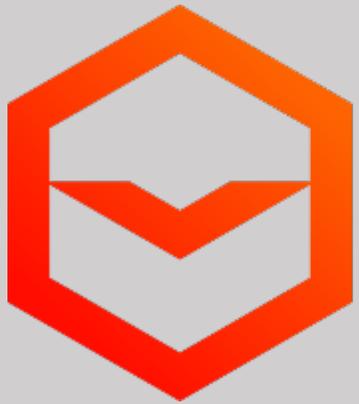


The Right Policy for Carbon Removals

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Policy Officer - Bioenergy Europe

24 May 2022 - Hiilensidonta 2022



NEGATIVE EMISSIONS PLATFORM

- NEP is a forum for organisations to collaborate on permanent removals of CO₂
- Bioenergy Europe and the other 20 members work together to
 - Improve political and public recognition of carbon removals
 - Collect and share the latest knowledge of carbon dioxide removals in Europe
 - Engage policy and civil society stakeholders

Negative Emissions Technologies

Biochar



**Bioenergy
Carbon Capture
and Storage**



**Enhanced
weathering**



Direct Air Capture



Storage in long lasting materials

Negative Emissions Technologies

Biochar



Bioenergy
Carbon Capture
and Storage



Verification



Permanence

Enhanced
weathering



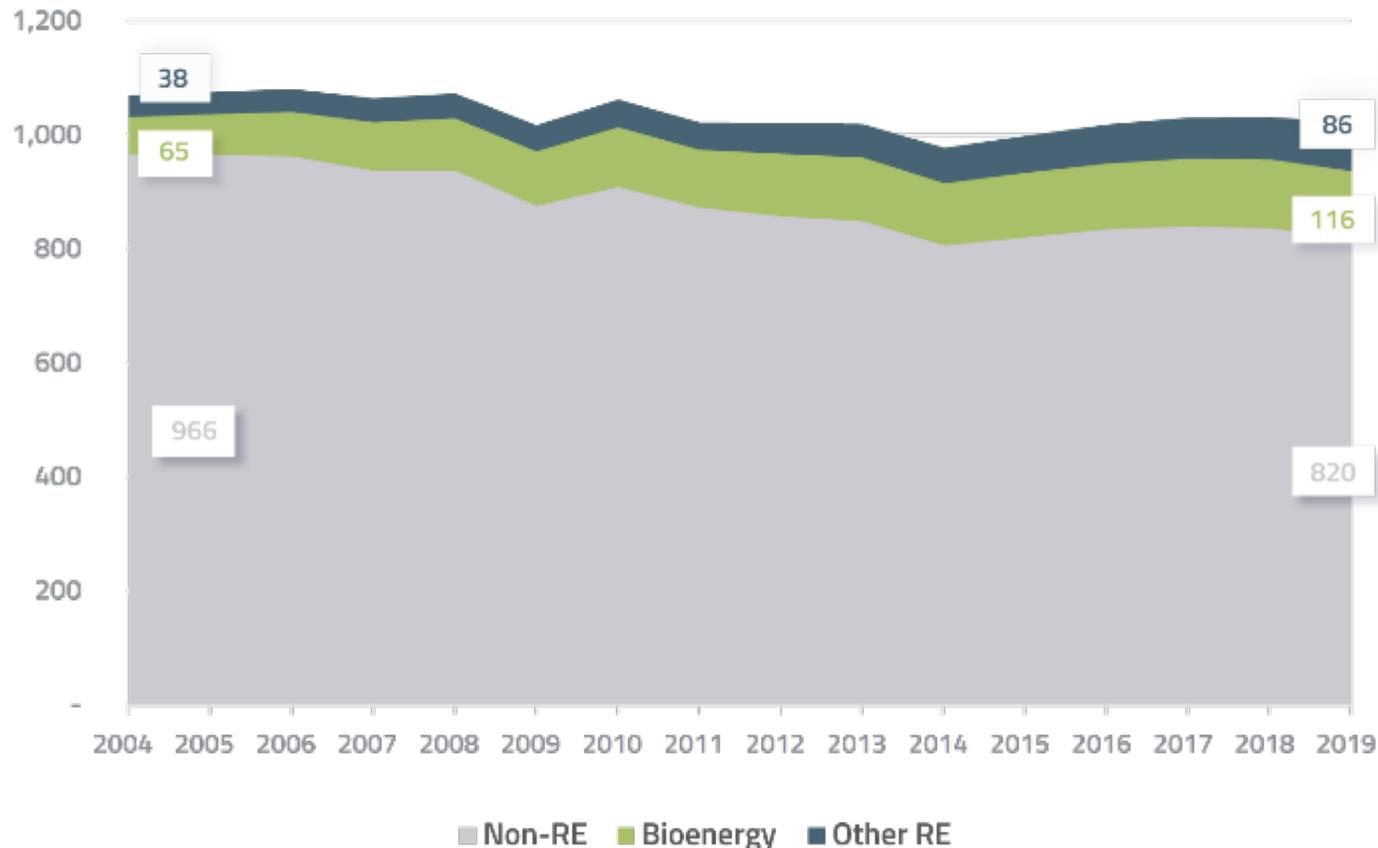
Direct Air Capture



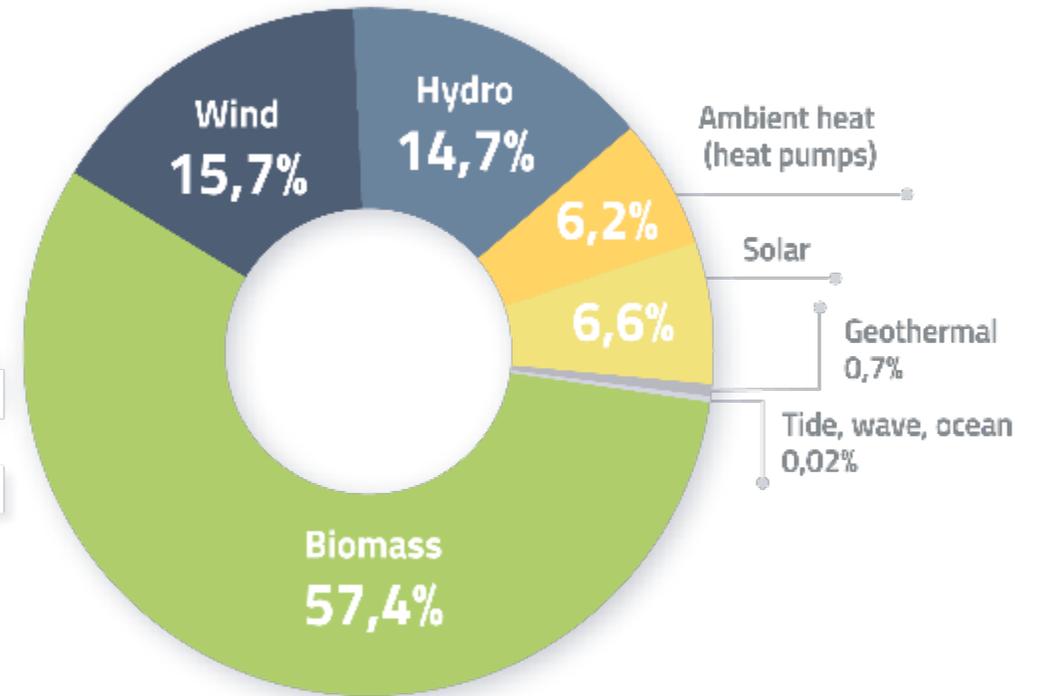
Storage in long lasting materials

Bioenergy is Europe's biggest source of renewable energy

Distribution of renewable final energy consumption in the EU27 in 2019 (%)



Distribution of renewable gross final energy consumption in the EU27 in 2019 (%)



Source: SHARES 2019, Eurostat

In 2019, bioenergy was 11,4% of total energy

Policy Overview



- Carbon Removals Certification Mechanism (CRCM)



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



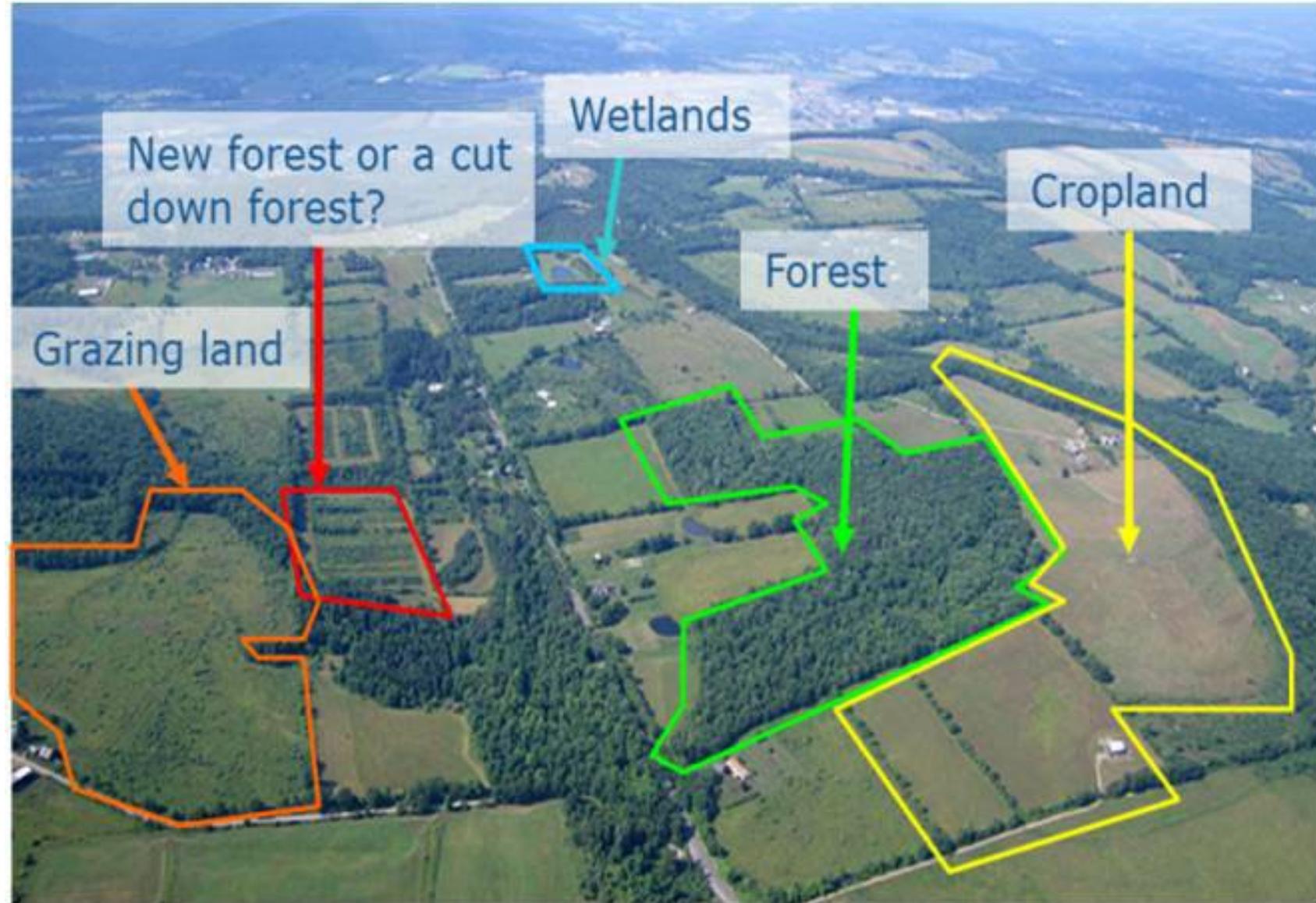
- Emissions Trading Scheme (ETS)



- Effort Sharing Regulation (ESR)

- Upcoming legislation, expected by the end of the year
- Will be very important to setting up a robust framework to support CDR
- What is the role for Government?
 - Verification
 - Permanence
 - Incentivization
 - Incorporate Sustainability (Trust)
 - Urgency
 - Flexibility

- Nature-based rather than Technical solutions
- Limited incorporation of carbon storage products
- Separate carbon farming targets



CA 7 - Sustainable Carbon Storage Products

Within **6 months after the entry into force** of a legislative act concerning a Union **regulatory framework for the certification of carbon removals...** the **Commission shall submit a report** to the European Parliament and the Council on the possible benefits and trade-offs in terms of climate mitigation, adaptation and biodiversity protection of the inclusion of sustainably sourced long-lived bio-based carbon storage products that have a net-positive carbon sequestration effect based on a life-cycle assessment, including the impact on land use and land use change associated with increased harvesting, and provided that the available data are science-based, transparent and verifiable. to the categories of harvested wood products listed in paragraph 1. The Commission's report may be accompanied, where appropriate, by a **legislative proposal to amend this Regulation accordingly,**

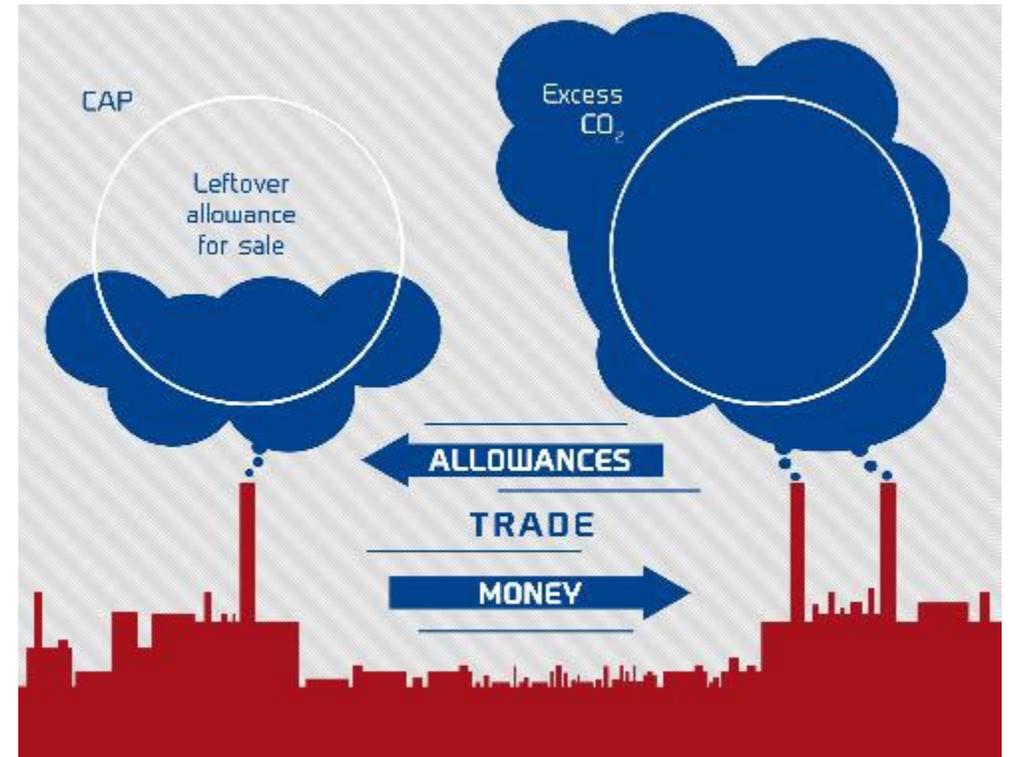
CA 4 - LULUCF 2030 Target

The 2030 Union target for net greenhouse gas removals **in the land, land use change and forestry sector is at least 310** million tonnes CO₂ equivalent as a sum of the Member States targets established in accordance with paragraph 3 of this Article, and shall be based on the average of its greenhouse gas inventory data for the years 2016, 2017 and 2018. **This target shall be further amplified by additional measures and initiatives at Union and Member States level to support carbon farming, delivering, at least 50 million additional tonnes CO₂ equivalent of net removals by 2030 at Union level.**

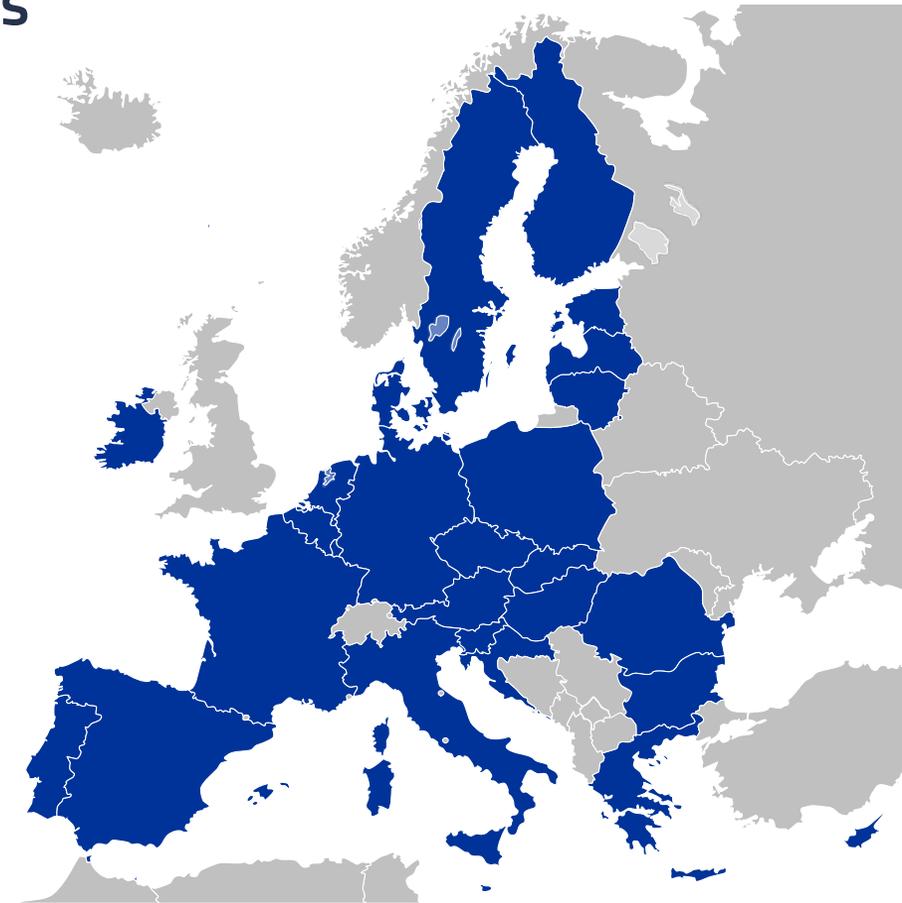
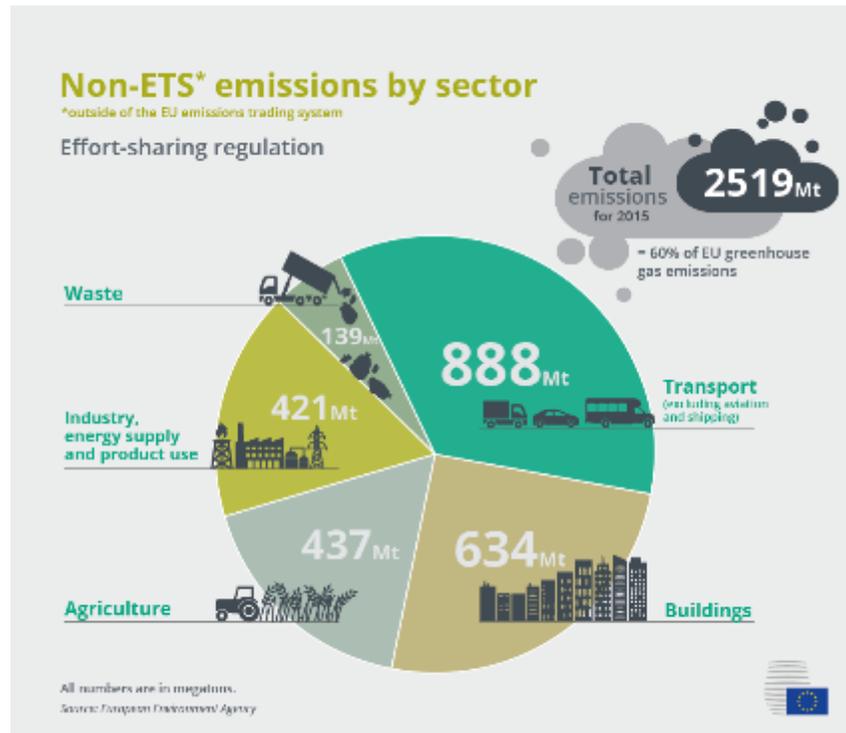
- Goal to have CDR included

CA 2 - CCU/CCS

By 1 January **2025**, the Commission shall present a report to the European Parliament and to the Council in which it shall examine how **negative emissions** resulting from greenhouse gases that are removed from the atmosphere and **safely and permanently stored** shall be **accounted for** and **how** these negative emissions can be **covered by emissions trading**, and in which it shall propose a clear scope and strict criteria and safeguards



- Shrinking scope
- Has gotten less attention than the other alternatives



On the right track, need to accelerate!

- Sweden has an ambitious BECCS goal to reach up to 2 Mt/CO₂ a year by 2030 and up to 10 Mt/CO₂ a year by 2045
- Biochar has seen huge growth recently, biochar capacity at the end of 2020 was about 20 000 tons, about double what it was in 2018
- Uneven biochar growth: About 70% of European biochar is concentrated in Germany, Sweden, Switzerland, and Austria



- Innovation Fund
- Tax incentives such as credits to reduce tax liability of companies that invest in capital intensive technologies such as DACS and BECCS.
- Obligation schemes that require businesses to deploy or invest in a defined volume of permanent carbon removal or face a penalty
- Governmental service contract for large-scale projects
- Targeted grants and loans for decentralised or smaller-scale removal projects
- Public procurement incentives

Thank You!