



# **The CRCF trilogues and the Industrial Carbon Management strategy: Where are we headed?**

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# The need for an Industrial Carbon Management Strategy (ICMS)

- ICM technologies are part of the solution towards achieving climate neutrality by 2050 → They need to be deployed already before 2040.
- The ICMS identifies five barriers:
  1. Difficulty in building a viable business case
  2. Lack of a comprehensive regulatory framework across the entire value chain
  3. CO2-specific cross-value chain risks for first businesses involved in building the value chain
  4. Insufficient coordination and planning
  5. Insufficient incentives for private and public investments

# Unpacking the ICMS

## “The 2040 target”:

- **90% net GHG emission reduction** compared to 1990 levels by 2040

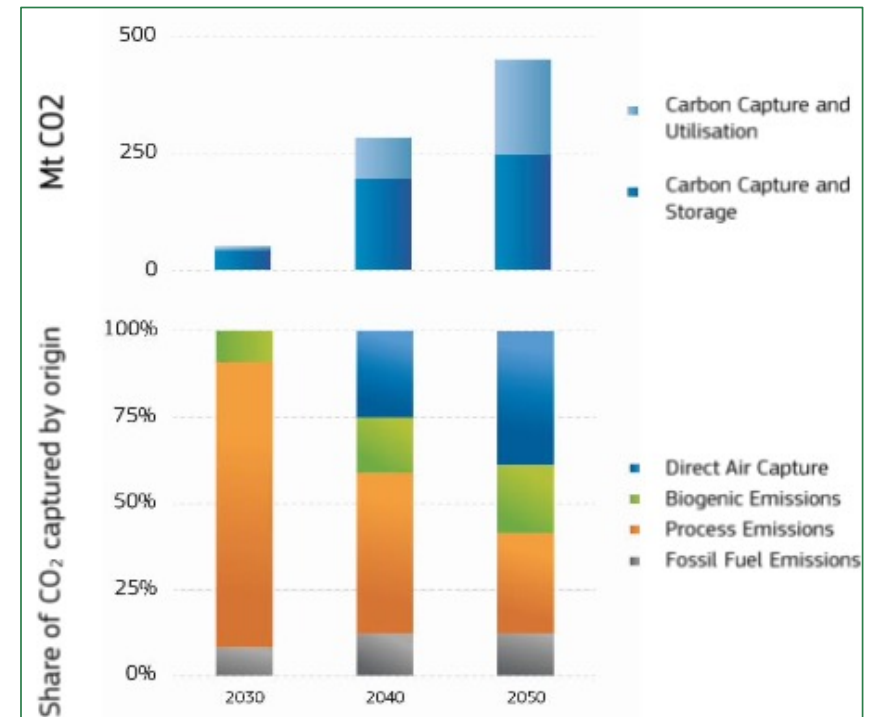
To deliver a reduction of net GHG emissions of 90%:

- The remaining EU GHG emissions in 2040 should be less than 850 MtCO<sub>2</sub>-eq
- Carbon removals (from the atmosphere through land-based and industrial carbon removals) should **reach up to 400 MtCO<sub>2</sub>**.

## The Industrial Carbon Management Strategy:

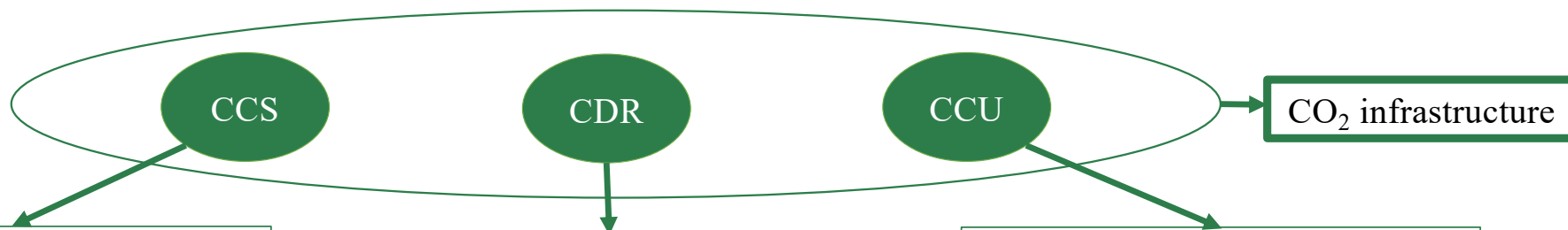
- **[By 2030:**
  - An annual injection capacity of at **least 50 million tonnes** of CO<sub>2</sub> shall be achieved– Net Zero Industry Act (COM(2023) 161 final)].
- **By 2040:**
  - Approximately **280 million tonnes** of CO<sub>2</sub> would have to be **captured**;
  - At least **250 million tonnes** of CO<sub>2</sub> **injection capacity** for storage per year in 2040 would be needed.
- **By 2050:**
  - Around **450 million tonnes of CO<sub>2</sub>** would have to be captured by 2050.

Figure 1: Volume of Co2 captured for storage and utilisation in the EU and shared of the Co2 captured by origin.



Source: European Commission, COM(2024) 62 final.

# Three pathways for the ICMS



EC foresees to:

- **By 2025**
  - Develop a step-by-step **guidance for permitting processes** for storage projects
- **By 2026**
  - develop a **platform for demand assessment and demand aggregation** for CO<sub>2</sub> transport and storage
  - Create and make available an **investment atlas** of potential CO<sub>2</sub> storage sites
  - Use a **knowledge-sharing Platform** for projects.

Other recommendations directed to Member States.

EC foresees to:

- **Assess overall objectives for CDR** needs in line with the EU's 2040 climate ambition
- **Develop policy options** and support mechanisms for industrial CDRs
- **Boost EU research, innovation, and demonstration** of novel industrial technologies.

EC foresees to:

- Assess **demand pull options** to increase the uptake of sustainable carbon as a resource in industrial sectors.
- Use the **knowledge-sharing Platform** for industrial CCUS projects to co-develop with industries' sector-specific roadmaps
- Draw up a **coherent framework** to account for all industrial carbon management activities.

# The CO<sub>2</sub> transport infrastructure → Key enabler

- Estimated scenarios by the EC:
  - By 2030: 7,300 km EUR 12.2 billion
  - By 2040: 19,000 km EUR 16 billion

→ Goal: to create a single market for CO<sub>2</sub> in Europe.

EC foresees to:

- **From 2024**
  - Initiate preparatory work on a proposal for a CO<sub>2</sub> transport regulatory package
  - Work towards proposing an EU-wide CO<sub>2</sub> transport infrastructure planning in cooperation with the **CCUS Forum**.
  - Consider the nomination of European coordinators to address issues that may emerge.
- Develop emissions accounting rules in the context of the EU ETS
- Work with the European standardisation bodies to establish minimum standards for CO<sub>2</sub> streams
- Develop any necessary guidelines on safe transportation of CO<sub>2</sub> by sea.

# Other enablers for the ICMS

## Investing and fundings

Right now:

Innovation Fund	Connecting Europe Facility Energy
InvestEU Fund	Recovery and Resilience Facility
Sustainable finance Taxonomy	European Investment Bank

EC foresees to:

- **Facilitate investment** needs in industrial carbon management.
- **By 2024**
  - Design of a possible **project of common European** interest via the JEF-IPCEI with the **CCUS Forum**.
  - Engage in **financing projects** with EIB.
- **By 2025**
  - Assess whether **CO<sub>2</sub> capture installations are mature enough**.

## Public awareness

EC foresees to:

- Work to **specify operating conditions** of projects that can reward local communities.
- Work to **increase knowledge, awareness, and public debate** on industrial carbon management.

## Research and innovation

2007-2023: **EUR 540 million invested** in CCUS solutions

EC foresees to:

- **Support new collaboration** and the **knowledge-sharing platform** for industrial CCUS projects.
- Continue to **invest R&I** for ICM technologies.

# Cross-border and international cooperation

Third-country  
storage



If being equivalent  
conditions

Paris  
Agreement



Attention to be given to international value  
chains to avoid double counting

EC foresees to:

- Work towards accelerated international cooperation to promote harmonized reporting and accounting of ICM activities.
- Work to ensure that internationally carbon pricing frameworks focus on the necessary emissions cuts.

## Does the ICMS fulfill its mission?

- ICM technologies are part of the solution towards achieving climate neutrality by 2050 → They need to be deployed already before 2040.

- Is 90% GHG emission reduction feasible?
- What will be the next targets? Are they achievable?

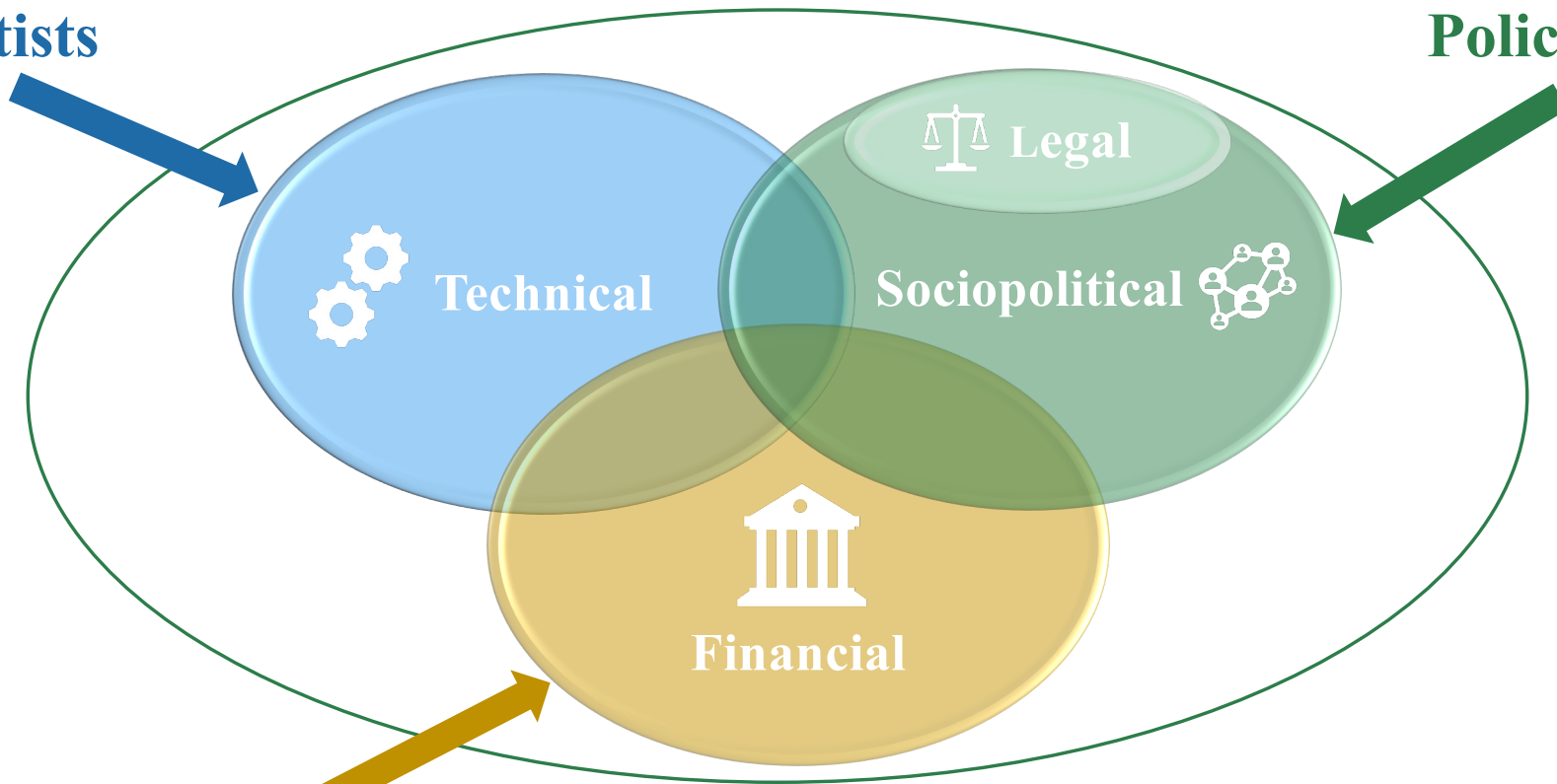
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- Are the proposed actions sufficient to create a business case?
- Does the ICMS provide for a comprehensive regulatory framework?
- How does it address cross-value chain risks?
- Does it provide enough coordination, planning, and incentives?



# The Industrial Carbon Management Strategy

**Scientists**



**Policymakers**

**Investors**