

# CCSA WG Focus session

## Consultation: CO<sub>2</sub> Transportation Infrastructure & Markets

Alberto Sanchez

30/10/2025



# Agenda

	Time	Topic	Speaker
1.	15:30 CET	Welcome and housekeeping	CCSA Secretariat
2.	15:35 CET	Introduction of new co-chairs	CCSA Secretariat
3.	15:40 CET	CO <sub>2</sub> consultation planning & overview	CCSA Secretariat
4.	15:45 CET	Discussion on Consultation questions	All
5.	16:25 CET	AOB & conclusion	CCSA Secretariat

# Housekeeping

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- Meeting is being recorded, slides and recording will be circulated with members
- If you are not speaking, please mute your microphone
- Please **raise your hand** if you wish to comment, you will be invited to come off of mute, if you can also turn on your camera
- Please also pose any **comments in the chat** and these will be picked up by the secretariat

# Welcome to the new co-chairs

- Working Group co – chairs:
  - **Lukas Reichenberger**, Senior Regulatory Affairs Advisor, **OGE**
  - **Thomas Le Grand**, Strategy Analyst, **NaTran**
  - **Jasper Heikens**, Chief Commercial Officer, **Ecolog**
  - **Caterina Molinari**, Senior Manager Decarbonization Projects, **Snam** (appointed earlier this year)



## EU CO<sub>2</sub> Transport CCSA Working Group Terms of Reference

### 1) Mission

The EU CO<sub>2</sub> Transport Working Group is committed to addressing key industry issues related to EU CO<sub>2</sub> Transport & infrastructure, with the aim of accelerating the development of the Carbon Capture, Utilisation, and Storage (CCUS) sector in the EU. The Group convenes leading stakeholders and experts to provide insights and evidence to government, regulators, and the wider market, supporting efforts to overcome current barriers and promote the establishment and growth of the CCUS industry.

### 2) Objectives

- Influence EU CO<sub>2</sub> transport policy to help accelerate the deployment of CCUS, by providing strategic input and fostering alignment across industry stakeholders.
- Ensure that EU CO<sub>2</sub> transport policy and regulatory frameworks are informed by a strong, evidence-based understanding of sector needs and opportunities.
- Promote a shared understanding of the key challenges and innovation needs shaping the development of CO<sub>2</sub> transport in Europe.
- Develop common industry positions and publish influential policy papers to shape CCUS policy development.
- Foster shared understanding between European stakeholders to enable effective cross-market policy solutions.
- Support the delivery of EU CO<sub>2</sub> Transport by European Commission or the relevant regulator.
- Respond to European Commission's consultations with a unified industry voice to influence the development of EC CO<sub>2</sub> Transport Regulatory package.

### 3) Working Group Membership

Working group members are representatives from organisations that hold full membership with the CCSA and pay membership fees. Members are self-appointed from these organisations, volunteering to receive communications and participate in sessions organised by the CCSA.

There is no limit to the number of participants in a working group; however, individuals are expected to hold roles within their organisations that are relevant to the group's focus. Members are expected to actively participate in meetings, whether in person or online, by providing insights, raising questions, and contributing evidence where appropriate.

If a member is unable to attend a meeting, they may nominate a relevant proxy from their organisation to participate on their behalf.

Members of the working group may choose to leave the working group at any time. Written notice of this should be given to the CCSA secretariat.

### 4) Governance

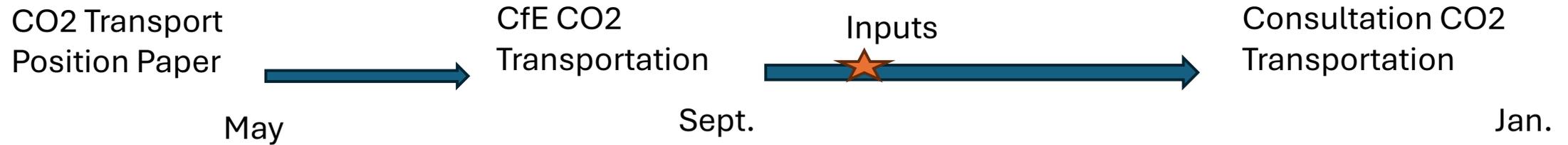
The Carbon Capture & Storage Association

# Consultation planning

		Internal planning for the response to the EU Consultation on CO2 transportation infrastructure																												
week commencing	06-oct					13-oct					20-oct					27-oct					03-nov									
	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F					
	Consultation opens					Preparing templates and communication to members on details					Share first draft (part 1)					Feedback period					Focus session									
																						Questions 1-26								
week commencing	10-nov					17-nov					24-nov					01-dic					08-dic									
	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F					
		Public		Focus session										Share second draft					Feedback period					ICM Forum, Athens				Gather inputs from ICM		
		Questions 27-56																												
week commencing	15-dic					22-dic					29-dic					05-ene					12-ene									
	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F					
	Share final draft				Last days for final comments																									
		RegPol Forum							Christmas									New year												
																									Consultation deadline					

- Organise an event on CO2 Transport in the EU Parliament (2026)

# Main CCSA position



**Regulatory framework:** Provide long-term visibility and predictability to stimulate investment in EU-wide CO<sub>2</sub> infrastructure, with clear access rules and tailored flexibility for early projects.

**Risk mitigation tools:** Introduce EU-level mechanisms like revenue guarantees and Contracts for Difference (CfDs) to support first movers and de-risk early projects.

**Address structural barriers:** Ensure reliable, non-discriminatory access to infrastructure, flexible third-party access, gradual regulation, and cross-border cooperation with non-EU countries like the UK and Norway.

**Support Non-Pipeline Transport (NPT):** Ensure funding mechanisms for NPT routes, maintain shipping as a commercial activity, and provide clear liability and ownership guidelines for multimodal transport chains.

**Infrastructure and market development:** Promote standardisation, scalable capacity for early pipelines, and create EU CO<sub>2</sub> aggregation platforms to connect emitters with storage operators.

**Financing and de-risking:** Increase funding through EU and national schemes, create dedicated CCUS funding streams, establish guarantee mechanisms, and empower the European Investment Bank (EIB) to de-risk projects.

**Enhance cross-border cooperation:** Resolve legal uncertainties for CO<sub>2</sub> transport and storage with third countries, establish EU-UK agreements, and engage with North African partners for decarbonisation efforts.

**Infrastructure planning:** Develop a coordinated EU-wide infrastructure plan aligned with electricity, gas, and hydrogen planning, including repurposing existing oil and gas assets for CO<sub>2</sub> transport and storage.

# Consultation overview

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The CCSA draft file includes **all 55 questions**, with placeholders for responses.

In this questionnaire, the more general questions are set out in Chapter 1, while specific questions on technical and regulatory issues are set out in Chapters 2 to 5.

1. **General questions** (Q1 - Q5)
2. **Providing regulatory certainty and Investor confidence** (Q6 – Q19)
3. **Removing barriers to Cross-Border CO<sub>2</sub> transport** (Q20 – Q38)
4. **Supporting a competitive CO<sub>2</sub> value chain** (Q39 – Q46)
5. **De-risking the development of CCS** (Q47 - Q55)

Each section includes **contextual text** from the Commission before specific questions, which provides policy framing and definitions. This will not be included in the final submission.

**Response Format:** each question in the consultation has a **500-character limit**, concise and focused answers are essential.

The CCSA will also include an **annex as an attachment** to the consultation where our response will take longer or need detailed explanation.

# Draft questions of the consultation

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# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 1/ General questions

Question in the Consultation	CCSA draft reply
<p>1. The industrial carbon management value chain still has room to mature. <b>A regulatory framework</b> that is fit for purpose must take this into account. <b>With that in mind, what regulatory model at EU level do you consider suitable to support the emergence of an integrated and competitive EU market for CO<sub>2</sub>?</b></p>	<p>A dedicated EU framework should regulate CO<sub>2</sub> transport and storage as <b>essential infrastructure, ensuring open access, harmonised rules, and investor confidence</b>, while allowing Member State flexibility for storage arrangements. <b>A common approach</b> is needed and rules might be developed <b>in phases</b>, depending on how the market is being developed.</p>
<p>2. The development of CO<sub>2</sub> markets seems highly likely. However, a significant amount of uncertainty remains. How should this uncertainty be taken into account when designing a regulatory framework that is fit for purpose?</p>	<p>CCSA recommends a <b>phased approach: lighter, flexible rules</b> in the early phase to enable first movers, progressively transitioning to a <b>harmonised regime</b> as markets mature. Regulation should avoid over-prescription at this stage, while providing investor visibility and protecting early commitments from retroactive change.</p>
<p>3. With this in mind, what should be the focus of an EU market regulatory framework?</p>	<p>The framework should ensure <b>non-discriminatory access, cross-border interoperability</b>, proportionate oversight and risk-allocation clarity. It must integrate with wider infrastructure planning (electricity, gas, hydrogen), remove legal barriers to third-country cooperation, and deliver predictable cost-recovery conditions for bankable investment.</p>

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 1/ General questions

Question in the Consultation	CCSA draft reply
<p>4, The industrial carbon management strategy and the 2024 impact assessment picture a future where CO<sub>2</sub> is not only permanently stored but also one where CO<sub>2</sub> is captured (such as through bioenergy with carbon capture and storage (BECCS) and direct air capture (DAC)) and used in synthetic products, chemicals or fuels, especially after 2040. What impact should this have on market design?</p>	<p>CCSA supports a <b>unified framework covering storage and utilisation</b>, with harmonised certification and room for traceability for different CO<sub>2</sub> types (fossil, biogenic and atmospheric). <b>Clear accounting rules</b> are needed to prevent double counting and to value negative emissions and CO<sub>2</sub> use without fragmenting the market.</p>
<p>5. Laying down rules can create legal certainty and regulatory predictability. However, <b>laying down rules</b> too early can be risky for a still-developing value chain. <b>How important would it be to set out the following regulatory principles early on in order to support the development of a dedicated CO<sub>2</sub> network and market framework?</b></p>	<p><b>Early clarity is essential</b> to unlock FIDs and synchronise value-chain deployment. The framework must secure grandfathering and tailored <b>flexibility for strategic first movers</b>, particularly those supported by public funding, to avoid disincentivising projects already at advanced stage.</p>

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 2/ Providing regulatory certainty and investor confidence to develop the necessary CO<sub>2</sub> infrastructure

Question in the Consultation	CCSA draft reply
6. How do you see the current and future role of CO <sub>2</sub> transportation modes? Please indicate whether and to what extent you agree with the following statements.	CCSA stresses that pipelines alone cannot deliver deployment at pace. <b>All modes</b> —ship, rail, road and barge—must be fully <b>recognised</b> . Funding, planning and eligibility rules must not disadvantage non-pipeline transport, which is essential for <b>geographically constrained</b> emitters and <b>cross-border export</b> routes.
7. <b>What do you consider to be the main barriers to the development of a CO<sub>2</sub> transport infrastructure, both within the EU and with third countries?</b>	Key barriers include <b>regulatory uncertainty</b> , fragmented permitting, <b>cross-border legal inconsistency</b> , insufficient <b>de-risking instruments</b> , and lack of visibility on storage access. Without predictable rules, harmonised planning and risk-sharing, private capital will remain constrained and deployment delayed.
8. Current network planning tools for electricity, gas and hydrogen focus on the planning of pipeline networks. In your view, how should the planning of CO <sub>2</sub> transport infrastructure take into account non-pipeline modes of transport?	EU network planning should explicitly <b>include multimodal chains</b> (ports, hubs, terminals and vessels) on equal footing with pipelines. A <b>level playing field</b> is needed in eligibility, funding and risk allocation to avoid pipeline-only bias and to ensure inclusive, continent-wide access to storage.
9. What is your position on CO <sub>2</sub> pipeline network planning?	CCSA supports an <b>EU-coordinated plan</b> aligned with other energy networks and starting from first-moving clusters. Planning should enable anticipatory capacity (including repurposing of oil and gas assets) while not <b>delaying frontrunners</b> pending long-term blueprints.

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 2/ Providing regulatory certainty and investor confidence to develop the necessary CO<sub>2</sub> infrastructure

Question in the Consultation	CCSA draft reply
10. Which of the below <b>CO<sub>2</sub> pipeline network planning measures do you think would be needed to enable the necessary CO<sub>2</sub> transport infrastructure to be planned and developed in a timely and cost-efficient way?</b>	Timeliness requires coordinated EU scenarios, <b>integration with TEN-E/NZIA</b> , and permission to oversize early assets to capture scale efficiencies. Funding and tariff frameworks must allow intertemporal cost recovery and avoid penalising first adopters
11. In your view, what are the trade-offs between CO <sub>2</sub> and other networks, and what are the possible benefits of integrated network planning?	Integration with energy planning <b>enables cost optimisation, asset reuse</b> and coherent sequencing. However, CO <sub>2</sub> transport/storage must retain dedicated regulatory attention to avoid dilution of CCS-specific needs in multi-sector processes.
12. The CCUS value chain is beginning to develop, and investment decisions have been and are likely to continue to be taken before any new rules have been adopted on CO <sub>2</sub> pipeline and storage projects. How do you think such cases should be treated?	CCSA urges grandfathering or exemptions for <b>advanced projects</b> to preserve contractual certainty and protect public-backed frontrunners from retroactive changes. <b>Stability for early movers</b> is a precondition for bankability and for triggering broader network formation.
13. Reusing existing energy infrastructure that is no longer needed (e.g. oil and natural gas pipelines and oil and gas rigs) is considered by some as a solution for developing the necessary CO <sub>2</sub> infrastructure. Would you agree?	Yes. <b>Reusing oil and gas pipelines</b> , rigs, and terminals can significantly reduce costs, permitting time, and environmental impact. EU rules should clarify transferability of existing permits, rights of way, and easements. Repurposing should be enabled through clear guidance on permit transferability, liability allocation and technical compatibility requirements

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 2/ Providing regulatory certainty and investor confidence to develop the necessary CO<sub>2</sub> infrastructure

Question in the Consultation	CCSA draft reply
14. In your view, are there any barriers to the repurposing of existing energy pipeline infrastructure for the transport of CO <sub>2</sub> today?	Main barriers include <b>unclear regulatory status</b> , uncertainty around ownership and liability transfer, and limited <b>technical standards</b> for CO <sub>2</sub> compatibility. Member States should clarify if existing permits and land rights remain valid when pipelines shift from gas to CO <sub>2</sub> . Coordinated EU guidance would accelerate reuse and cut infrastructure costs.
15. <b>In your view, can energy infrastructure assets other than pipelines (e.g. terminals) be reused for the transport of CO<sub>2</sub>?</b>	Yes, terminals, compression stations, and storage facilities from the oil and gas sector could be <b>repurposed for CO<sub>2</sub></b> handling. EU guidance should recognise these assets and enable funding for adaptation. Leveraging existing infrastructure reduces emissions, saves costs, and accelerates deployment of the CO <sub>2</sub> network.
16. Moreover, the EU ETS Directive includes provisions for the permitting of the activity of CO <sub>2</sub> transport for storage. To what extent do you agree that these pieces of legislation set out an effective, coherent and durable framework to enable permitting and land use access for CO <sub>2</sub> transport infrastructure?	<i>no free text box for a written response in this question.</i> If we want to give a reply, it needs to be as an attachment to the consultation.

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 2/ Providing regulatory certainty and investor confidence to develop the necessary CO<sub>2</sub> infrastructure

Question in the Consultation	CCSA draft reply
17. Do you think that the effectiveness, coherence and durability of the permitting procedures for CO <sub>2</sub> transport infrastructure can be improved?	<b>Harmonised permitting</b> procedures with clear deadlines, digital platforms, and cross-border coordination would <b>reduce administrative burden</b> . Dedicated capacity in national authorities and clear EU guidance would enhance effectiveness and investor confidence. Provisions should <b>mirror best practices</b> from electricity and hydrogen permitting.
18. Regarding the single point of contact mentioned in Q17 that assist and guide the applicants for the permitting of CO <sub>2</sub> transport infrastructure projects, to which extent do you agree with the following statements?	no free text box for a written response in this question. <i>If we want to give a reply, it needs to be as an attachment to the consultation.</i>
19. <b>Which model of cooperation and coordination would you prefer for CO<sub>2</sub> transport infrastructure permitting, considering that the ‘single point of contact’ mode can deal with more complex integrated projects than a ‘one-stop shop’ model.</b>	A centralised “ <b>single point of contact</b> ” with cross-sectoral coordination is most effective for CO <sub>2</sub> infrastructure, enabling integrated oversight of pipeline and non-pipeline projects. It should have legal authority to streamline environmental and land-use permits while maintaining environmental integrity and local engagement.

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 3/ Removing barriers to the cross-border transportation of CO<sub>2</sub>

Question in the Consultation	CCSA draft reply
<p>20. Do you think that certain international treaties represent a restriction to the cross-border transport of CO<sub>2</sub> within the EU (and EEA)?</p>	<p>Yes, these treaties, such as the London Protocol, OSPAR, and HELCOM, create uncertainty for CO<sub>2</sub> exports and imports within the EEA. Although some flexibility exists, legal inconsistencies between conventions and EU law remain and could hinder offshore storage and cross-border value chains. <b>Full ratification</b> of these treaties will clear the policy landscape and speed-up project deployment. Recognition of CO<sub>2</sub> as a commodity will be beneficial for speed-up operations.</p>
<p>21. If you indicated in the previous question that at least one international treaty represents a restriction for cross-border CO<sub>2</sub> transport within the EU, please specify the nature of the restriction for each treaty</p>	<p>Restrictions stem from differing definitions of “waste” and prohibitions on transboundary CO<sub>2</sub> movement for offshore storage. Lack of uniform interpretation among signatories causes legal uncertainty for operators. Alignment or amendment of conventions, or EU legal clarification, is needed to enable consistent cross-border operations.</p>
<p>22. In your opinion, what appropriate measures could be taken at EU level to address potential legal uncertainties and restrictions arising from international treaties, in order to facilitate cross-border CO<sub>2</sub> transport for permanent geological storage purposes?</p>	<p>The EU should negotiate clarifications or amendments within relevant conventions and establish a legal framework recognising compliant storage sites under EU law. A clear “EU arrangement” should guarantee legal certainty for all <b>EEA operators</b> and support long-term agreements for <b>CO<sub>2</sub> storage across borders</b>.</p>



# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 3/ Removing barriers to the cross-border transportation of CO<sub>2</sub>

Question in the Consultation	CCSA draft reply
<p>23. Which third countries/regions have CO<sub>2</sub> transport and storage infrastructure that could be relevant for your industrial carbon management project?</p>	<p>The <b>UK and Norway</b> are key partners, given their large-scale storage capacity and operational projects. Cooperation with <b>North African countries</b> such as Egypt, Tunisia, and Algeria, should also be explored to develop future storage and industrial decarbonisation opportunities.</p>
<p>24. For what reason(s) might access to potential CO<sub>2</sub> transport and storage infrastructure in third countries be relevant for your industrial carbon management project.</p>	<p>Cross-border access supports cost-effective decarbonisation by linking emitters to nearby storage. It increases resilience, optimises capacity use, and reduces overall costs. <b>Facilitating EU-UK-EEA</b> interoperability would unlock shared benefits and accelerate industrial carbon management deployment across Europe.</p>
<p>25. Do you think that any of the following factors could pose a restriction on the cross-border movement of CO<sub>2</sub> to or from third countries? Please indicate whether and to what extent each factor represents a restriction.</p>	<p>Key restrictions include lack of mutual legal recognition, differing ETS and CCS frameworks, and absence of liability-sharing mechanisms. The EU should establish bilateral or multilateral agreements to align standards, ensuring permanent storage integrity and transparent accounting of cross-border CO<sub>2</sub> flows.</p>

# CO<sub>2</sub> Transportation Infrastructure & Markets – questions consultation

## Part 3/ Removing barriers to the cross-border transportation of CO<sub>2</sub>

Question in the Consultation	CCSA draft reply
26. For cross-border CO <sub>2</sub> transport, what do you think the applicable rules should be determined by?	<b>Cross-border rules</b> should be based on law of the jurisdiction where physical leakage occurs for emergency response and remediation; contractual allocation of operational responsibility and financial exposure along the chain; and EU minimum standards for monitoring, reporting and liability to ensure consistency, clear hand-over points and no regulatory gaps.
<b>27. Do you think that further measures should be taken to prevent CO<sub>2</sub> leakage in the CO<sub>2</sub> transport infrastructure?</b>	Yes. <b>Require harmonised monitoring and inspection protocols</b> , stringent material/engineering standards, routine integrity testing, emergency shut-down systems, and mandatory operator competence certification. Complement technical rules with contractual de-risking tools and an EU incident reporting and lessons-sharing platform.
28. In the event of a cross-border CO <sub>2</sub> leakage, particularly in relation to international obligations under the UNFCCC, how should liability and reporting responsibilities be determined between countries?	no free text box for a written response in this question. If we want to give a reply, it needs to be as an attachment to the consultation.
29. Would you agree that rules should be introduced on emergency response in the event of accidental release of CO <sub>2</sub> from the pipeline network?	no free text box for a written response in this question. If we want to give a reply, it needs to be as an attachment to the consultation.



# Next steps

## Actions

- Slides of the focus session will be circulated
- Second focus session on 13 Nov, 15:30 CET
- Send your feedback by 6 Nov
- Working in a second draft by late-Nov



**Thank you!**

 **CCSA**