EU Policy and Support for Developing CCUS

Baltic Carbon Forum (BCF 2020)

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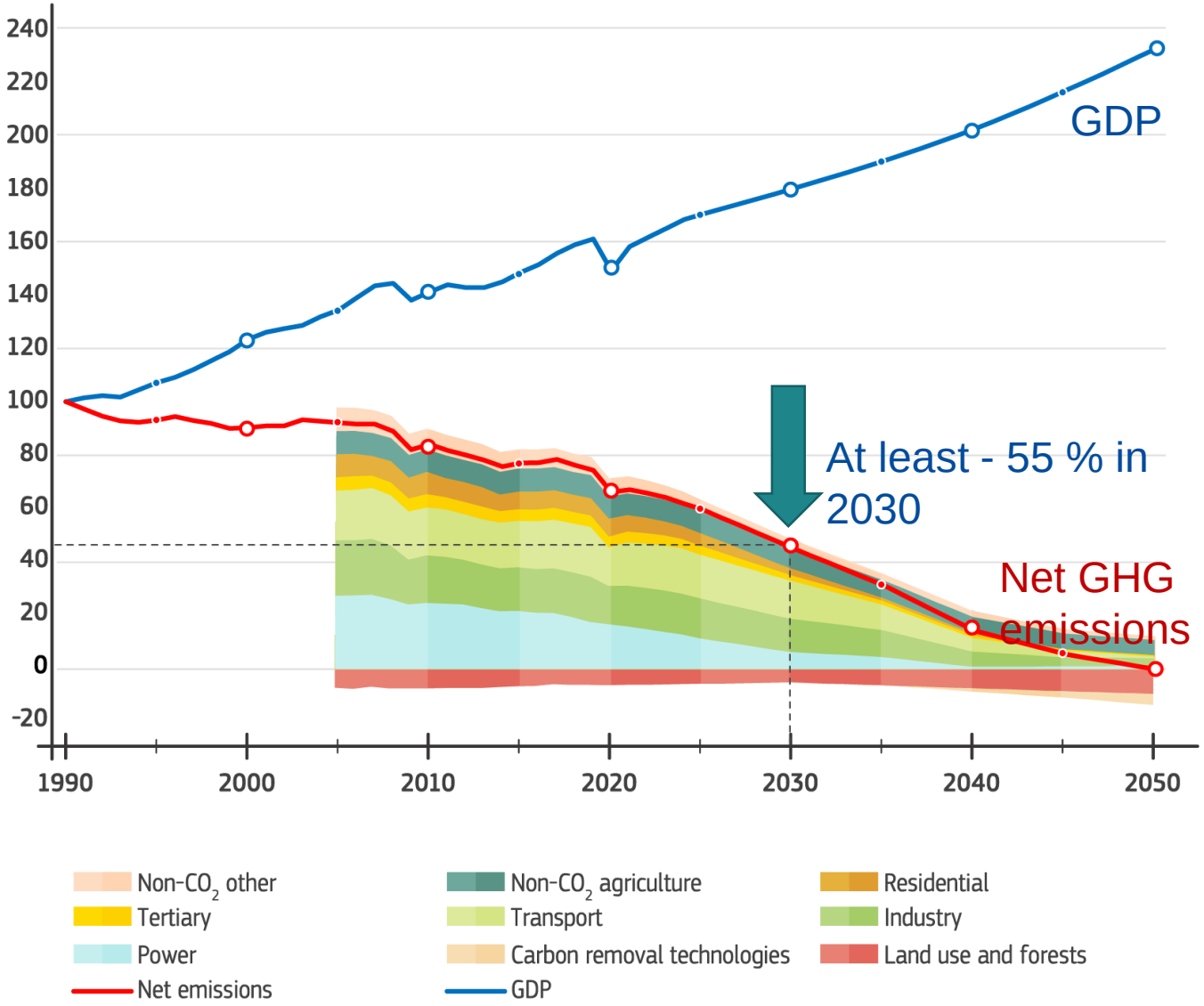
Climate action

Challenging times

- **COVID-19 health crisis ongoing.**
- Unprecedented European response to address economic fall-out.
- **Global warming already reached 1.1°C**, impacts increasingly obvious, IPCC reports on 1.5°C, land and cryosphere warns about future impacts. Science sees increasing risks.

EU pathway to climate neutrality



- EU net GHG emissions and removals in 2019 reduced by an **estimated 25%** compare to 1990 while **GDP grew with 62%**.
- Existing targets **only achieve around 60%** greenhouse gas reductions in 2050.
- Existing climate target and legislation increase the **risk for carbon lock-in** and require back loading of action after 2030 to achieve climate neutrality by 2050.
- **Clearer and stronger investment signals** are urgently needed for today's investment planning and decisions to be coherent with the transition to climate neutrality.

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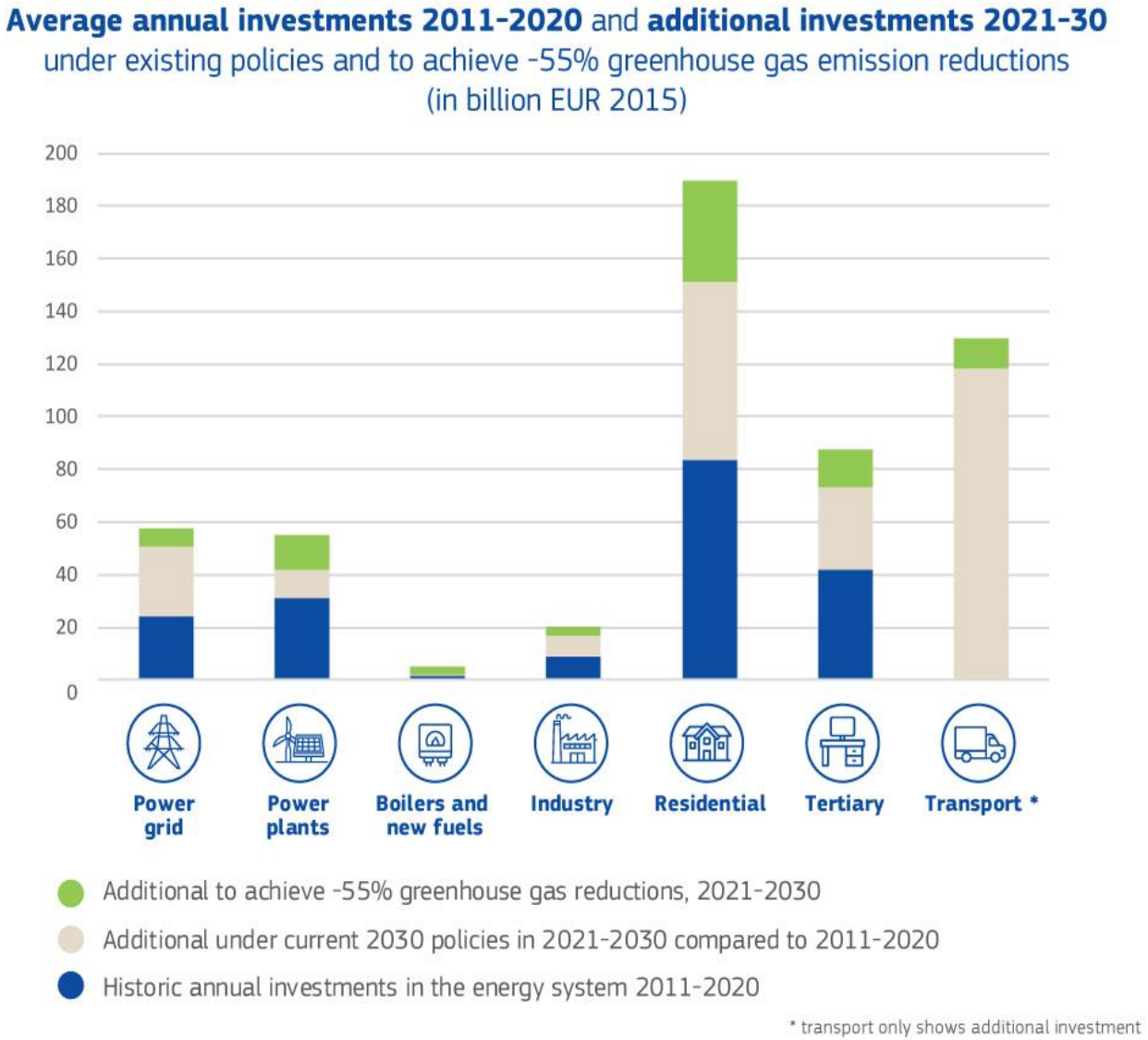
Raising the ambition for 2030

- Europe – first continent to become climate neutral in 2050
- Create legal certainty and predictability for business:
  - The target of at least 55% net greenhouse gas emissions reductions by 2030 compared to 1990 to be enshrined in the Climate Law
  - All sectors will need to contribute: Legal framework to be updated by June 2021: EU ETS, Effort Sharing Decision, LULUCF, Renewable Energy & Energy Efficiency, CO_2 vehicle efficiency standards, fluorinated gases, Carbon Border Adjustment Mechanism
- Real investments need to start now: use the opportunities of Next Generation EU and Recovery and Resilience Plans *in addition* to existing funds
- Whole of society will need to take an active role: Climate Pact
- Rally international support in the coming months and years to raise ambition

Spurring investments & innovation



- Business as usual investments to reach existing target in a growing economy increase by € 260 billion per year compared to the past decade.
- Going further to 55% GHG leads to additional € 90 billion per year.
- Order of magnitude unchanged in COVID scenario.

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Economic and social benefits

- **Positive impacts on GDP and employment**, in particular where the economy is performing below capacity or with revenue recycling to lower distortionary taxes.
- **EU fuel import bill** saving of € 100 billion over the period 2021-2030, up to 3 trillion by 2050.
- Further **decrease in air pollution**, reaching a total reduction of 60% by 2030 compared to 2015. Reduced health damages compared to 2015 levels by at least € 110 billion.
- Investments to **modernise the economy**, increase opportunities for **clean technology leadership** and for **gaining competitive advantages**.
- **More challenging in Member States and regions with a higher share of fossil fuels**, higher energy intensity and lower GDP per capita. Low-income households risk bearing a higher burden.
- **Renovating Europe's buildings** not only lowers energy bills and GHG emissions, also improves living conditions and creates local jobs.

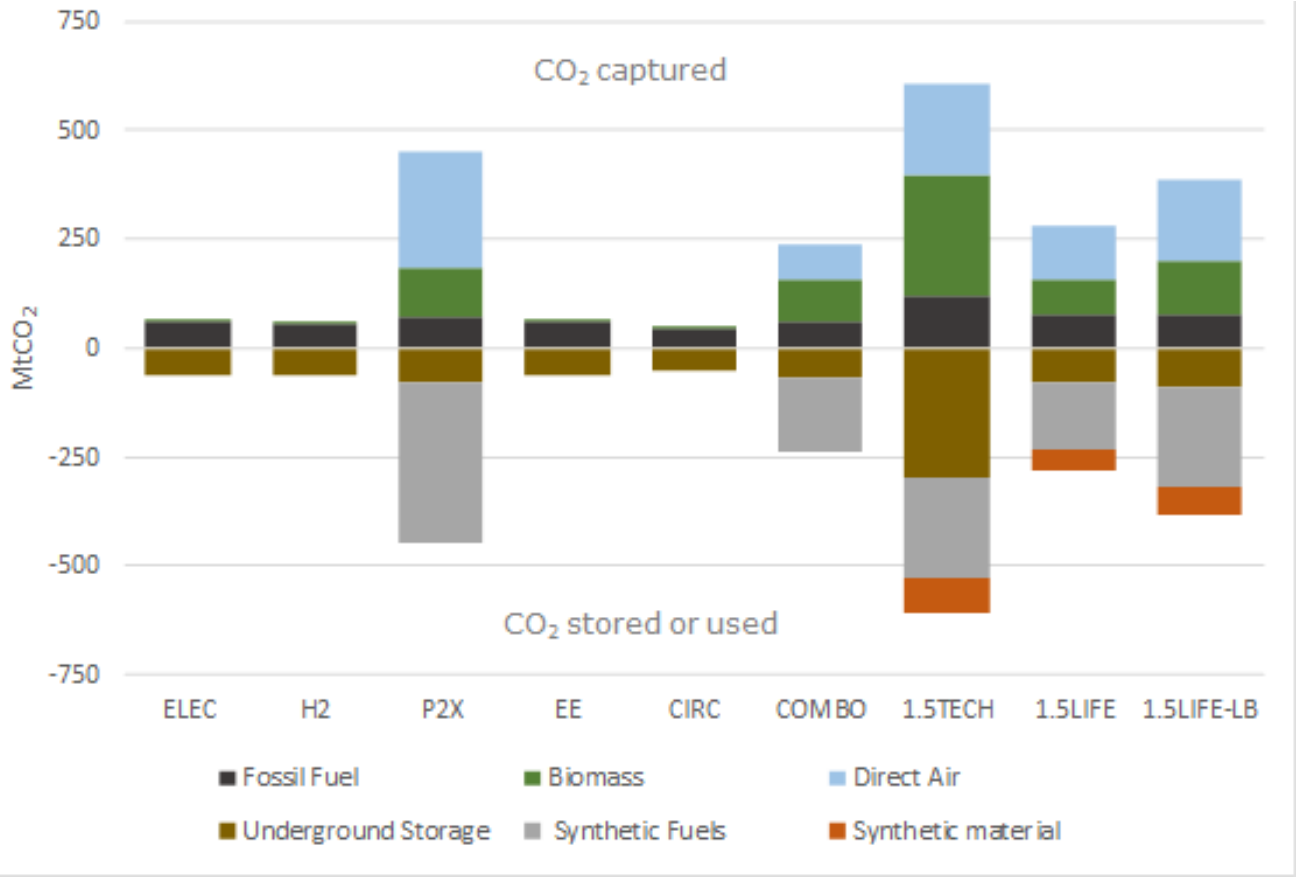
Sectoral transition (1)

- **Decarbonisation of the energy system is a priority:** 75% of EU greenhouse gas emissions
- **60% emission reductions by 2030 or more** compared to 2015 in buildings and power sector from rapid penetration of renewable energy, use of the energy efficiency first principle, electrification and energy system integration
- Use of fossil fuels will fall substantially. Coal for instance decreases by more than 70% compared to 2015
- By 2030, the **share of renewable electricity production will double to 65% or more**
- Industry and buildings can subsequently decarbonise, with **heating and cooling reaching a 40% renewable share by 2030**

Sectoral transition (2)

- **Clean hydrogen** crucial for decarbonising heavy-duty transport and, through its derivatives, the aviation and maritime sector.
- **Industry could decrease emissions by 25% by 2030** compared to 2015 through a combination of best practices, use of waste heat and increased electrification.
- **Projected increases in bioenergy use by 2030 are limited**. Bioenergy production best to come from better use of biomass wastes and residues, sustainable cultivation of energy crops, replacing the production of first generation food-crop-based biofuels.
- To prepare for a transition towards climate neutrality post 2030**, zero- and low-carbon technologies will need to be kick-started: tested at scale this decade**.

Scenario Analysis Results for CCUS: Vision for a Clean Planet by 2050



- CCS will be required to reduce emissions of any remaining fossil fuels use (power sector, industry)
- Necessary for certain hard to decarbonize industrial processes
- CCS combined with biomass is required to generate negative emissions if we are to achieve climate neutrality
- Storage in materials (e.g. in plastics) is also seen as an option
- CCU fuels in some scenarios

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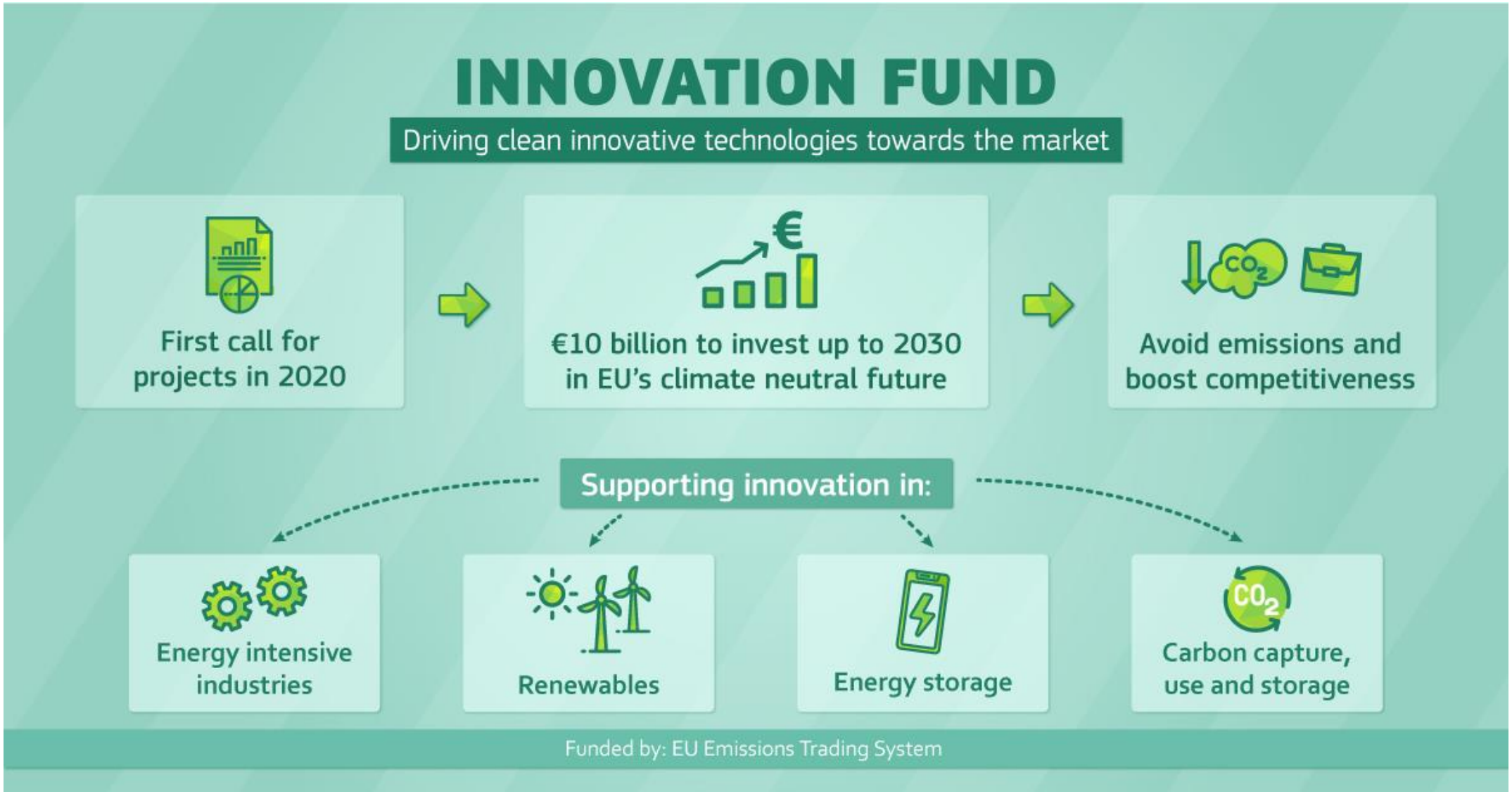
EU Policy for CCUS

- Regulatory certainty (2030) and long-term perspective (2050)
- CCS Directive: ensures CCS is done safely for the environment and human health
- EU ETS: allowances do not need to be surrendered when CO2 is geologically stored (not the case with most CCU)
- CCU fuels are encouraged through the Renewable Energy Directive (RED2) as of 2021
- EU certification systems based on the GHG performance for low-carbon basic materials and for carbon removals will be developed
- Dedicated funding: Horizon Europe, Innovation Fund, Connecting Europe Facility



https://ec.europa.eu/clima/policies/innovation-fund_en
#InnovationFund

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Key features

INNOVATION FUND
First call for large-scale projects

Volume of at least EUR 10 billion until 2030 (at EUR 20 carbon price)

Support of up to 60% of additional costs related to innovative technology

Annual calls for large-scale and small-scale projects (CAPEX < EUR 7.5 million)

Financed from the revenues of the EU Emissions Trading System

Support of additional capital and operating costs (up to 10 years)

First call open with a volume of EUR 1 billion for large-scale projects

Single applicant or consortium

Project start possible after application for first stage

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Calendar – 1st large-scale call

INNOVATION FUND
First call for large-scale projects

	3 July	**Launch First Call** EUR 1 billion
Webinar GHG emission avoidance & FAQs	15 Sep	
Clean Tech Financing Conference	25 Sep	
	29 Oct	**Submission 1st stage**
Launch of call for small-scale projects EUR 100 million	1 Dec	
	Q1 21	**Invitation 2nd stage**
	Q2 21	**Submission 2nd stage**
	H2 21	**Grant Award**

Thank you

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