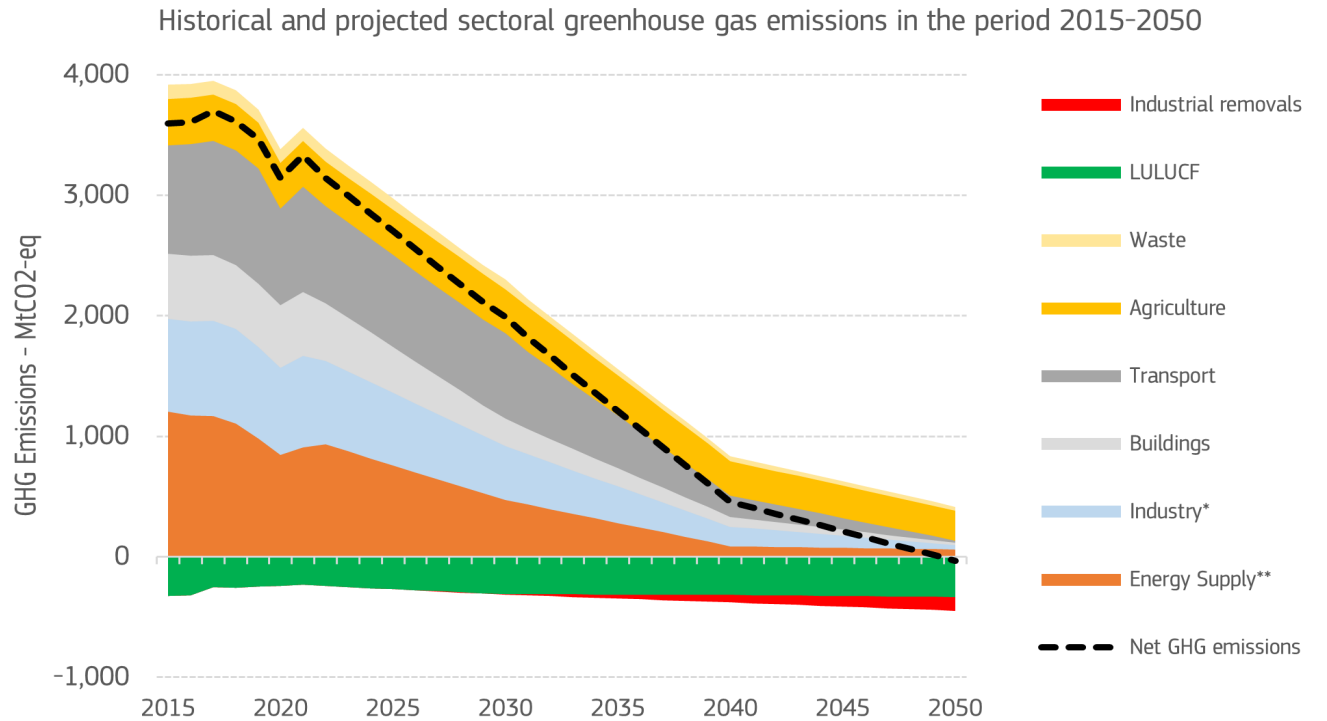




Future steps for CCU and CDR in Europe

16 April 2024

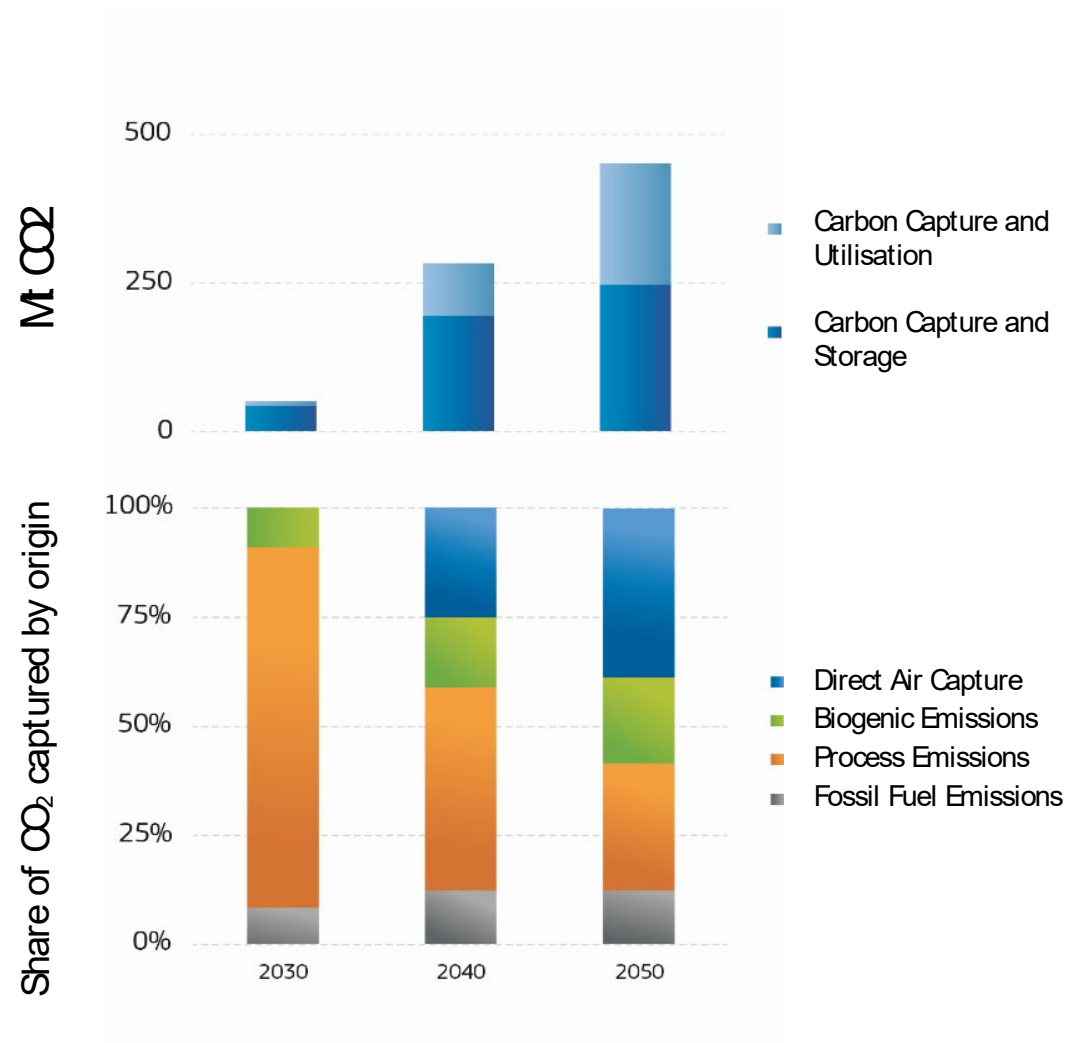
To deliver **90%** net emission reduction the level of remaining **emissions** should be **less than 850 MtCO₂eq** and carbon **removals** should reach **up to 400 MtCO₂**.



*Excluding non-BECCS industrial removals

**Including bioenergy with carbon capture and storage (BECCS)

INDUSTRIAL CARBON MANAGEMENT IS KEY TO ACHIEVING CLIMATE TARGETS

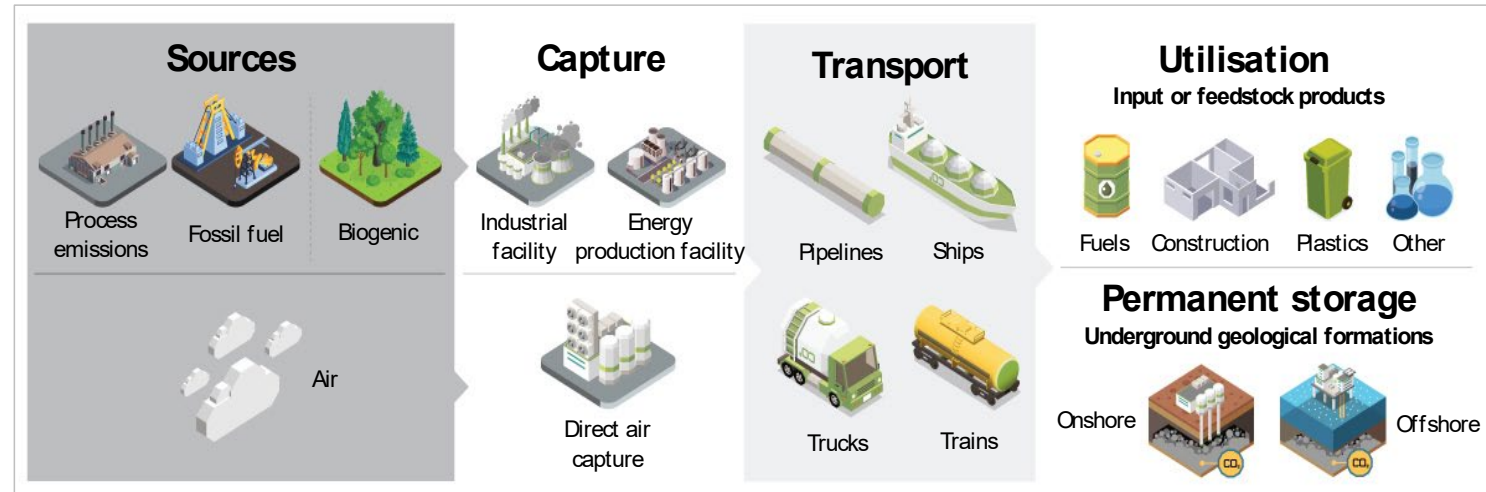


- Mitigating carbon emissions in industrial processes/fossil fuels
- Shift towards biogenic and atmospheric CO₂
- Need to capture ~50 MT by 2030, ~280 MT by 2040, ~450 MT by 2050
- BECCS/DACCS 75 MT by 2040, total carbon removals up to 400 MT by 2040

WHAT IS INDUSTRIAL CARBON MANAGEMENT?

- Capturing CO₂ emissions for storage (CCS)
- Removing CO₂ from the atmosphere
- Capturing CO₂ for utilisation (CCU)

Enabled by CO₂ transport infrastructure



WHAT ARE WE ALREADY DOING ON ICM?

- EU ETS + Innovation Fund
 - RFNBOs and synthetic fuels
 - CCS Directive
 - NZIA: CCS strategic net-zero technology. 50 MT target
 - PCI/PMI: 14 CO₂ projects; 5 awarded CEF
 - Certification of carbon removals
- 20 MS include ICM in NECPs
 - 7 MS include ICM in RRP
 - DK, NL + NO: ICM subsidies and pioneering CO₂ storage
 - FR, DE & AT developing ICM strategies

CARBON CAPTURE AND USE

Aim: to recognise the climate benefits of CCU

Challenges:
heterogeneity of pathways,
accounting framework not fit for purpose, lacking price incentives



- ▶ assess demand pull options to increase the uptake of sustainable carbon as a resource
- ▶ develop with industry sector-specific CCU roadmaps
- ▶ draw up a framework to account for all ICM activities that accurately reflect the climate benefits across the value chains,

CARBON REMOVALS

Aim: to support the development and deployment of industrial removals

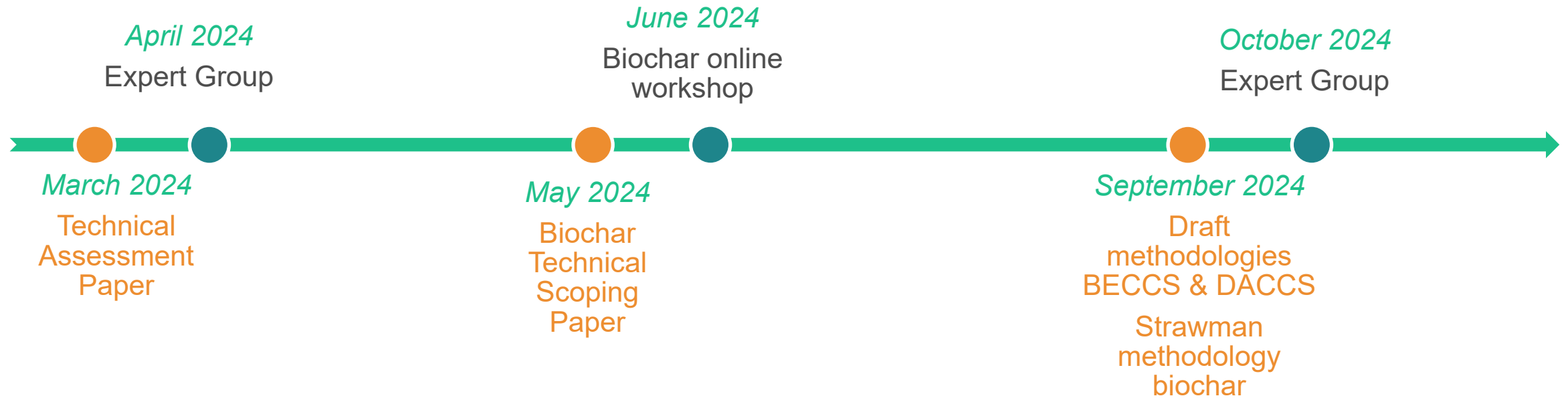
Challenges: not recognised by the legislative framework, cost, early-stage tech



- ▶ assess objectives for carbon removals in line with the 2040 ambition
- ▶ develop policy options for industrial carbon removals
- ▶ boost R&I under Horizon Europe and the Innovation Fund

CRCF REGULATION

METHODOLOGIES FOR PERMANENT CARBON REMOVALS





Thank you