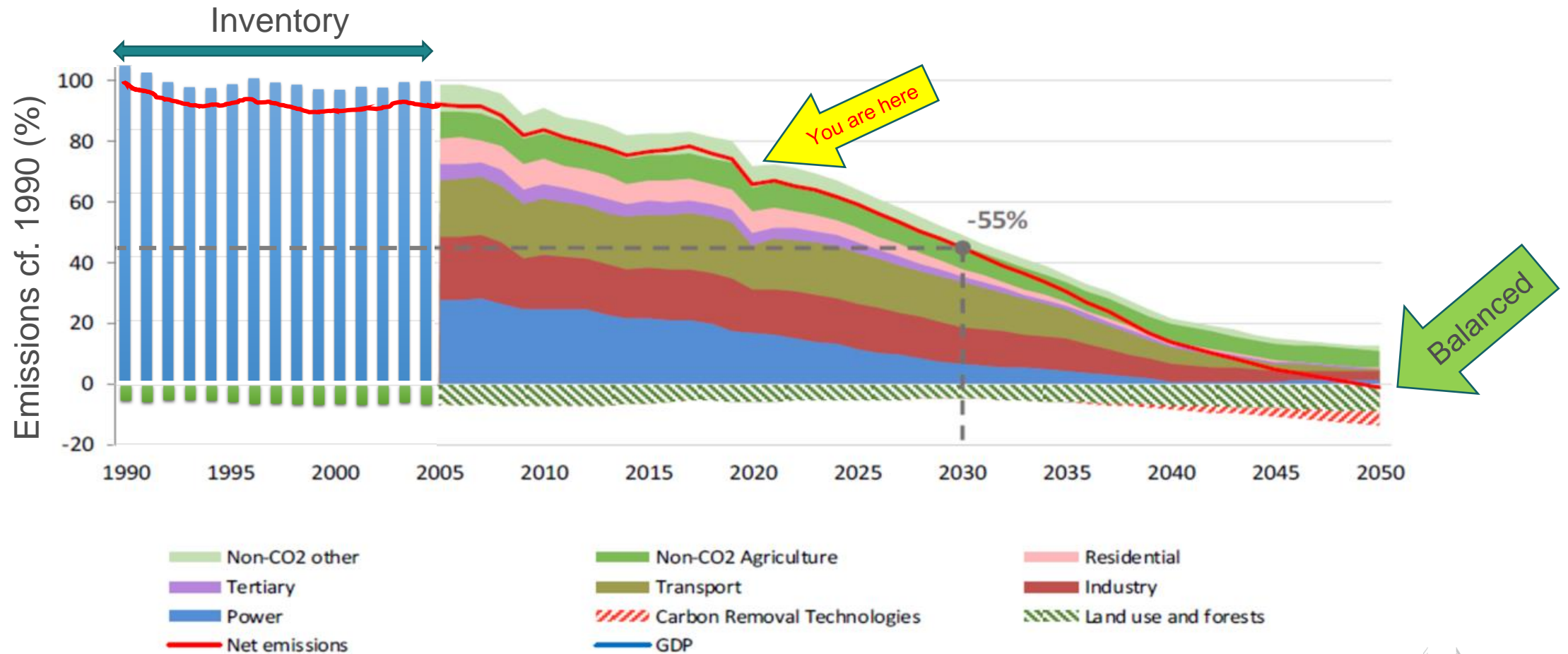




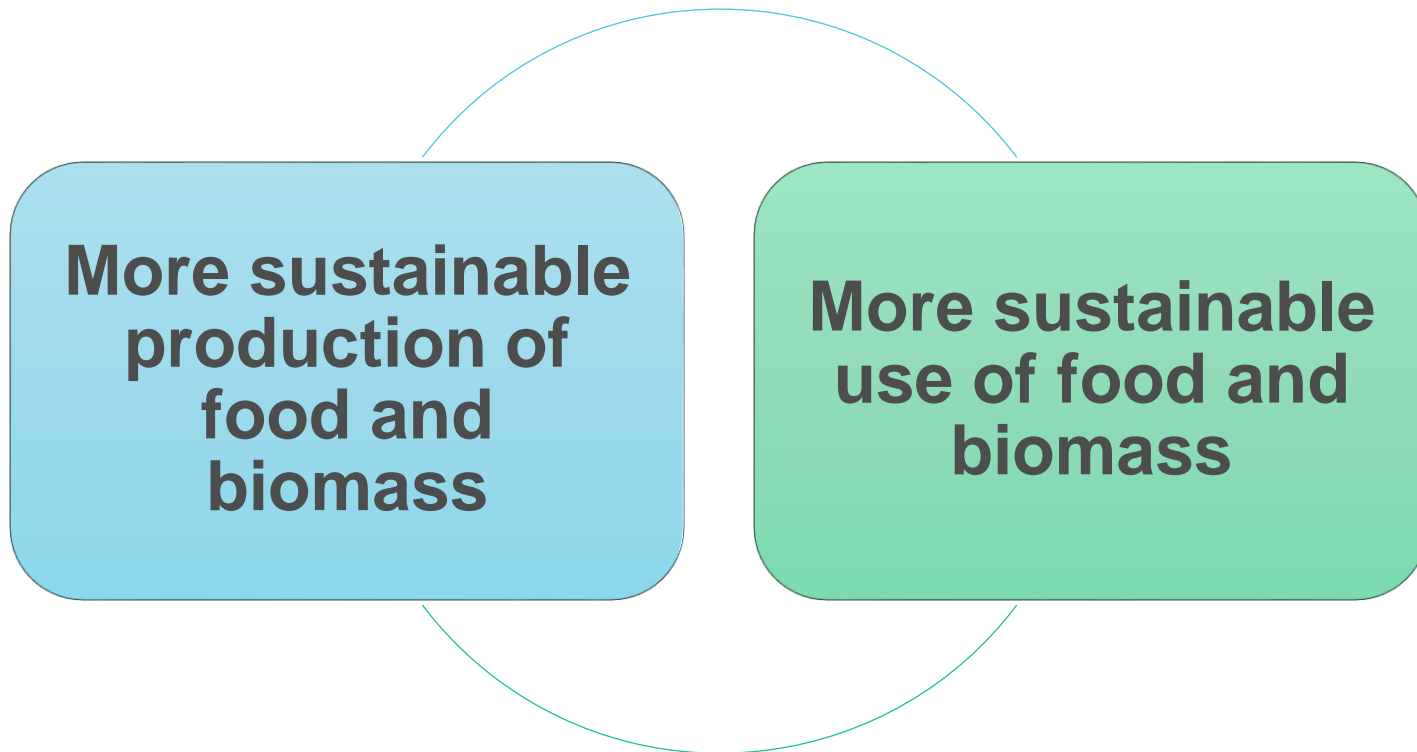
Sustainable Carbon Cycles

15 March 2022

Pathway to climate neutrality



Sustainable Carbon Cycles



- Bioenergy with carbon capture and storage (BECCS)
- Fibre crops for bio-plastics, packaging, clothes
- Wood-based construction products

Sustainable capture, use, transport, and storage of carbon

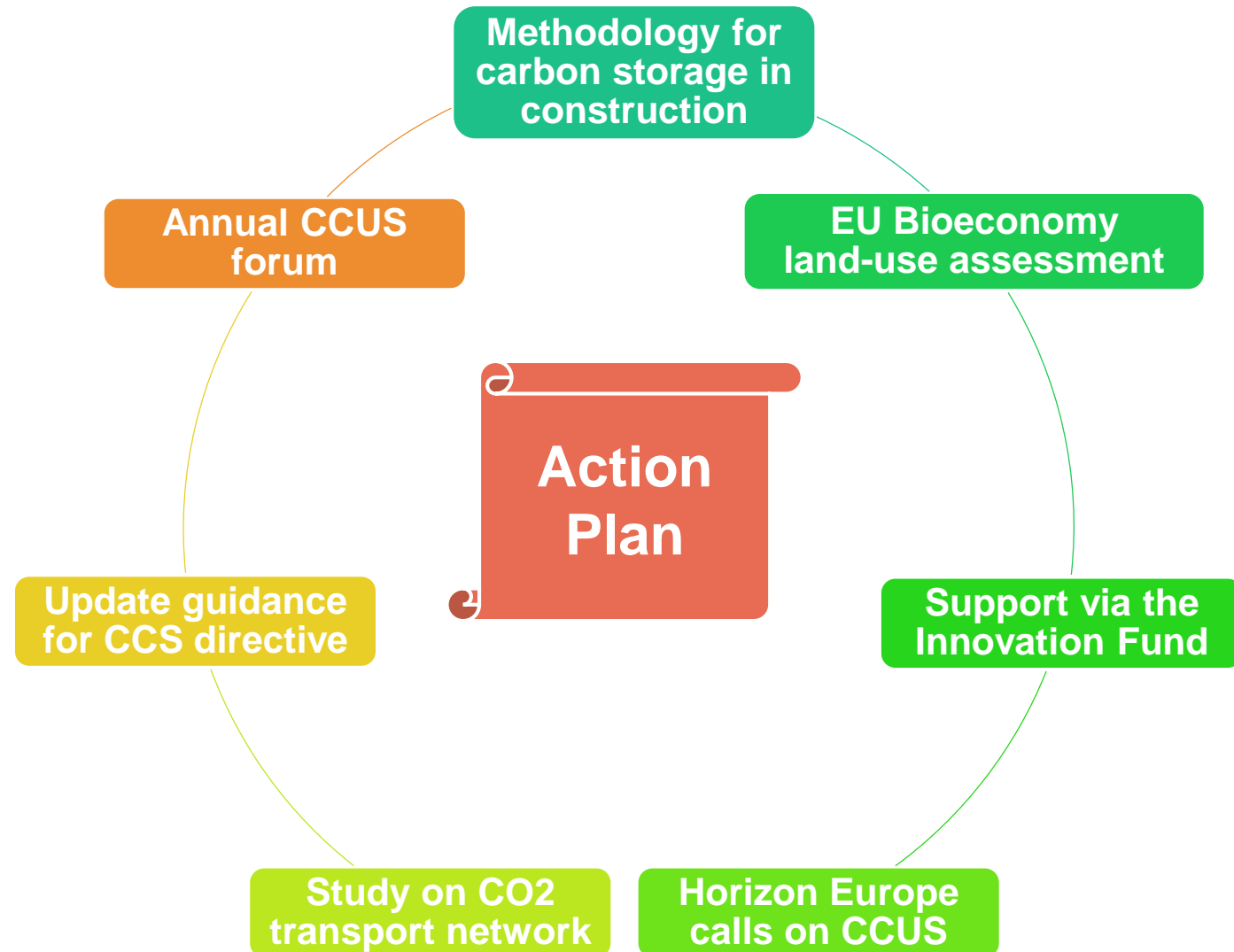
Challenges

By 2028:

- All CO₂ captured, transported, used and stored should be reported and accounted

By 2030:

- 20% of non-fossil carbon used in chemicals and plastics
- 5Mt of industrial carbon removals



Innovation Fund grants of € 1145 million for seven first-of-a-kind projects

Kairos-at-C - Port of Antwerp (BE)

- Carbon capture from hydrogen, ammonia and ethylene oxide production and storage in North Sea, innovative shipping

BECCS Stockholm (SE)

- Bio-energy carbon capture at a combined heat and power plant and storage in North Sea – negative emissions

K6 (FR)

- CCUS at cement plant with storage in North Sea and carbon use for concrete production

SHARC (FI)

- Green hydrogen from water electrolysis and blue hydrogen with CCS, storage in North Sea

Hybrit (SE)

- Hydrogen-based direct reduction for steelmaking, including electrolyser

ECOPLANTA (ES)

- Bio-based methanol from municipal waste

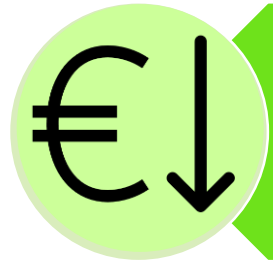
TANGO (IT)

- Bifacial heterojunction photovoltaic cells production at GW scale

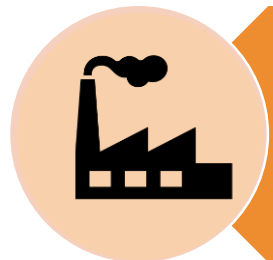
Open-access cross-border CO₂ infrastructure



Connect CO₂ sources with sinks, including storage sites and production sites using CO₂ as a feedstock



Drive down costs through competition in an open EU market



CCUS hubs to leverage economies of scale across the EU

Open-access cross-border CO2 infrastructure

Allowing the provisional application of article 6 amendment of the London Protocol (bilateral agreements between MS)

Ensuring provision of transport and storage services at fair conditions (prices, open-access, no obligation to bundle transport and storage)

Accelerating readiness of storage sites across the EU to increase the offer

Next step:

A regulatory framework for the certification of carbon removals

Conference on Sustainable Carbon Cycles – 31 January 2021

Call for Evidence* open until 2 May 2021

Legislative proposal (Q4 2022)

* Inception Impact Assessment open for feedback; Open Public Consultation.

Set robust certification requirements

- Measurement and monitoring
- Additionality
- Duration of liability
- Environmental safeguards and co-benefits

Establish an effective governance framework for effective, cost-efficient and transparent implementation

Rules applicable for carbon farming and industrial carbon removal projects

Links

- Call for Evidence on Carbon Removal Certification [Certification of carbon removals – EU rules \(europa.eu\)](#)
- Conference on Sustainable Carbon Cycles, 31 January 2021 [Sustainable Carbon Cycles Conference - About \(b2match.io\)](#)
- Our [webpage](#) and our [press release](#) on the Sustainable Carbon Cycles communication
- Our webpage on [Carbon Farming \(europa.eu\)](#)
- 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 \(europa.eu\)](#)