

Mandate Working Group on CCU – 2024

The Commission is establishing for the first time this year a Working Group (WG) on carbon capture and utilisation (CCU), under the Industrial Carbon Management (ICM) Forum. Capturing CO₂¹ and recycling it to produce a wide range of products, such as chemicals, fuels, polymers, or materials, is a key aspect of the industrial carbon management value chain. It allows replacing fossil-based feedstock whilst contributing to emission reductions, strategic autonomy, energy security and the industrial competitiveness of the EU. The production of chemicals and materials still relies heavily on fossil-based feedstock². Therefore, captured CO₂ and its utilisation, from biogenic, processes emissions and residual fossil sources, as well as CO₂ removed from the atmosphere, is fundamental for the de-fossilization and increased resilience of hard to abate sectors in the EU. CCU contributes to the circular economy model, by promoting industrial symbiosis and better integration of processes within industrial clusters³.

Members of the WG will be invited to reflect on the enabling conditions to support the industrial deployment of CCU and to create a market for CCU based products, while considering climate benefits and discussing in particular the policy framework and the financing needed.

The aim is to deliver by the end of the year a paper mapping enabling conditions and barriers for the deployment of CCU in the EU. The paper shall present an overview of CCU technologies, determine the scale of industrial opportunities to be enabled and include policy recommendations on how to incentivise the use of CCU applications in the EU. The analysis should aim to be inclusive, considering EU regions' different set of assets and limitations for CCU initiatives. The fourth edition of the CCUS Forum in Pau (France) on 10-11 October, will be an opportunity to provide a progress report on the work done by the WG.

Main elements to consider, but not be limited to:

- What are the existing structural challenges and regulatory barriers to the deployment of CCU technologies?
- What are concrete economic and regulatory incentives to support the industrial scale up and investments in CCU technologies?
- What are the concrete measures needed in the policy framework to create a market for CO₂-based products⁴?
 - What incentives could be established for producers, as well as for consumers, of CO₂-based products?
 - Evaluate the potential of demand-pull options to increase the uptake of renewable and circular carbon as a resource in industrial sectors.
- What should be the leading elements of the methodology to account emissions, including avoided emissions due to virgin fossil fuels displacement and in full consideration of the type of emission source (biogenic and industrial fossil), of CO₂-based products?
- What are the specificities concerning utilisation of biogenic, process and fossil CO₂ for instance for industrial symbiosis opportunities?

¹ And also industrial carbon monoxide CO, e.g. from industrial waste gases.

² The Transition Pathway for the Chemical Industry ([link](#)).

³ Industrial Carbon Management Communication ([link](#)).

⁴ While the activities of the working group should focus on CO₂-based products, synergies with the broader picture of sustainable carbon that also includes biobased and recycled feedstocks are to be taken into account.