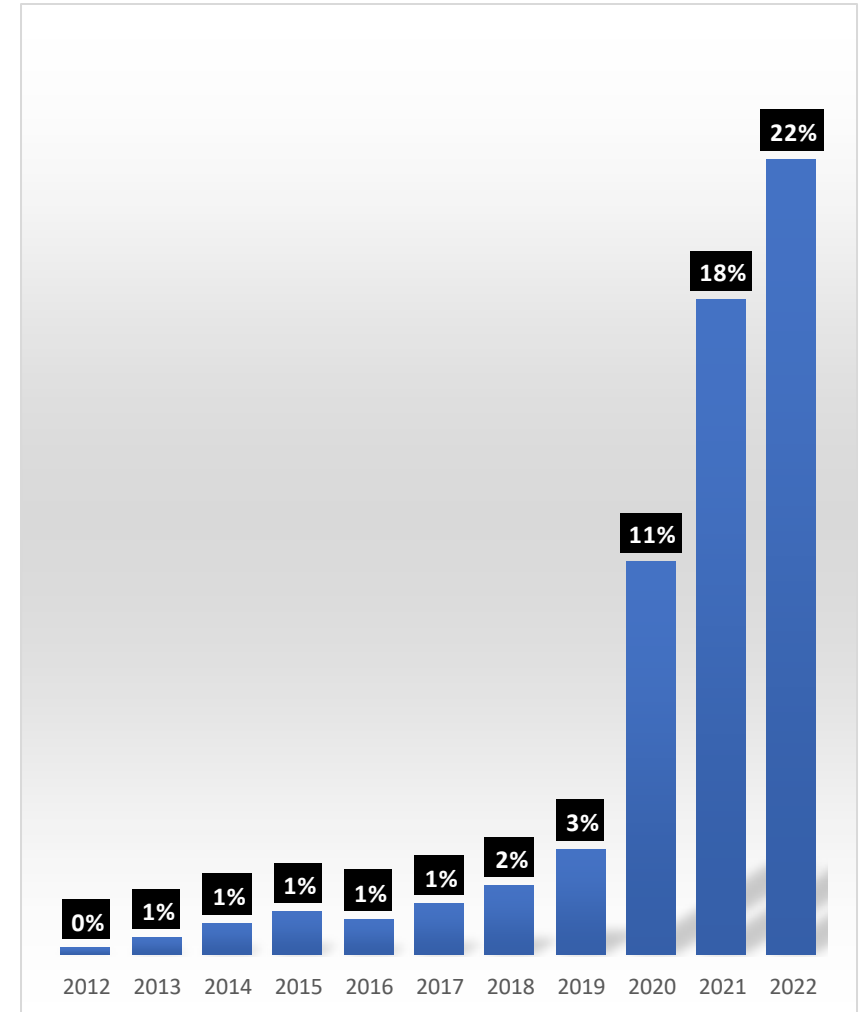
-1.5%

Reduction of final energy consumption

Exponential growth in wind and solar deployment

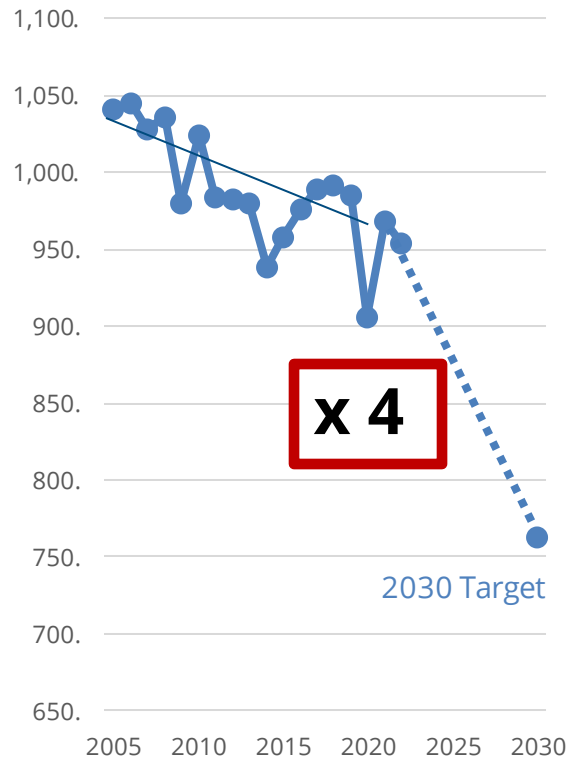


Rapid growth in electric cars' market share within a decade

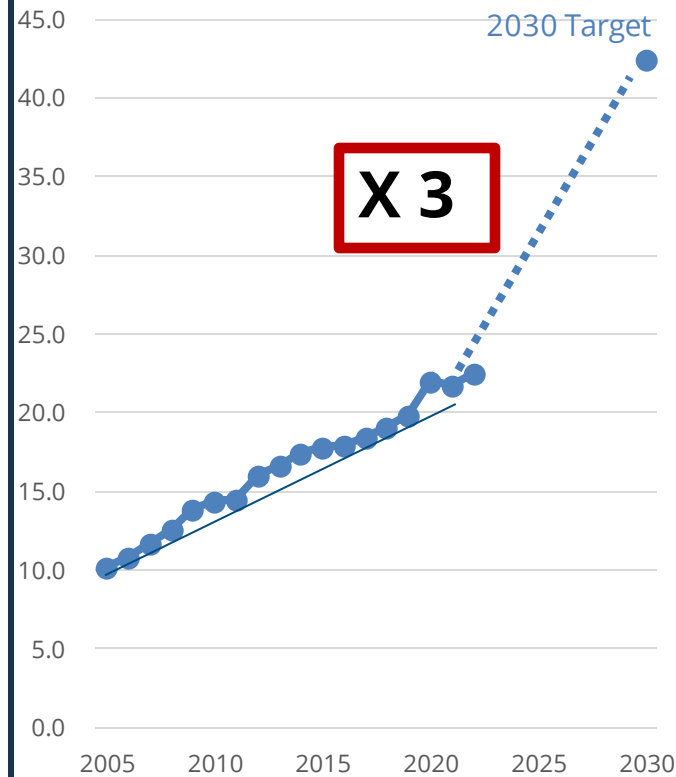


Much work still to be done towards 2030 targets

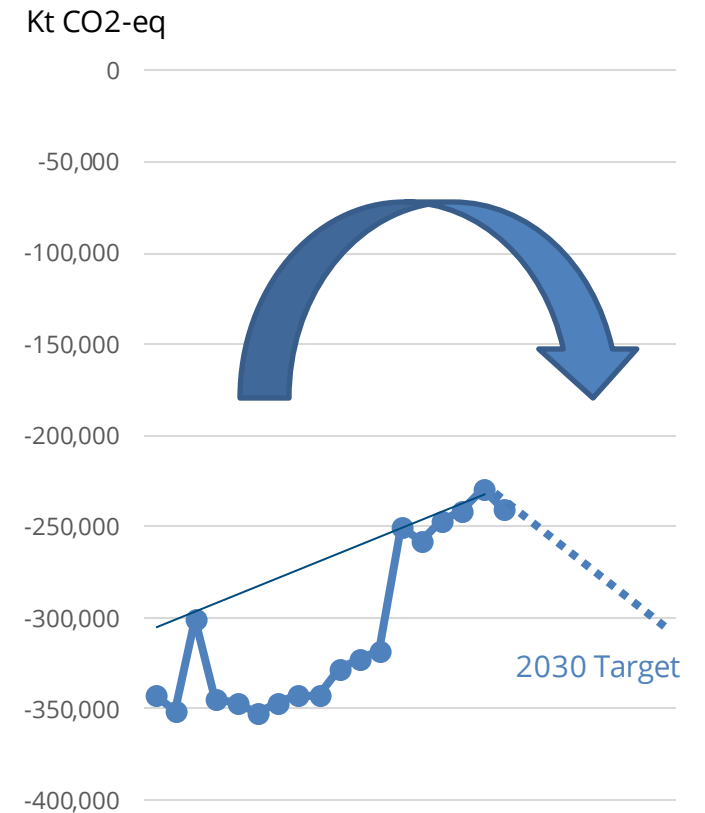
Reduction of energy consumption



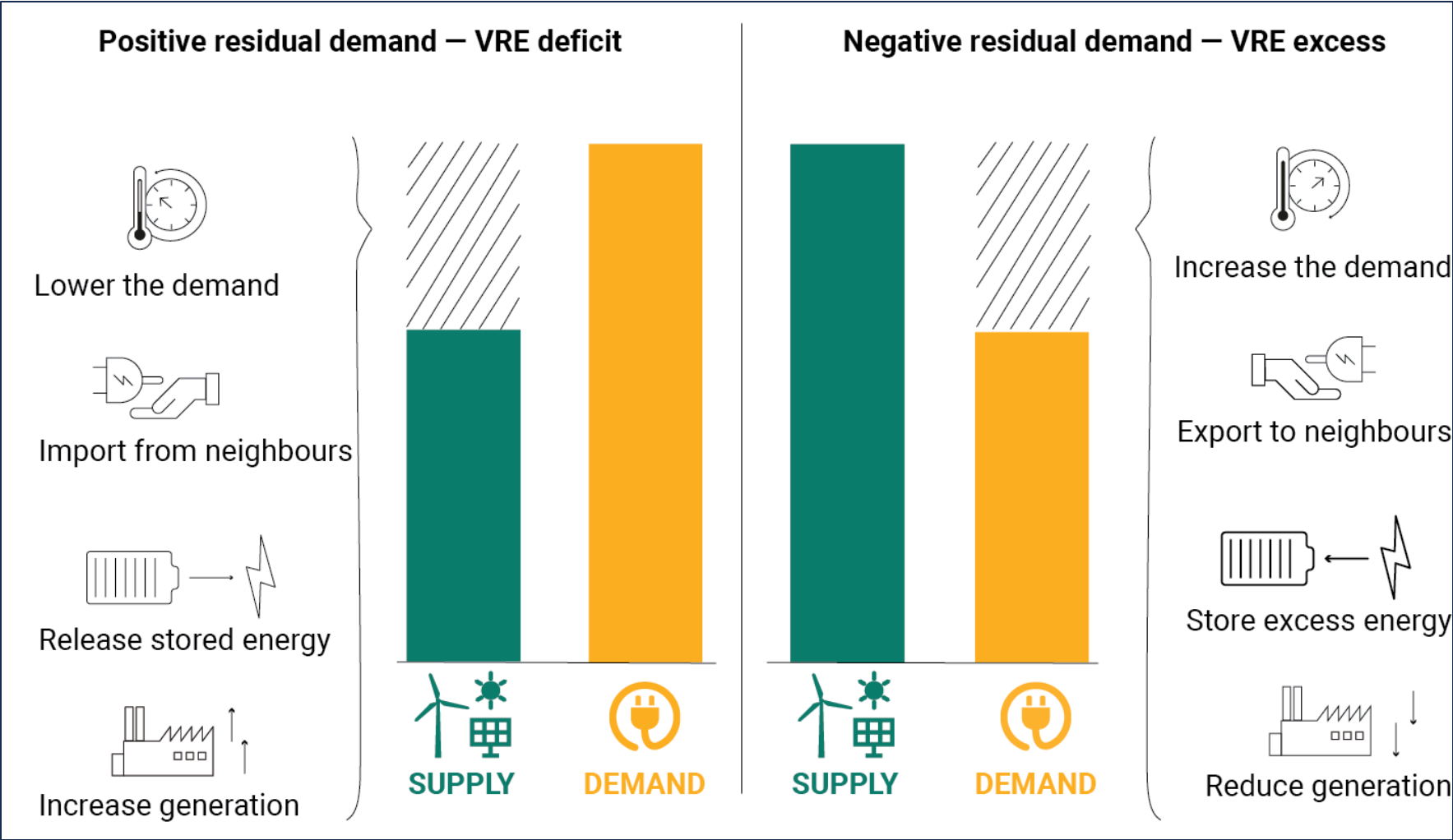
Increase renewable energy



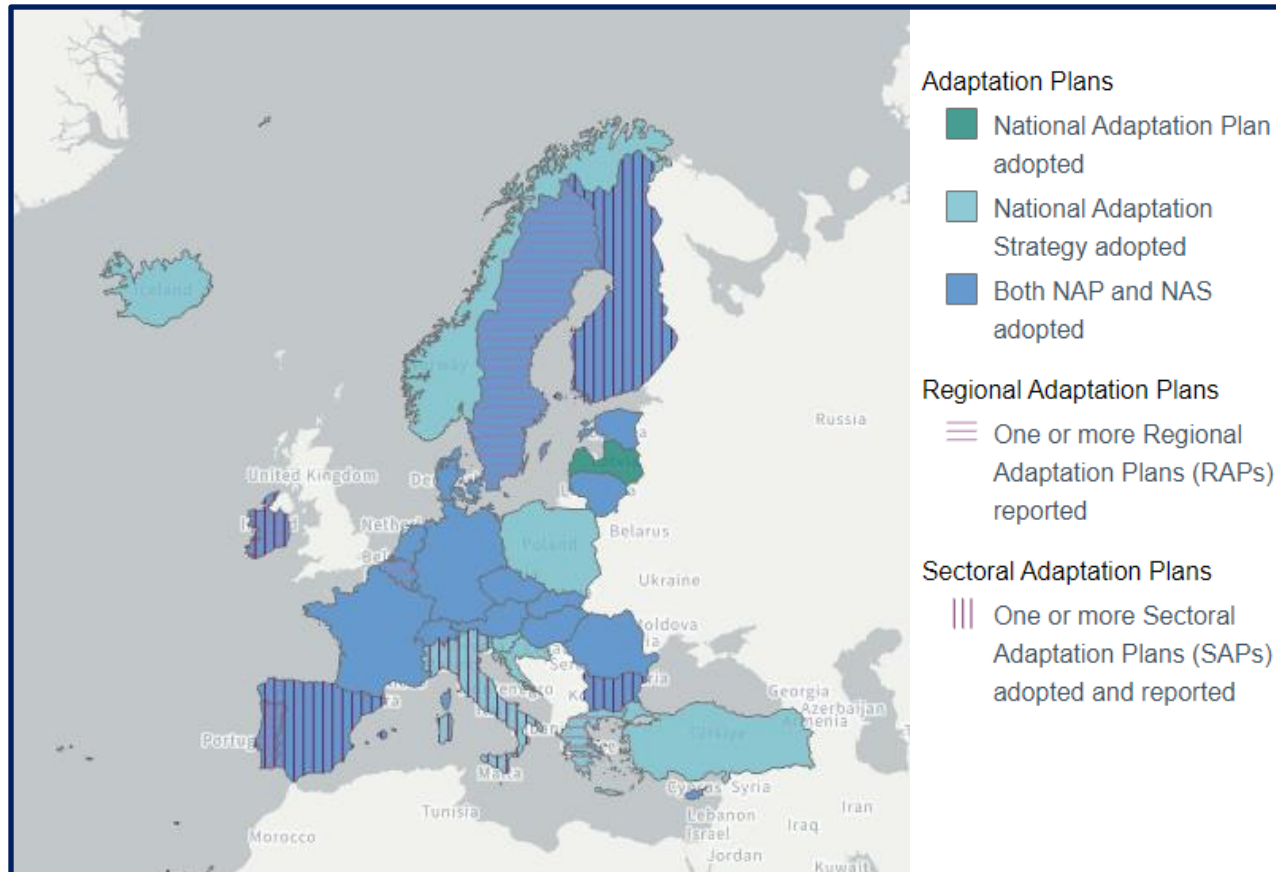
Unbending trend in LULUCF sink



Flexible solutions to support a decarbonized and secure electricity system



Further steps required towards societal preparedness to climate risks



Adaptation policy instruments in EEA member countries 2022

- More comprehensive **legislation** and improved **implementation**
- **Regular assessments** and tracking of progress towards 2050
- EUR 40-200 bn annual investment needs: **cost-effective solutions** urgently required
- Harnessing co-benefits of **nature and biodiversity restoration**
- **Leaving no-one behind** in adapting to climate change

European Climate Risk Assessment: helping build societal preparedness



Including:

- **Main report**
- **Executive summary** (input to planned Commission Communication)
- **Interactive data viewers**
- **Complementary technical background documents**

Policy objectives



to help identify **adaptation-related priorities** for the next policy cycle



to inform the **further development of EU policies** in climate-sensitive sectors



to support the **prioritisation of adaptation-related investments** for the next Multi-annual Financial Framework



to provide a reference for **national and regional climate risk assessments** (incl. for the EU Mission on Adaptation)

Thank you

Leena Ylä-Mononen | European Climate Stocktake | 27 October 2023



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Justyna Mazurkiewicz

LIFE project

Regional Action Plan for Climate &
Energy for the Malopolska Region





LIFE-IP EKOMALOPOLSKA

IMPLEMENTATION OF THE REGIONAL ACTION PLAN FOR CLIMATE AND ENERGY
FOR THE MALOPOLSKA REGION

Justyna Mazurkiewicz

Project Manager of the LIFE-IP EKOMALOPOLSKA

Malopolska Region (Poland)



Regional Action Plan for Climate and Energy for the Malopolska Region

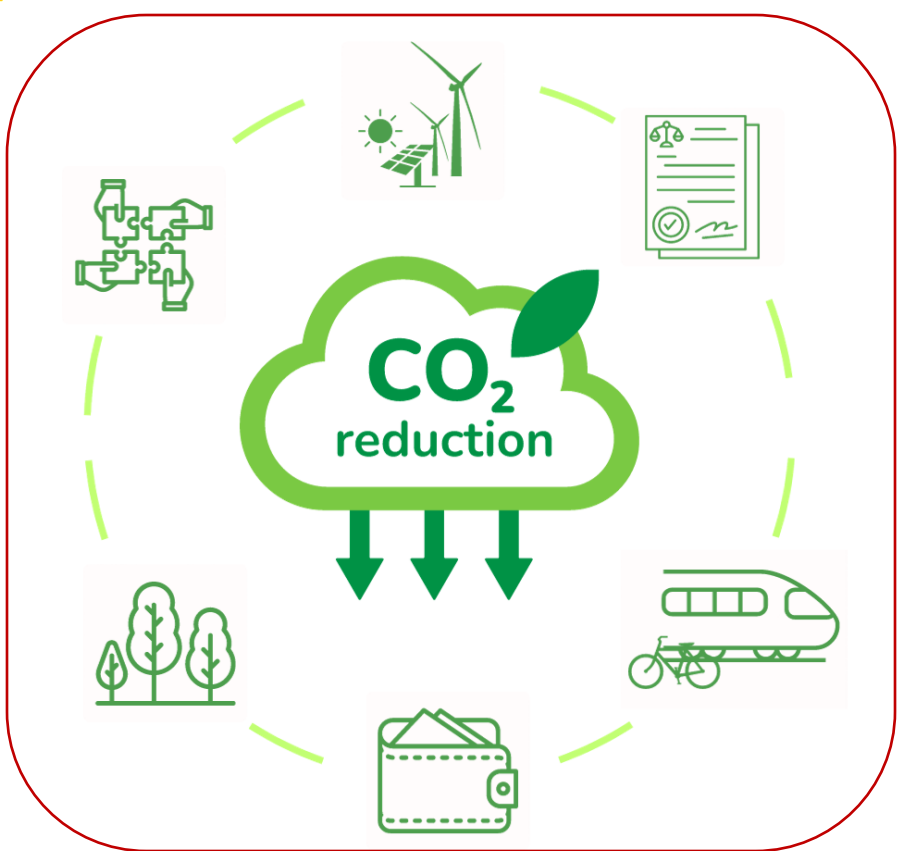
2023



2030



2050



40% GHG ↓

32% RES ↑

32,5% EE ↑



LIFE-IP EKOMALOPOLSKA

LOCATION: Malopolska Region, Poland

BUDGET INFO:

Total budget: 16 407 518 €

Complementary funds: 1 billion €

DURATION: 01/01/2021 – 31/12/2030

PARTNER:

Coordinating Beneficiary: Malopolska Region

Associated Beneficiary(ies): *Silesia Region, AGH University of Science and Technology, European Clean Air Centre, Brandenburg University of Technology Cottbus, Wuppertal Institute, 21 counties*



LIFE-IP EKOMALOPOLSKA

MAIN GOAL

- **full implementation of the RAPCE and the mobilization of available EU and domestic funds**
- strengthening the implementation of the RAPCE, NECP and the European Green Deal
- low-carbon transformation of the heating appliance market
- wide scale change of behavioural attitudes
- transfer of good practices to other Polish and European regions



COOPERATING UNITS

NATIONAL

Ministry of Climate NGO

National Fund for Environmental
Protection and Water Management

INTERNATIONAL

Platform for Coal Regions in Transition

ERRIN

NGO

Mission EU

REGIONAL

Regional Fund for Environmental
Protection and Water Management

Malopolska Regional Development Agency

SCIENCE UNITS

University of Agriculture

Cracow University of Technology

Jagiellonian University

BUSINESS



ORLEN Południe



**GRUPA
AZOTY**



TAURON

LOCAL

Municipalities in Malopolska NGO

The Agency for Restructuring
and Modernisation of Agriculture

OTHERS

Installers of heat, cold and power
generation equipment

Trade unions

LIFE-IP EKOMALOPOLSKA

REGIONAL EXCELLENCE CENTRE

- support for low-carbon transformation projects (5)
- knowledge base, expert opinions, analyses (20)
- support for counties in intersectoral integration of climate objectives (21)
- training, workshops, postgraduate studies and study visits for counties and municipal officials (50)
- knowledge transfer (30)

Strengthening the capacity and involvement of local governments in climate action.



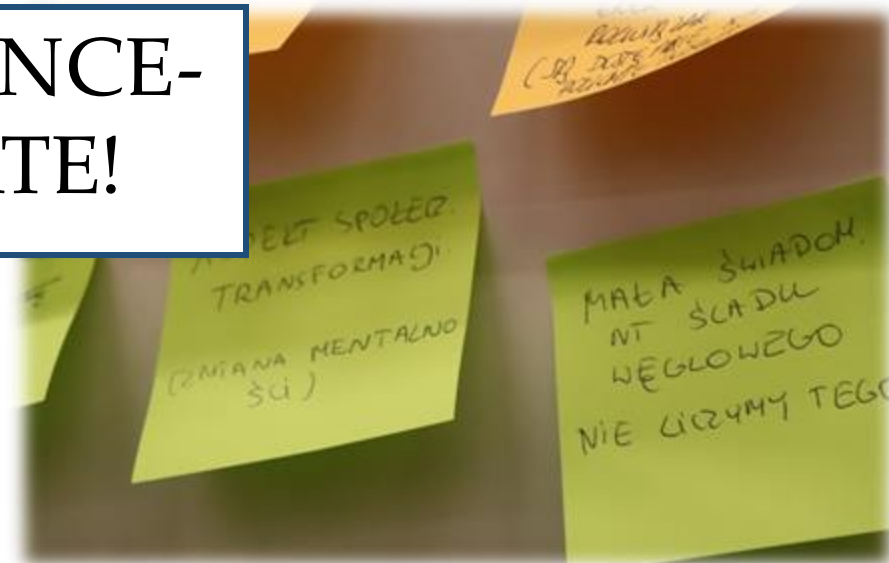
LIFE-IP EKOMALOPOLSKA

ADMINISTRATION-BUSINESS-SCIENCE- SOCIETY – FOR A BETTER CLIMATE!

- **40 experts** from Administration, Business, Science and NGOs
- **5 discussion** groups:
energy transition, water management, circular economy, climate education, cooperation



Identification of needs and key **problems** in the field of climate action in the perspective of 2030 and 2050.



LIFE-IP EKOMALOPOLSKA

LOCAL EXCELLENCE CENTRE

24 climate and environment advisors

- professional advisory for residents (26 000),
- cooperate with opinion-making groups (140)
- conduct local behavioural change campaigns (86)
- obtaining funds for real investments for residents

2 business advisors

- professional advisory for SMEs (220)
- providing training sessions for SMEs (11)
- obtaining funds for environmental action for SMEs,



LIFE-IP EKOMALOPOLSKA

REGIONAL AND LOCAL AWARENESS CAMPAIGN

Climate for Generations
(reaching over 2 million inhabitants)

Malopolska Climate Day
(over 80,000 residents, nearly 50,000 trees planted)

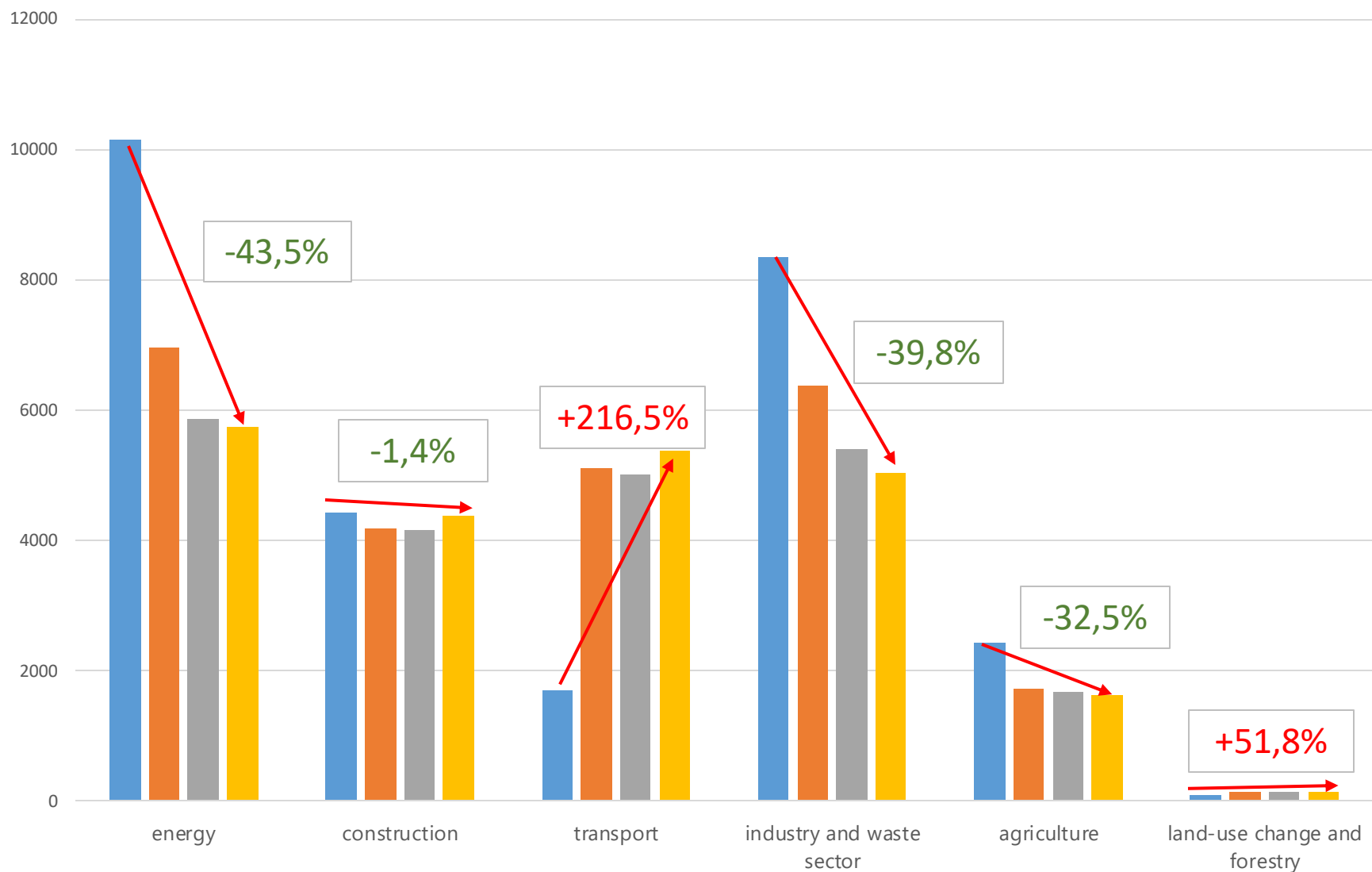
Green Week in the Malopolska Region
(21 schools, 180 students in each session)

grants for NGOs

Malopolska Education Cloud
(14 courses, 180 students in each session)



LIFE-IP EKOMALOPOLSKA



■ Share of GHG emissions in the Malopolska Region in 1990
 ■ Share of GHG emissions in the Malopolska Region in 2018
■ Share of GHG emissions in the Malopolska Region in 2020
 ■ Share of GHG emissions in the Malopolska Region in 2021





-eko-
MAŁOPOLSKA
for CLIMATE



THANK YOU FOR ATTENTION!

Justyna Mazurkiewicz

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-eko-
MAŁOPOLSKA
for CLIMATE



klimat.ekomalopolska.pl

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Gonzalo Sáenz de Miera
Global Director of
Climate Change & Alliances,
Iberdrola



Iberdrola's Climate Transition Plan

Urgency, opportunities and the key role of policies and alliances

Gonzalo Sáenz de Miera
Director of Climate Change and Alliances, Iberdrola

The European Climate Stocktake

27/10/2023

URGENCY TO ACT: 1.5°C GOAL IS STILL AT REACH BUT INCRESINGLY DIFFICULT

URGENCY

- Current current course of action is much slower than what we need to **achieve the goals of the Paris Agreement**.
- The **impacts of climate change are intensely increasing**, and science tells us that those will multiply much faster.

Keeping 1,5°C alive is still feasible

- But t it is increasingly difficult: the **window of opportunity narrows rapidly**.

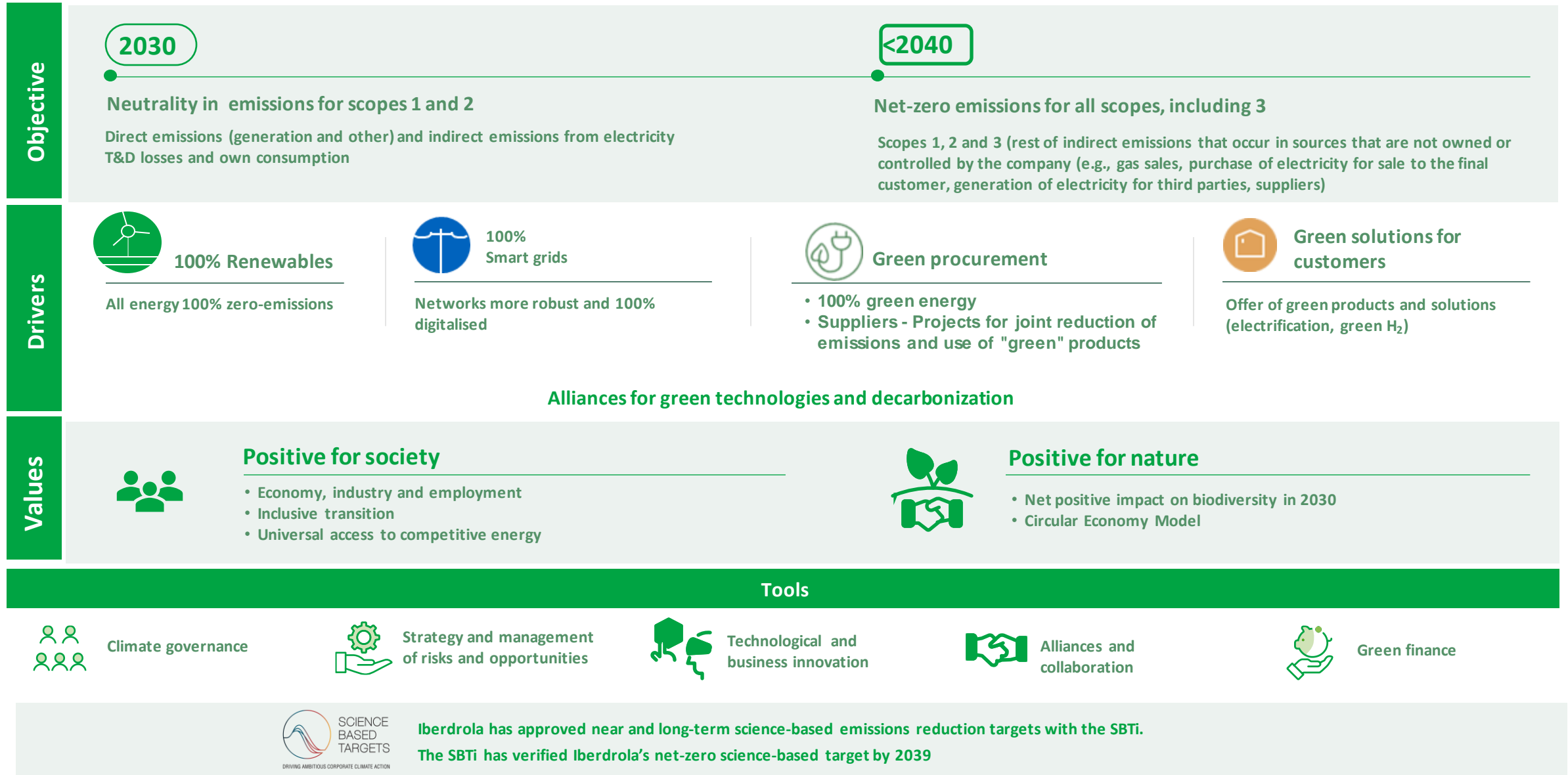
ACTION

- We need **fast and big changes**, specially in the **energy sector**.
- From firms, we need to act on all four As: **Ambition, Action, Advocacy and Accountability**.

IBERDROLA CLIMATE ACTION PLAN ALIGNED WITH INTEGRITY MATTERS REPORT –



KEY ELEMENTS



**Calculated as logical terminal*

We have the technologies to decarbonize the energy sector: we need policies, social acceptance and alliances

The moment of truth

- In the energy transition, which in addition to avoiding worse climate scenarios, can generate enormous opportunities for the EU.

We have the technology

- For rapid decarbonization of the energy sectors: renewables and networks for a fully decarbonization power sector and electrification

Permitting and social acceptance

- To speed up the energy transition we need faster permitting and social acceptance, that will be key.

Alliances

- To achieve these goals, we all need to work together in this direction, administrations, companies, banks, civil society and foundations, along with the importance of alliances: More alliances, more ambitious, more effective.

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Johan Börje

Innovation Fund Project

BECCS - Bio energy with carbon
capture & storage



Beccs Stockholm

NEGATIVE EMISSIONS BY STOCKHOLM EXERGI

“How do we get there”

Climate Stocktake on
scaling permanent removals

Johan Börje

2023-11-23

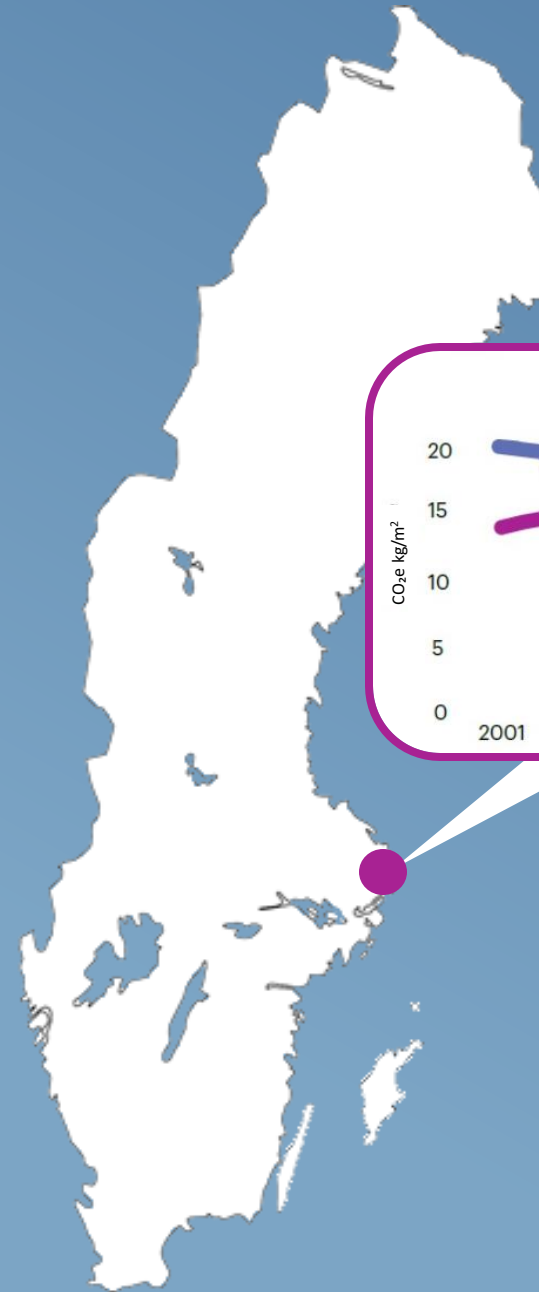


This project is co-funded by the
European Union's Innovation Fund
under grant agreement no 101051202

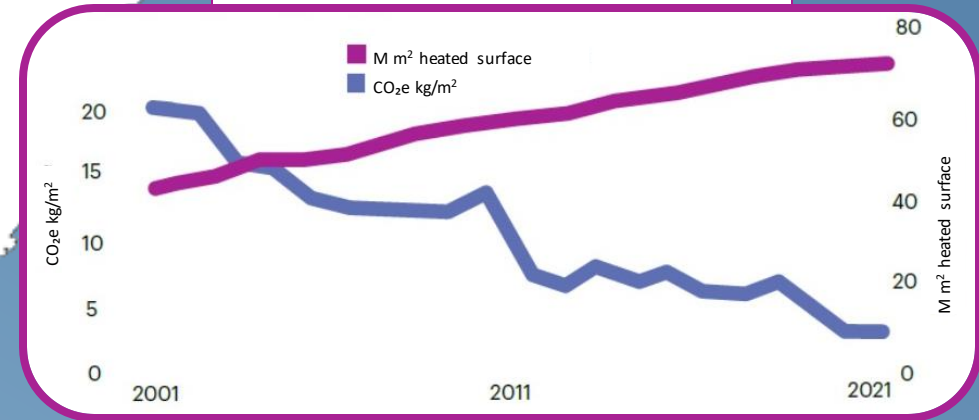


Stockholm Exergi

- District heating and cooling to 12 000 buildings and power to the electrical grid, totaling 10 TWh
- 50% owned by City of Stockholm
- €700 m turn-over
- Recent phase out of last coal-fired plant; now 99 per cent of production from recovered, reused and renewable sources
- Next step: Become EU's largest supplier of CO₂ removals with permanent storage



Stockholm's decoupling of growth and fossil emissions for heating



This project is co-funded by the European Union's Innovation Fund under grant agreement no 101051202

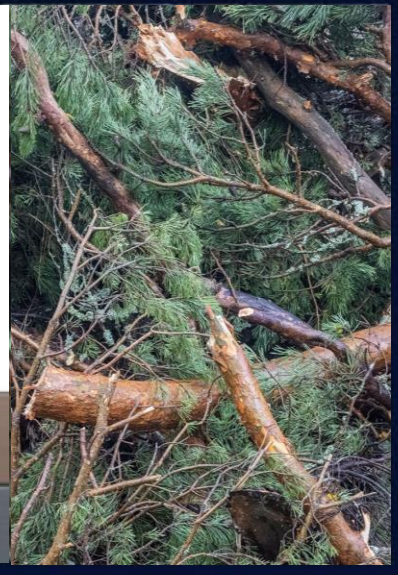
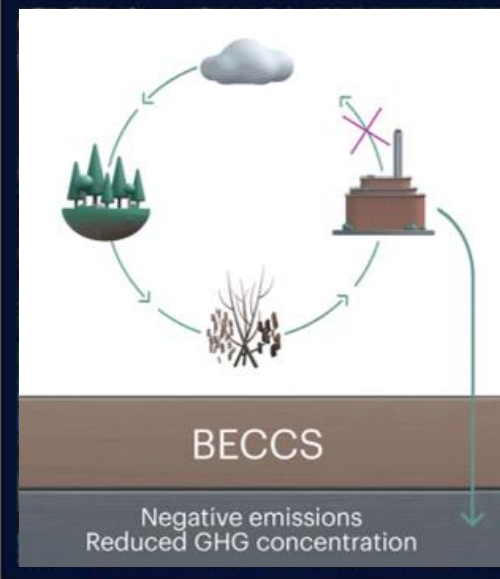


BECCS by Stockholm Exergi

Removal of 800 000 tons CO₂ per year
Heat recovery to district heating network – no energy loss
Sustainable biomass. No additional outtake
Proven and environmentally friendly capture technology
High concentration of CO₂, around 19%. 90-95% capture



EU Innovation Fund
Swedish state aid – Reversed auction
Sales of Carbon Removal Certificates to VCM



Challenges for scaling removals with BECCS

Technical value chain

- Catch 22 – Carbon Capture companies need T&S for FID, and T&S companies need CC volumes for their FID
- All building-blocks sufficiently high TRL, but no off-the-shelf products for large scale implementations and never been put together in a full commercial chain before

Business and funding

- New contractual set-ups with dependence on other parties in the value chain make allocation of risks and rewards challenging
- Still trepidation surrounding the purpose of funds contributed by institutions and governments. A clearer strategic intent would help – be inspired by the business approach taken by the US
- In the absence of compliance markets, Public funds needed to drive down the price to increase private sector net-zero demand for CRUs
- High interest from financial actors to participate in funding, but uncertainties remain

Standards and Accounting

- Lack of methodology, including for sustainable biomass, being addressed and will be resolved in time
- Lack of clarity on relationship between reductions and removals in nations' climate targets creates unnecessary pushback against removals. Make it clear for what and when they will be used in the EU
- Make clear the different roles of land-based removals and permanent removals
- Double claiming/Co-claiming debate must be settled – significant impediment for large off-take agreements

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Camilla Jain Holtse

Vice President, Head of Public
Policy & Regulatory Affairs,
A.P. Moller-Maersk



Name giving of the
world's first
methanol vessel,
LAURA MÆRSK



Ursula von der Leyen, the president of the European Commission, is the godmother of Maersk's new green methanol-powered feeder vessel.



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THANK YOU!