



Status of latest European regulations

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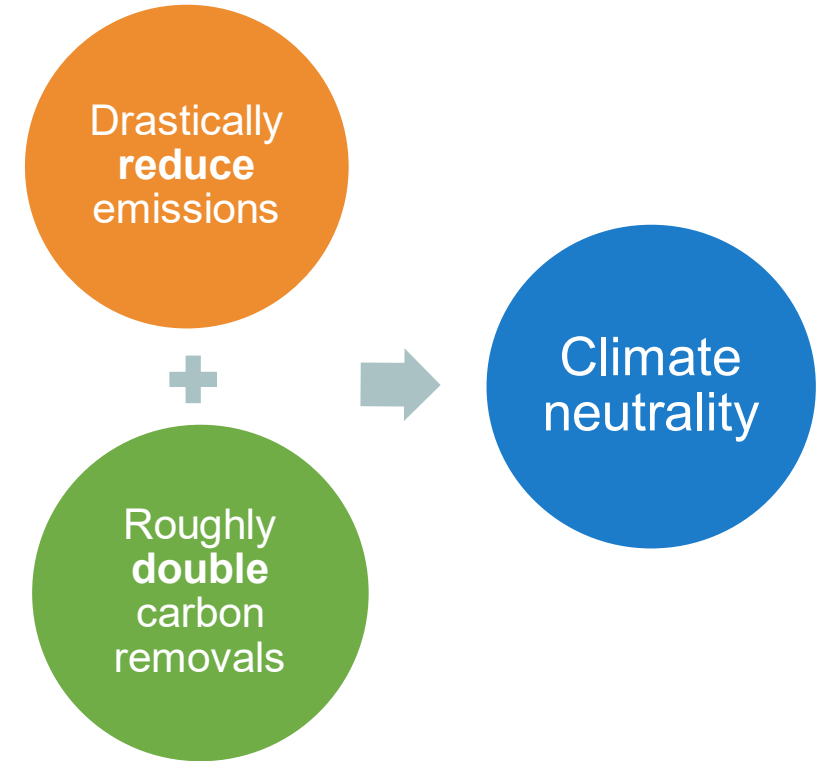
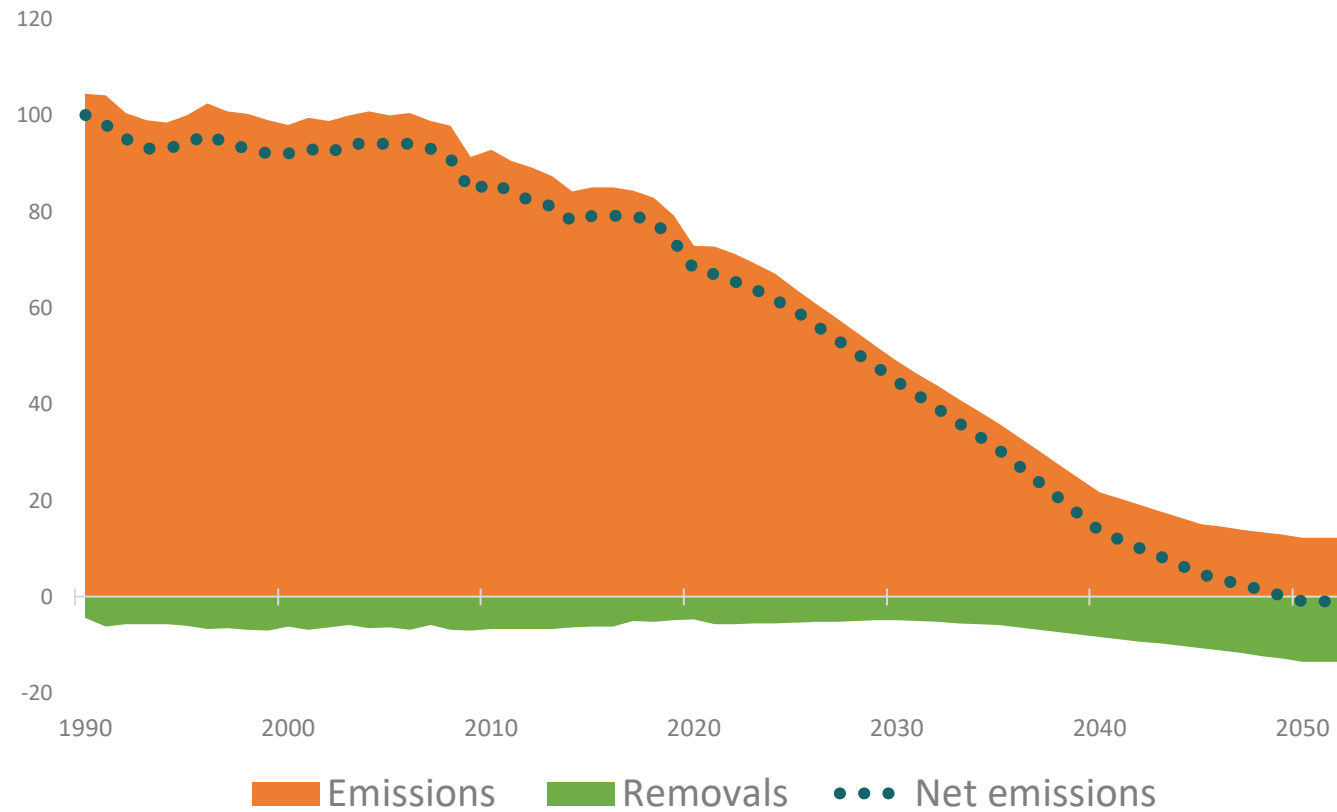
ESA UNCLASSIFIED - For ESA Official Use Only



Main EU legislation linked to climate and EO

- Land use / LULUCF in EU: Reg 2018/841 (revised May 2023)
<http://data.europa.eu/eli/reg/2018/841/2023-05-11>
 - Deforestation Regulation: Reg 2023/1115
<http://data.europa.eu/eli/reg/2023/1115/oj>
 - EU Common Agriculture Policy: Reg 2021/2116 <https://eur-lex.europa.eu/eli/reg/2021/2116>
 - **Proposal** on Carbon Removal Certification (under co-legislation)
<https://europa.eu/!9RFTMc>
 - **Proposal** on Directive on Soil Monitoring and Resilience
<https://europa.eu/!66f3r4>
- Forthcoming:*
- **Proposal** on (EU) Forest Monitoring

The EU Pathway to climate neutrality



GHG projections for climate neutrality
1990 GHG emissions = 100
Source: EU 2030 Climate Target Plan

Climate policy instruments under Fit for 55



Pricing

Emissions Trading System (ETS1)
Strengthened carbon price for fossil fueled electricity and centralized heat

New: ETS2
caps and puts a price on all remaining building, road transport and industrial combustion emissions

Energy Taxation Directive
aligns minimum tax rates with Green Deal objectives

CBAM
Carbon Border Adjustment Mechanism



Targets

Effort Sharing Regulation
sets yearly MS emission targets (incl. ETS2 sectors)

Land Use, Land Use Change and Forestry (LULUCF) Regulation
sets MS net removal targets

Renewable Energy Directive
targets support uptake in buildings and transport

Energy Efficiency Directive
e.g. binding MS energy savings obligations



Rules

CO₂ emission standards for cars, vans and heavy-duty vehicles

New infrastructure for alternative fuels, ReFuelEU aviation & FuelEU maritime

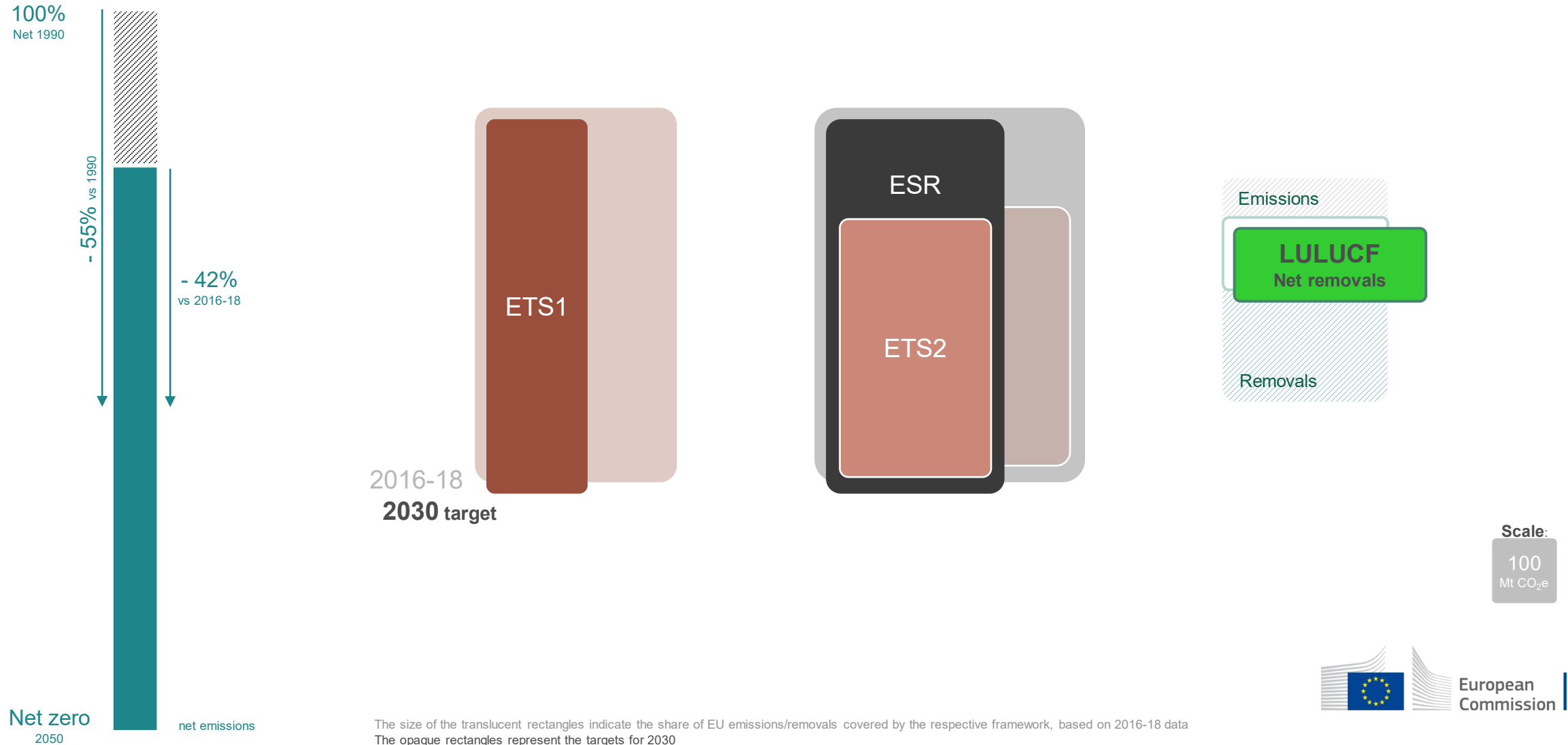
Energy Performance in Buildings Directive
provides minimum standards and renovation plans

F-gas & Ozone-depleting Substances Regulations
incl. for heat pumps

Promote innovation, build solidarity and mitigate impacts for vulnerable citizens - notably by channeling revenues through the new **Social Climate Fund** and the enhanced Modernisation and Innovation Funds

Support Measures

ETS, ESR and LULUCF in 2030 – a dynamic relationship



Carbon removals on land – two instruments

Land Use, Land Use Change and Forestry (LULUCF) Regulation

- Ambitious **Member State** targets for net carbon removals in soils, forests and wood products: increase to **310 Mtonnes CO₂e net removals by 2030, for the EU**

Sustainable Carbon Cycles, Certification proposal – ambition and implementation: Regulation proposal

- Voluntary instrument to enable more carbon removals
- **Carbon farming** should *contribute to* the 2030 target achievement for LULUCF

Key take-aways of the LULUCF revision: Regulation (EU) 2023/839*

Higher ambition

- Explicit Member State targets - for first time
- Full territorial scope from 2026 onwards

Better monitoring

- Move to *Tier-2* and *Tier-3* estimates, and *geographically explicit* (use of earth observation)

Improved governance

- ‘Corrective action’ process
- Much stronger use of GHG inventories

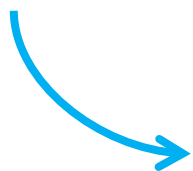
EEA in the lead for implementation

- Reinforced team, monitoring, Earth Observation (*inter alia* Copernicus) and modelling tools

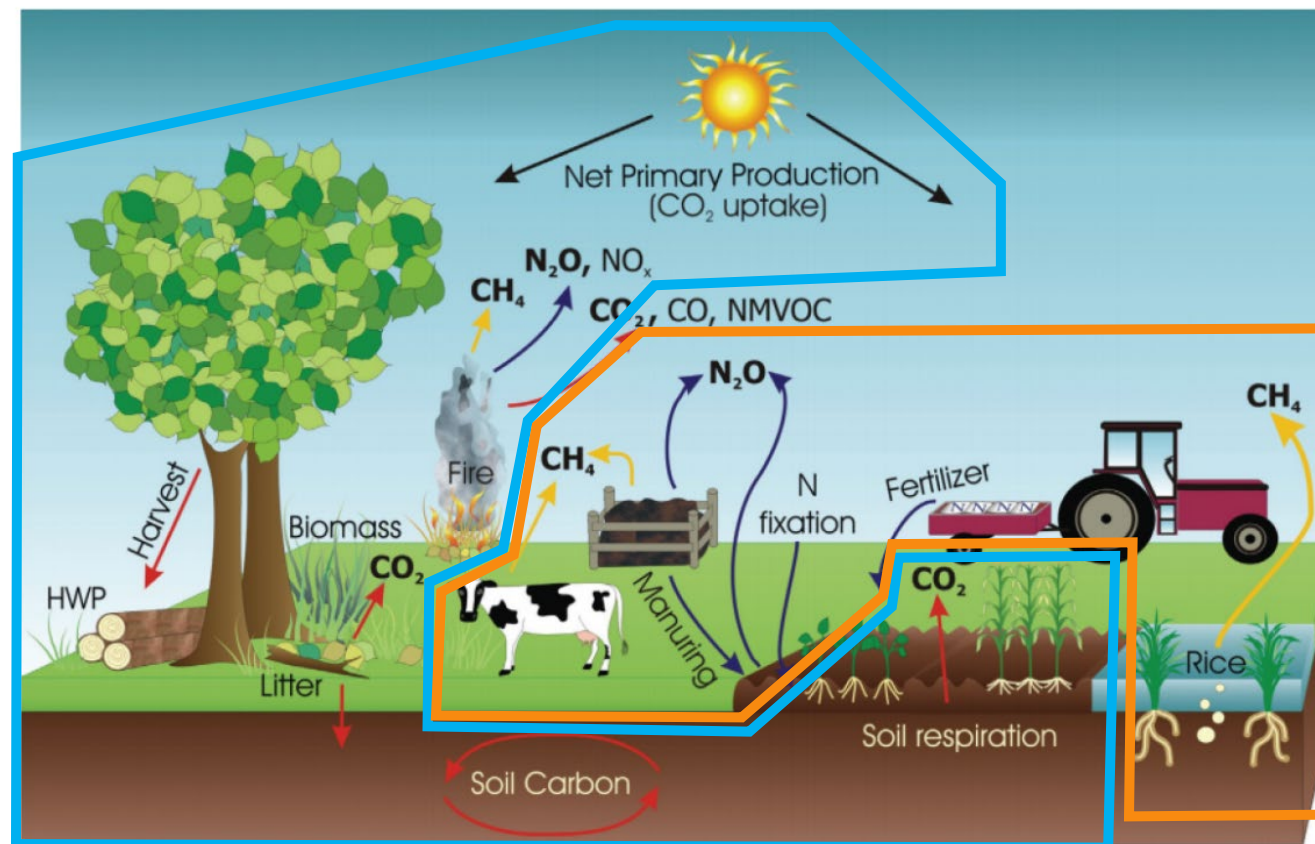
* <http://data.europa.eu/eli/reg/2023/839/oj>

Land use: complex system, complex framework

Land Use, Land Use Change and Forestry (LULUCF): mainly CO_2



Partly human induced (strongly linked to global natural carbon cycle)

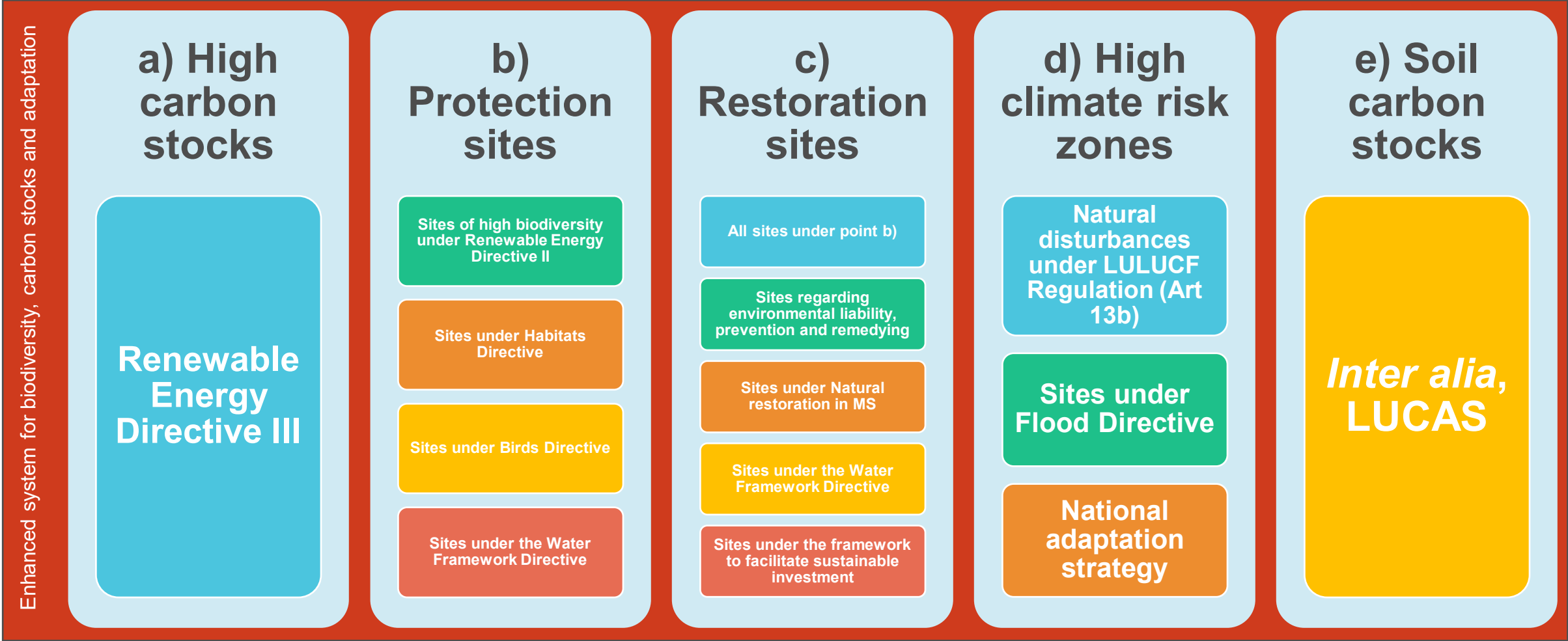


AGRICULTURE *non- CO_2* (CH_4 , N_2O) – in the Effort-Sharing Regulation (ESR)



Mainly human-induced
=> More readily quantifiable

Enhanced LULUCF monitoring system



Biodiversity Strategy, Nature Restoration Law

Soil Monitoring and resilience proposal

Carbon farming – focusing action on land



Afforestation and reforestation
according to ecological principles



Targeted conversion of **cropland to fallow**, or of set-aside areas to **permanent grassland**



Use of **conservation tillage, catch crops, cover crops** and increasing **landscape features**



Agroforestry
and other forms of mixed farming

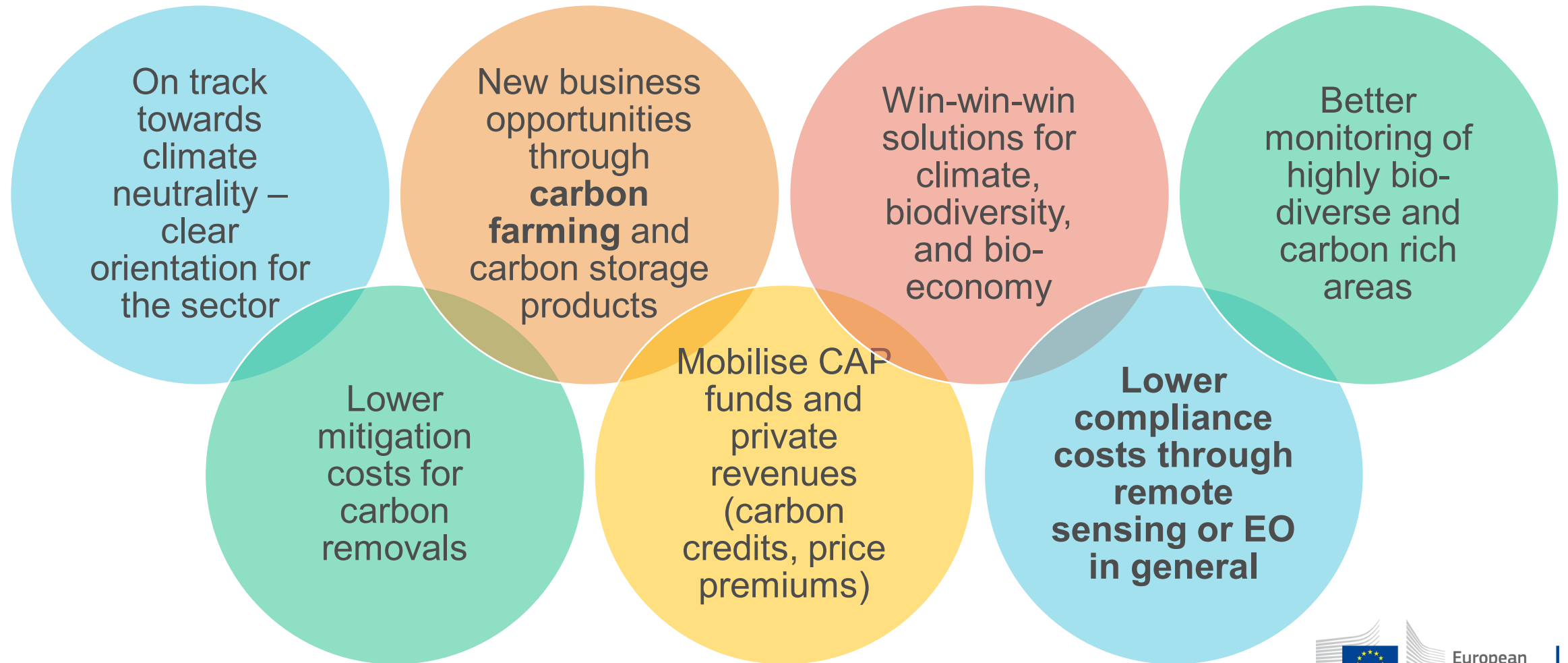


Restoration, rewetting and conservation of **peatlands and wetlands**

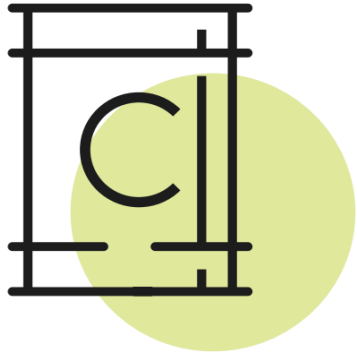


Blue carbon: coastal wetlands, regenerative aquaculture, marine permaculture

Environmental benefits *and* opportunities of **carbon farming** and land use targets



Carbon removal activities



PERMANENT STORAGE

E.g. Bioenergy with Carbon Capture and Storage (BECCS), Direct Air Carbon Capture and Storage (DACCS)

Industrial leadership for climate-neutral technologies

At least 5 MtCO₂ removed in 2030, and up to 200 MtCO₂ in 2050

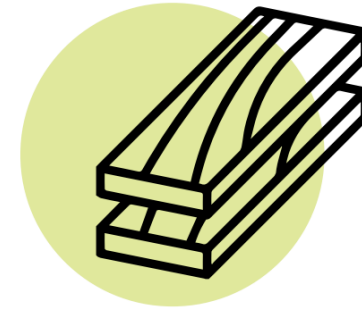


CARBON FARMING

*Soil and forest activities in the scope of the land-use “LULUCF” Regulation, including:
Peatland restoration,
agroforestry, sustainable forest management, soil carbon sequestration,*

Strong synergies with biodiversity

Contribute to LULUCF target of -310 MtCO₂ removals in 2030 and climate-positive bio-economy in 2050



CARBON STORAGE IN LONG-LASTING PRODUCTS

E.g. wood-based construction materials and other carbon-storing construction products

New European Bauhaus

QU.A.L.I.TY criteria for all carbon removals



QUANTIFICATION

Carbon removal activities are measured against a baseline and are net of supply-chain emissions



ADDITIONALITY

Carbon removal activities go beyond standard market practices and what is legally required to the operator



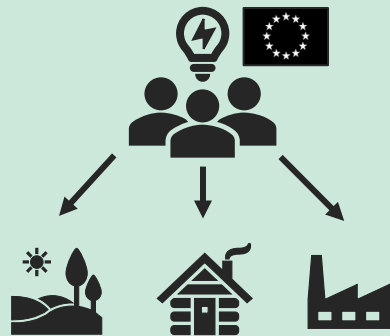
LONG-TERM STORAGE

Certificates clearly account for the duration of carbon storage and distinguish permanent storage from temporary storage



SUSTAINABILITY

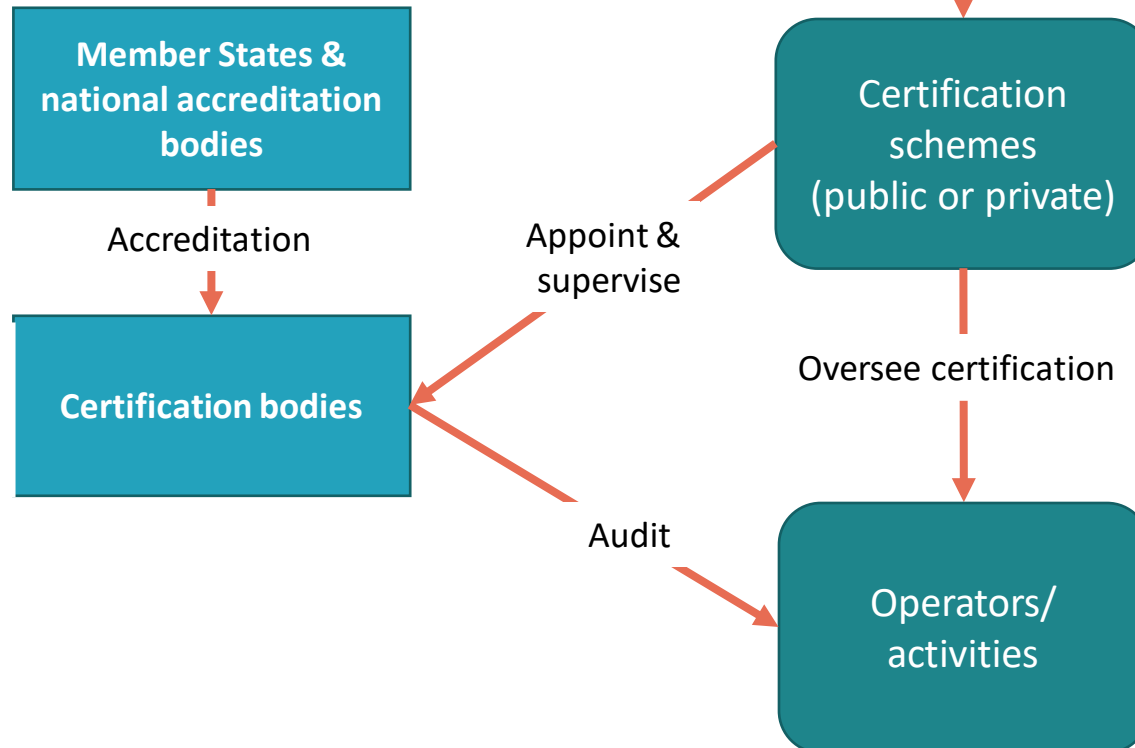
Carbon removal activities do not harm the environment or even benefit other environmental objectives such as biodiversity



To operationalise the EU quality criteria, the Commission, supported by an expert group, will develop **tailored certification methodologies** for the different types of carbon removal activities

Governance of the EU certification framework for carbon removals

- Accredit & control **certification bodies**
- Carry out certification **audits**
- Issue **certificates** of compliance



- Develops tailored **certification methodologies** through delegated acts, supported by expert group
- Recognises **certification schemes** (e.g. public or private entities tasked to implement/control the certification process)

- Manage the **scheme** (including internal monitoring)
- Appoint, train and supervise **certification bodies**
- Register **activities**
- Control certification **audits** and **certificates** of compliance
- Issue carbon removal **units**
- Manages public **registries**

- Apply for certification
- Monitor and report compliance with the quality criteria through the relevant certification methodologies

Thank you!

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LULUCF regulation revision: <http://data.europa.eu/eli/reg/2023/839/oj>

LULUCF Impact Assessment: <https://europa.eu/!NG7K6U>

Certification Removals Carbon proposal: <https://europa.eu/!8mGymM>



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