

Advancing EU Carbon Capture and Storage



5 recommendations from the value chain

Co-signed by:



Royal Belgian
Shipowners'
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ROYAL
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The CCS community welcomes the European Commission's continued leadership in positioning Carbon Capture and Storage (CCS) as a key enabler of Europe's path to net zero. CCS will be indispensable for meeting the EU's 2040 and 2050 climate targets, supporting industrial decarbonisation, and safeguarding Europe's competitiveness in energy-intensive sectors.

To realise these ambitions, it is essential that the goals set at EU level are both ambitious and achievable, and that they reflect the realities and opportunities across the entire CCS value chain. A holistic approach is needed: one that ensures coherence between capture requirements, transport capacity, port and infrastructure, storage availability, permitting frameworks, and funding mechanisms. Storage operators in particular must be able to scale in parallel with capture and transport, supported by regulatory clarity and incentives that match actual market needs.

The recent Net-Zero Industry Act (NZIA), published on 28 June 2024, underscores the EU's commitment by establishing an objective of at least 50 million tonnes of annual CO₂ injection capacity by 2030. Such objectives require the European Commission to prioritise a fully integrated CCS approach that advances the entire value chain in lockstep. Since capture, transport, and storage must become operational simultaneously, funding and regulation should be designed to reward collective readiness rather than stand-alone projects. By supporting coordinated investments across all segments - the EU can minimise timing gaps, strengthen system reliability, and ensure CCS capacity comes online as a coherent, connected whole.

Against this backdrop, the following five recommendations outline how the EU can adopt a more flexible, market-based framework that aligns incentives, investments, accelerates deployment, and ensures that CCS can fulfil its essential role in Europe's decarbonisation pathway.

A central obstacle to realising a fully functional and interconnected European CCS market lies in the regulatory barriers surrounding the cross-border maritime transportation of CO2 for offshore geological storage. While several Member States – including Denmark and the Netherlands together with Norway – are advancing rapidly in the deployment of offshore CO2 storage infrastructure, the current international legal framework under the London Protocol restricts the seamless transport of captured CO2 across national borders for offshore storage. This situation undermines the EU's goal of building a single market for CO2 capture, transport, and storage. Without predictable cross-border transport routes, especially maritime including onboard carbon capture, the EU risks slowing the pace of deployment, discouraging investment, and missing opportunities to leverage shared North Sea storage resources.

Equally, Europe has a shared interest in exploring cooperation with third countries in its Southern neighbourhood to support the development of a regional approach to CCS in the Mediterranean, addressing the scarcity of CO2 storage sites in the region. The European Commission should consider ways to support and facilitate such cooperation, ensuring that Mediterranean countries have access to efficient CO2 management solutions.

In addition to removing the regulatory barriers for transport of CO2, a strengthening of short-sea shipping will make it more attractive to transport CO2 by ship, thereby accelerating the storage potential already tomorrow.

Recommendation

Develop an EU framework for cross-border CO2 transport

Establish a harmonized regulatory mechanism under EU law that recognizes and facilitates the movement of CO2 across borders from ports by ship, pipeline, or other means for the purpose of permanent geological storage, reducing administrative duplication and legal uncertainty for operators. Such a mechanism should also seek to include the EU's strategic partners such as the UK and Norway.



The establishment of large-scale CO2 storage capacity is the cornerstone of Europe's CCS strategy. Yet, without faster and more predictable approval processes, the risk is clear: capture and storage projects will not take final investment decisions, and Europe will fall short of its climate objectives. If Europe is to enable the necessary number of capture and storage projects to commence before 2030, it is imperative that the permitting and environmental approval processes for storage sites and infrastructure related to CO2 transport are significantly accelerated. This will be essential for transforming Europe's early CCS leadership into a fully operational, competitive, and integrated carbon management market.

This is not only a question of accelerating permitting procedures in the Member States; the European Commission must also reduce its own case-processing times. For example, the European Commission currently has a four-month consultation period, which it consistently uses in full before granting a permit. The European Commission's consultation procedure is only one of many steps required to scale up CCS projects, meaning that every actor, from local authorities to the supranational level, must accelerate their processes for industry to realise its potential and for the EU to meet its binding climate targets. While the NZIA introduces time limits for net-zero projects, it does not address the lengthy environmental assessment hearings or the European or the European Commission's extended case-management timelines.

Recommendation

Accelerate timeframes for permitting and environmental assessments

The European Commission should set strict and legally binding time limits for Member States to significantly accelerate the completion of permitting and environmental assessments for CCS projects by people with the right expertise. Accelerating timeframes should seek to enable both regulatory integrity and predictability for investors.

Steps should also be taken to reassess the necessity and length of the European Commission's current four-month consultation right on CO2 storage permits, with a view to reducing administrative delay while maintaining regulatory integrity and transparency.



3

The European Commission should complement the creation of a CCS-focused financing arm under the Innovation Fund with a robust Carbon Contracts for Difference (CCfD) mechanism. CCfDs would provide long-term revenue certainty for emitters and infrastructure developers, closing the cost gap between low-carbon solutions and conventional alternatives.

To ensure sufficient scale and predictability, the European Commission should anchor this mechanism in a dedicated funding vehicle capitalised through the Innovation Fund and backed by additional financing from the European Investment Bank (EIB) and, where appropriate, supported by European Central Bank (ECB) instruments that enable low-cost lending and guarantee structures.

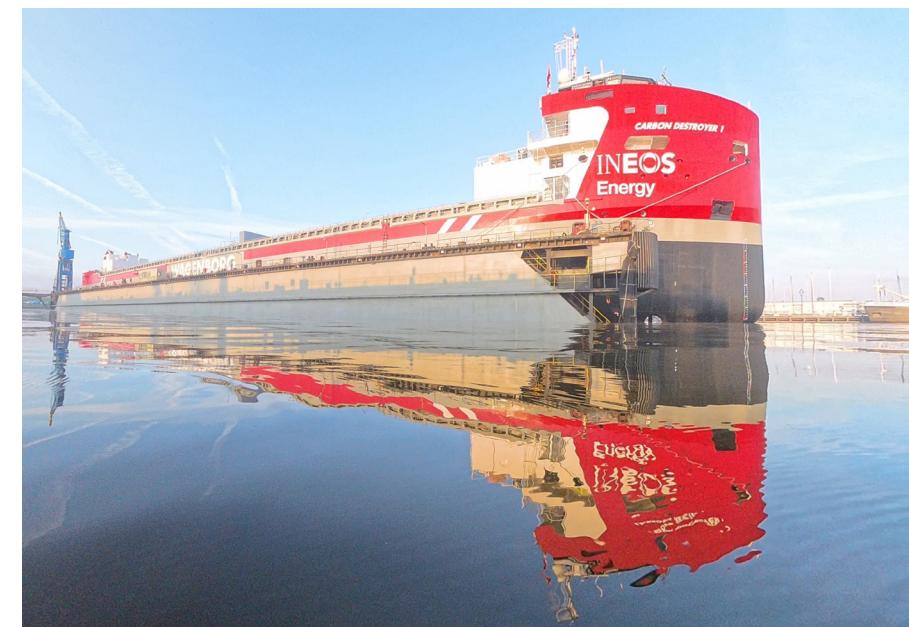
By coupling CCfDs with access to patient, low-risk capital from EU financial institutions, the EU can de-risk early projects, accelerate private investment, and drive CCS deployment at the pace required to meet its climate objectives.

Recommendation

Create a CCS-focused financing arm under the Innovation Fund

The European Commission should set up a CCS-focused financing arm within the Innovation Fund to lower capital risk and spur private investment. Empowered to provide a mix of financial instruments across all project stages, it would help bring viable solutions to market faster and strengthen links between sea-based and onshore transport networks.

Prioritising initiatives with strong climate impact and solid economics would ensure public funds deliver maximum value and speed up Europe's build-out of essential CCS infrastructure.



4

A coordinated approach is essential for scaling CCS. Therefore, a single point of contact is needed, and responsibility for CCS within the EU should be delegated to one entity; A dedicated taskforce should streamline responsibilities across DGs and operators. This would ensure a more efficient permitting process, reduce administrative bottlenecks, and facilitate the development of a single market for CO₂ transport. By clarifying roles and centralizing oversight, the EU can accelerate project deployment, enhance investor confidence, and support the rapid expansion of CCS infrastructure across Member States.

A single point of contact at the EU level will ensure effective coordination, avoid fragmentation, and facilitate cross border cooperation. By centralising communication and oversight, we can better align state aid mechanisms, streamline project development, and accelerate the deployment of CCS infrastructure across Member States.

Building on this, we therefore support *the open letter from 30 members of the industrial carbon management community and several umbrella organisations* for the creation of an Important Project of Common European Interest (IPCEI) for CCS, since the IPCEI framework provides a robust way to mobilise public and private funding, overcome market failures, and deliver a coherent, Europe wide strategy for CO₂ capture, transport, removal, and storage in line with our climate-neutrality objectives.

Recommendation

Create a single point of contact in the EU

The European Commission should assign full CCS oversight to one empowered body and set up a focused cross-departmental team to align tasks and cut procedural delays. Concentrating authority will speed up project approvals, remove duplication, and enable a coherent EU-wide CO₂ transport system. This clearer structure will help projects advance faster and give investors greater certainty and should further be supported by the creation of an Important Project of Common European Interest (IPCEI) for CCS.



5

As Europe moves forward with large-scale deployment of Carbon Capture, Utilisation and Storage (CCUS), the stability and reliability of the full CO₂ value chain become essential. Because CCUS systems are highly interconnected, a malfunction or default in one part of the chain, whether in capture, transport, or storage, can have immediate effects on all other segments. Such disruptions are often unforeseeable and may not be attributable to a specific party.

If a part of the CCUS chain becomes non-operational, emitters and CO₂ transport operators can face significant financial consequences. Emitters may be forced to vent CO₂, triggering EU ETS compliance costs despite having invested in decarbonisation solutions. At the same time, they remain bound by “ship-or-pay” agreements requiring payment for minimum transport capacity even when the system is down. Transport operators likewise carry ongoing operational and investment costs independent of system performance.

This results in a “double penalty”: companies are simultaneously burdened with ETS costs and unavoidable transport and infrastructure costs due to a disruption beyond their control. These liabilities are extremely difficult to insure commercially at competitive rates because of the uncertainty and systemic nature of the risk. Without a dedicated policy solution, this risk threatens investment confidence in shared CO₂ transport and storage systems at a critical early stage of CCUS development.

Recommendation

Preventing double penalties in the CCUS value chain through an EU-level guarantee mechanism

The European Commission should establish an EU-level guarantee mechanism, funded through EU ETS revenues or implemented through a limited provision of free allowances, to cover ETS liabilities for emitters and transport operators when involuntary CO₂ venting or operational shutdowns occur due to failures elsewhere in the CCUS chain.

Such a mechanism should:

- Provide a safety net for liabilities that cannot be commercially insured at competitive prices.
- Prevent emitters and transport operators from paying ETS compliance costs and infrastructure costs at the same time for reasons outside their control.
- Support “ship-or-pay” structures while removing unfair financial burdens on participating emitters.
- Reduce risk for early movers and enhance investor confidence during the scale-up of CCUS hubs and shared infrastructure.

By implementing this guarantee mechanism, the EU would ensure fairness for companies that invest in decarbonisation, enable stable development of CO₂ transport and storage networks, and accelerate the deployment of CCUS as a key pillar of Europe’s climate strategy.



