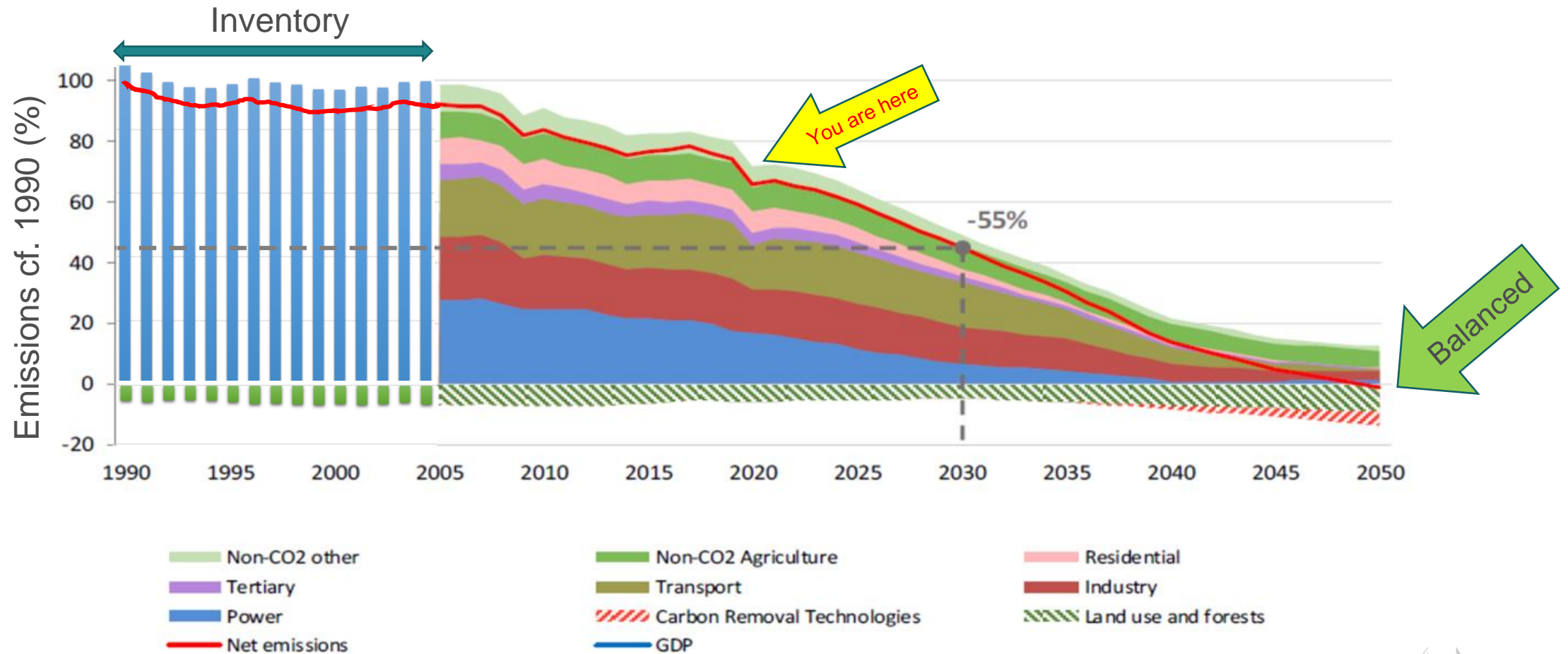




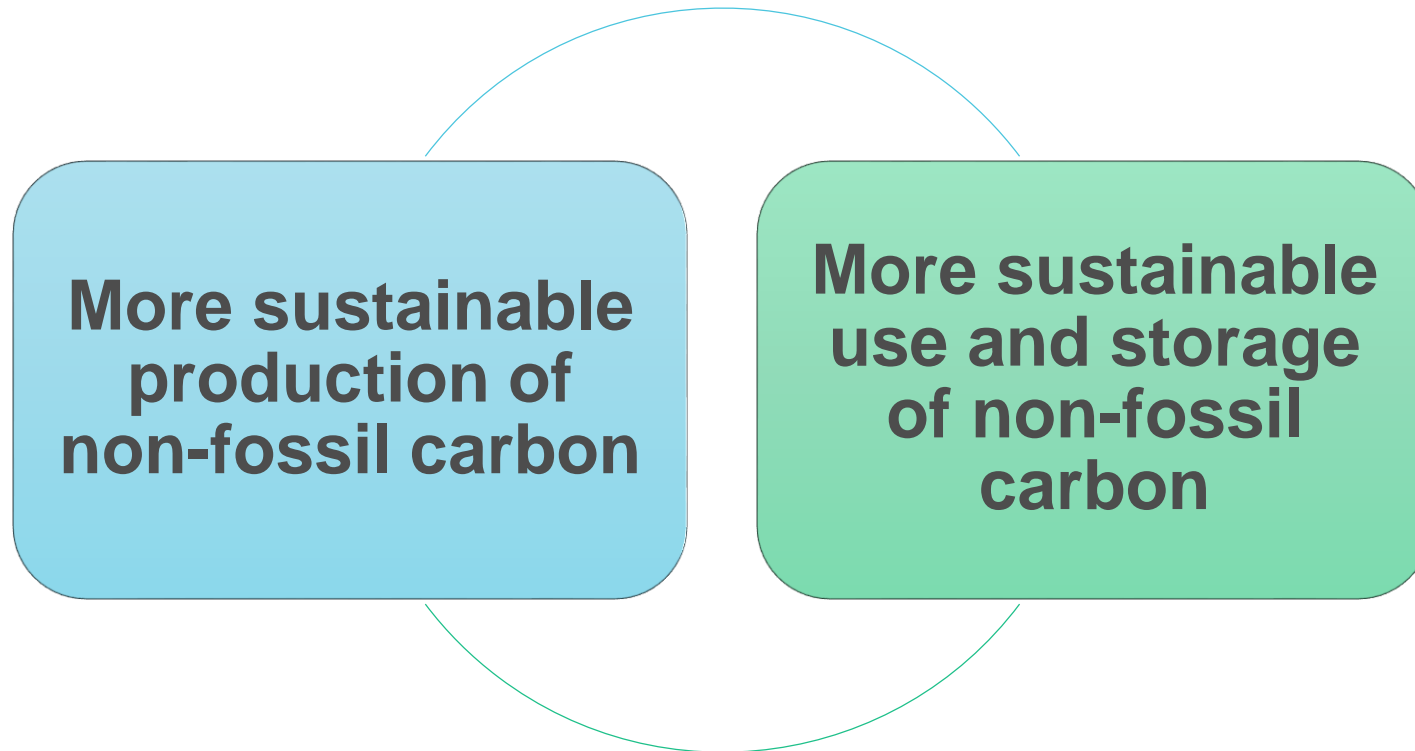
Sustainable Carbon Cycles

27 September 2022

Pathway to climate neutrality



Sustainable Carbon Cycles



Carbon farming



A **green business model** rewarding land managers for improved land management practices, resulting in carbon sequestration in ecosystems and reducing the release of carbon to the atmosphere.

Benefits of carbon farming:



Increased carbon removals



Additional income for land managers



More biodiversity and nature



Increased climate resilience of farm and forest land

Carbon farming - examples



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

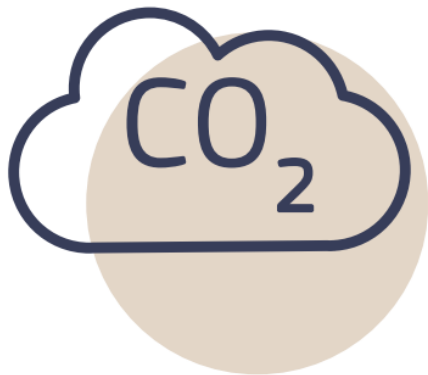


Restoration, rewetting and conservation of **peatlands and wetlands**



Blue carbon: coastal wetlands, regenerative aquaculture, marine permaculture

Industrial capture, use, transport, and storage of carbon

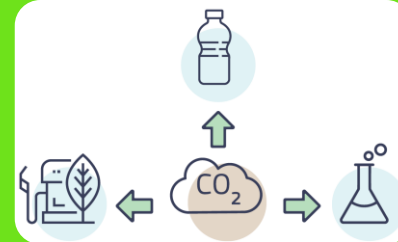


*In addition to decarbonising its energy system, the EU will also need to **rethink its sourcing of carbon** as feedstock for industrial processes.*

Creating an internal market for the sustainable capture, use, and storage of CO₂:



Replace energy-intensive materials (cement, steel...) with **bio-based materials** which store carbon



Transform CO₂ from a **waste product** to a resource, and use it to produce materials, chemicals and fuels



Remove carbon **from the atmosphere**

Sustainable bioeconomy - examples



Use of **wood-based construction products** and other carbon-storing building materials



Fibre crops (applications: clothes, cosmetics, particle boards, bio-composites, bio-plastics...)



Bioenergy with carbon capture and storage (BECCS) e.g. Stockholm Exergi's project financed by EU Innovation Fund

Innovation Fund projects from last call



AIR

The project aims to avoid **4,1 MtCO₂e** over 10 years of operation.

The objective is to create a methanol plant in Sweden, using a CCU process for converting CO₂, residue streams, renewable hydrogen and biogas to methanol.

Perstorp will be the first chemical producer to use this integrated production concept and the first chemical producer to replace all fossil methanol for its European production plants (200 000 tons annually) with sustainable methanol.

Partners

1. Perstorp Oxo AB
2. Fortum Sverige AB
3. Sydkraft AB



IONFibre

The project aims to avoid **2,3 MtCO₂e** over 10 years of operation.

The objective is to produce a new fibre to substitute existing textile fibres both in apparel and technical textile applications.

In comparison to the reference product, polyester fibre, the Kuura textile fibre saves 93% of GHG emissions.

The Kuura textile fibre production is integrated to a Metsä Group bioproduct mill, enabling the use of never-dried pulp made wood sourced from sustainably managed Finnish forests, and resulting in savings in electricity, heat and costs as well as improvements in the dissolution process.

Partners

1. Metsa Spring Oy

Funding opportunities for innovative climate technology projects



Links

- Call for Evidence on Carbon Removal Certification [Certification of carbon removals – EU rules \(europa.eu\)](#)
- Conference on Sustainable Carbon Cycles, 31 January 2022 [Sustainable Carbon Cycles Conference - About \(b2match.io\)](#)
- Our [webpage](#) and our [press release](#) on the Sustainable Carbon Cycles communication
- Our webpage on [Carbon Farming \(europa.eu\)](#)
- Horizon call for “**Network on carbon farming for agricultural and forest soils**” (Coordination and Support Action) with an EU contribution of EUR 3.00 million. For more details, please see [here](#) the full text of the call.
- Commission list of potential eco-schemes <https://europa.eu/!yb74nC>
- Study on Carbon Farming: <https://data.europa.eu/doi/10.2834/594818>
- Study on Wood in construction: <https://dx.doi.org/10.2834/421958>
- Legislative proposal on a new Regulation for Land use, forestry, and agriculture [Delivering the European Green Deal | Climate Action \(europa.eu\)](#)