

***ERCST's rationale accompanying the
submission to the Public Consultation for
Industrial Carbon Management –
carbon capture, utilisation and storage
deployment***

Chapeau

The European Roundtable on Climate Change and Sustainable Transition (ERCST) welcomes the opportunity to participate in the European Commission's public consultation for "industrial carbon management – carbon capture, utilisation and storage deployment".

ERCST is a Brussels-based independent think-tank that provides rigorous intellectual analysis of EU and international climate change developments and policies, by using the experience and research of its staff, as well as input from stakeholders who participate in its activities. ERCST contributes to European and international debates on climate change policy through its original ideas and research on many topics, including international carbon markets, carbon capture, utilization and storage (CCUS) and carbon dioxide removals (CDR), EU ETS, CBAM, hydrogen, electricity, and mobility.

ERCST's response to the Public Consultation builds on the work that it has done previously, and a long-term interest and examination of issues related to addressing EU climate policy related to CCUS and CDR. ERCST is also co-chairing the Working Group on Public Perception of CCUS, established by the European Commission in preparation for its strategy on CCUS and carbon removals while carrying out additional studies on various related topics.

ERCST's rationale

Since the adoption of the Paris Agreement, the EU has committed to holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels. According to the Paris Agreement, such long-term temperature goals should be achieved by reaching global peaking of greenhouse gas emissions as soon as possible and undertaking rapid reductions thereafter to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century¹. As a result, the EU adopted the European Climate Law in 2021, which sets a legally binding target of net zero greenhouse gas emissions by 2050 and the necessary steps to achieve such target to which EU Institutions and Member States are bound².

Under this context, global modelled pathways published by prominent institutions show how CCUS and CDRs are fundamental to achieving such ambitious climate targets since these technologies can help in counterbalancing residual GHG emissions³. Therefore, given the EU's climate target, these technologies must be deployed as fast as possible, as they must be already in operation by 2050, at the beginning to reduce the CO₂ that has been already emitted, and afterwards to generate negative emissions.

There are a multitude of challenges associated with the implementation of CCUS and CDR technologies, such as the lack of a proper business model, cross-border infrastructure and up-to-date regulatory framework, along with long project timeframe and approval process and high project implementation costs. In addition to that, public perception of these technologies varies a lot between technology and across Member States, leading to fragmented acceptance of it, which further undermines their development and deployment.

Furthermore, there are also questions regarding the environmental credibility and integrity of these instruments⁴. One first concern is on the issue of additionality: in the case of these technologies, the impact of CO₂ in the atmosphere is not dependent on alternatives and does not provide for

¹ Paris Agreement, Article 4. Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf

² European Commission Climate Action (n.d.). European Climate Law. Available at https://climate.ec.europa.eu/eu-action/european-climate-law_en

³ ERCST (2023). Implementing Carbon Capture and Storage Technologies: A Call to Action [Draft Paper]. Available at <https://ercst.org/implementing-carbon-capture-and-storage-technologies-a-call-to-action-draft-paper-2/>

⁴ ERCST (2023). The operationalization of engineering-based removals under the Article 6.4 mechanism. Available at <https://ercst.org/the-operationalization-of-engineering-based-removals-under-the-article-6-4-mechanism/>

counterfactual, as the CO₂ has been already emitted.

Second, CCUS and CDR technologies should guarantee permanence when storing CO₂, but the conceptualization of this timeframe as a workable concept remains difficult. One of the options that can be considered is to have storage credits that guarantee that the CO₂ is safely stored for the full crediting period and that associate the credit with the probability of future reversals within a longer timeframe than the crediting period (i.e., 1000 years). To manage such risk of reversal, a carbon central bank could be created, or the role could be assigned to an already-existing robust institution, which will be responsible for issuing insurance over these risks and implementing countermeasures.

Adopting a market-based approach for CCUS and CDR can help overcome related uncertainties and economic issues. This would be the case, for instance, if implementing a market mechanism based on carbon storage units (CSU), in which storage operators are the main market players, while CO₂ capture and transport operators will provide a service to the storage⁵.

Therefore, the Commission's hesitation on not making CCUS and CDR a priority comes into view as unjustifiable, considering that the issues pertaining to CCUS and CDR are solvable through strong political support and by adopting a market approach. There is also a strong need for CCUS and CDR to be integrated fully into the EU's climate portfolio at the same level as the other climate change policies that have been already implemented.

By not utilizing the whole toolbox of measures, the EU will risk jeopardizing its own prosperity and competitiveness at the international level, as well as its chances of achieving climate neutrality by the target year and negative emissions thereafter, falling behind other jurisdictions.

ERCST's feedback to the public consultation

ERCST would like to raise some concerns around public consultation questions and how they were formulated, including as a result of discussion with other stakeholders.

- Definitions of concepts, technologies and use of the technologies are missing. Because of this, it is difficult to provide the right answer – or to rank answers – to some of the questions.
- Given answers are usually embedded in a specific model, in a specific context, and/or by applying conditionalities that are not expressed in the questionnaire. Therefore, answers to some of the questions need extensive explanation, as the listed answers are all plausible options, but they may not be all plausible if looking at the model adopted by stakeholders in answering the questions.
- Many questions are subjected to interpretation as their goal is unclear.
- Questions do not differentiate between technologies – CCS, CCU and Industrial Carbon Removals and within Removals – and do not always respect the technology neutrality principle by looking at one technology only or by not providing other options to answer or the possibility to comment.
- Whenever stakeholders are asked whether they agree with the setting of new targets, as in Question 14 regarding the storage availability target, the context provided is not sufficient to allow them to provide a thoughtful and meaningful response. Indeed, new targets cannot be considered separately and in isolation from already-existing targets and other conditions, because otherwise, the target may be unachievable and unattainable.

⁵ Marcu, A., Zaman, P., and Zakkour, P. (2022). Scaling up and trading CO₂ storage units (CSUs) under Article 6 of the Paris Agreement – Potential challenges, enablers, governance and mechanisms. Available at <https://ercst.org/scaling-up-and-trading-co2-storage-units-csus-under-article-6-of-the-paris-agreement-potential-challenges-enablers-governance-and-mechanisms/>