CCSA WG Focus session

Consultation: CO_2 Transportation Infrastructure & Markets

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13/11/2025

CCSA

Agenda

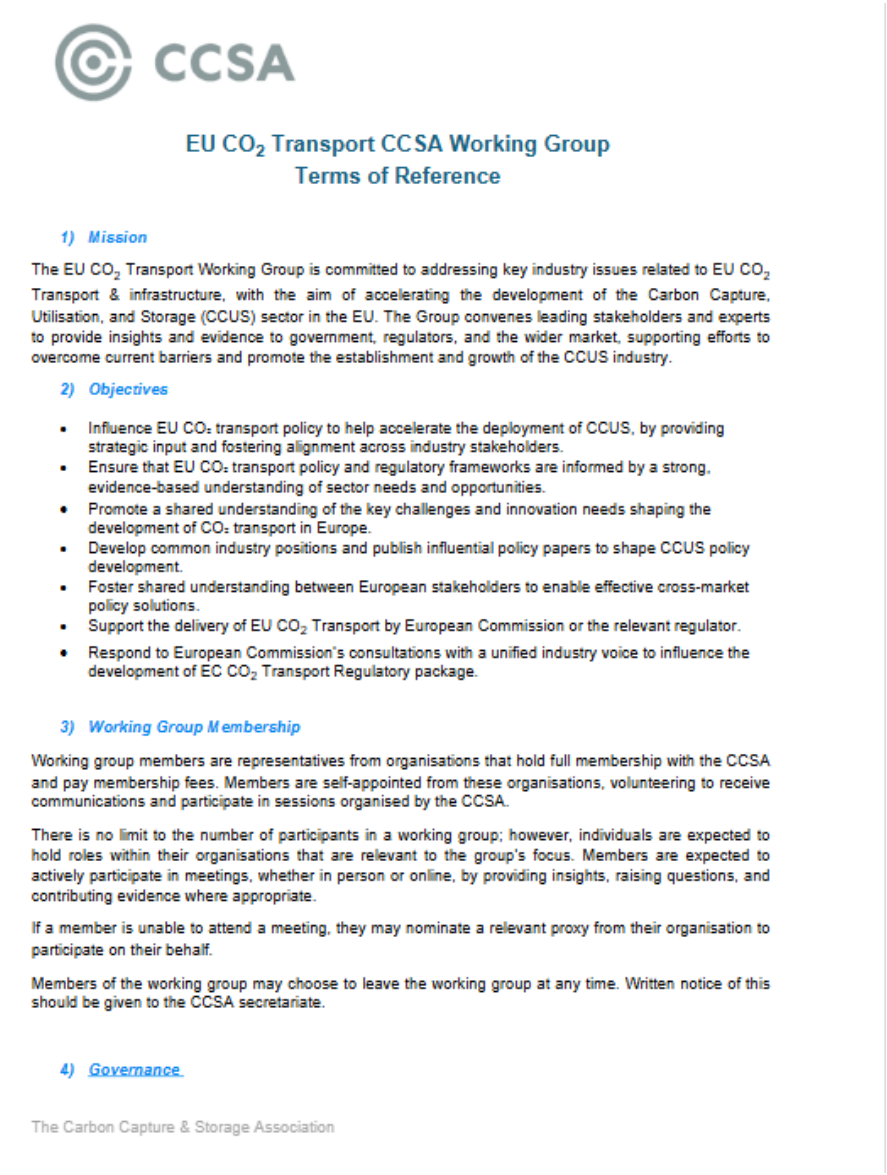
	Time	Topic	Speaker
1.	15:30 CET	Welcome and housekeeping	CCSA Secretariat
2.	15:35 CET	Introduction of new co-chairs	CCSA Secretariat
3.	15:40 CET	CO_2 consultation planning & overview	CCSA Secretariat
4.	15:45 CET	Discussion on Consultation questions	All
5.	16:25 CET	AOB & conclusion	CCSA Secretariat

Housekeeping

- 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)



CCSA

EU CO_2 Transport CCSA Working Group
Terms of Reference

1) *Mission*

The EU CO_2 Transport Working Group is committed to addressing key industry issues related to EU CO_2 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_2 transport policy to help accelerate the deployment of CCUS, by providing strategic input and fostering alignment across industry stakeholders.
- Ensure that EU CO_2 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_2 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_2 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_2 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 secretariate.

4) *Governance*

The Carbon Capture & Storage Association

Consultation planning

Internal planning for the response to the EU Consultation on CO2 transportation infrastucture

week commencing	M	T	W	T	F
06-oct	Consultation opens				
13-oct	Preparing templates and communication to members on details				
20-oct		Share first draft (part 1)			
27-oct	Feedback period			Focus session	
03-nov					

Questions 1-26

week commencing	M	T	W	T	F
10-nov		Public holiday		Focus session	
17-nov					
24-nov	Share second draft	Feedback period			
01-dic					
08-dic	ICM Forum, Athens		Gather inputs from ICM		

Questions 27-56

week commencing	M	T	W	T	F
15-dic	Share final draft			RegPol Forum	
22-dic			Christmas		
29-dic					New year
05-ene					Consultation deadline
12-ene					

Last days for final comments

Office closed

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

Consultation overview

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_2 transport** (Q20 – Q38)
4. **Supporting a competitive CO_2 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

CCSA

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 3/ Removing barriers to the cross-border transportation of CO_2

Question in the Consultation	CCSA draft reply
30. At EU level, the European Committee for Standardisation (CEN) is working towards a standard for CO_2 transportation by pipeline, with work expected to conclude in Q2 2026. Do you agree that minimum CO_2 quality standards and specifications will contribute to the following?	Minimum CO_2 **quality standards** reduce market fragmentation, lower compatibility risks, protect storage integrity and enable interoperable transport networks. EU adoption of CEN/ISO guidance will **accelerate** cross-border trade and reduce bespoke technical barriers, while allowing case-by-case flexibility where justified.
32. When different CO_2 streams from industrial processes and - in the future from, DAC are mixed together in the transport infrastructure, the quality of the CO_2 can change. To ensure that CO_2 quality remains acceptable throughout its transportation as well as affordable, how should the CO_2 quality requirements be?	Quality requirements should be performance-based: specify maximum levels of **corrosives/toxic impurities** and require blending management, batch tracing and periodic testing. Allow pragmatic thresholds to balance **material protection** and **purification costs**; require mitigation measures (e.g., inline conditioning) where needed. Quality should **not** be extremely **restrictive** as that might prevent some emitters from entering the market.

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 4/ Supporting the emergence of a competitive, cost-effective CO_2 value chain

Question in the Consultation	CCSA draft reply
39. What competitive conditions would you expect in various parts of the CO_2 value chain? Please indicate whether and to what extent you agree with each of the following statements.	CCSA recognises that **competitive dynamics will vary across the CO_2 value chain**. Onshore pipeline transport may, in some cases, exhibit limited competition due to geographic or technical factors, while **offshore transport—particularly shipping—can remain open and competitive**. The regulatory framework should remain **flexible and evidence-based**, avoiding rigid third-party access or unbundling rules that could stifle investment. Instead, it should focus on ensuring **transparency, fair and non-discriminatory access where appropriate**, and preventing abuse of market power as competition evolves.

Q39. What competitive conditions would you expect in various parts of the CO_2 value chain? Please indicate whether and to what extent you agree with each of the following statements.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
Pipeline transportation is characterised by high fixed costs and low variable or marginal costs.	○	○	◉	○	○	○
The capacity of CO_2 pipelines is highly scalable by e.g. increasing pressure levels.	○	○	○	◉	○	○
CO_2 pipelines have large economies of scale.	○	○	○	○	○	○
Construction costs for pipelines imply that it is attractive to build capacity for future capacity demand (given that volume risks are managed).	○	○	◉	○	○	○
It is economically inefficient to build multiple competing pipelines.	○	◉	○	○	○	○
The market for CO_2 storage has high entry barriers.	○	○	○	◉	○	○
The number of companies that are well placed to develop storage sites is low.	○	◉	○	○	○	○
Opportunities for the geological storage of CO_2 are not readily available in large parts of the EU. Where storage opportunities are limited, storage operators have significant market power.	○	○	○	◉	○	○
CO_2 transportation by ship is likely to be an activity subject to effective competition.	○	◉	○	○	○	○
CO_2 transportation by truck is likely to be an activity subject to effective competition.	○	◉	○	○	○	○
CO_2 transportation by train is likely to be an activity subject to effective competition.	○	◉	○	○	○	○

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 4/ Supporting the emergence of a competitive, cost-eff

Question in the Consultation	CCSA draft reply
41. Is it necessary to introduce measures to ensure real and non-discriminatory access to CO_2 networks? What should such measures involve?	Establish transparent third-party access rules with clear criteria, regulated tariffs, and publication of available capacity. Independent oversight is needed to prevent vertically integrated operators from favouring affiliates. Temporary negotiated TPA could apply early, moving to regulated access as the market matures.

Q41. Is it necessary to introduce measures to ensure real and non-discriminatory access to CO_2 networks? What should such measures involve? Please indicate your position for each statement.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	No opinion
CO_2 networks do not confer market power to vertically integrated companies, so there is no reason to fear discriminatory anti-competitive conduct. Competition law provides for sufficient enforcement measures.	○	○	○	◉	○	○
There is no risk of vertical integration of CO_2 networks with downstream or upstream network users, so it is not necessary to set rules to avoid discriminatory conduct.	○	○	◉	○	○	○
Discriminatory conduct is a significant risk. However, the provisions of Article 21 of the CCS Directive on third-party access at national level are sufficient to control this risk.	○	○	◉	○	○	○
Discriminatory conduct is a significant risk, especially if CO_2 networks are vertically integrated with downstream users, such as storage operators.	○	◉	○	○	○	○
Discriminatory conduct is a significant risk, especially if CO_2 networks are vertically integrated with upstream users, such as emitters.	○	◉	○	○	○	○
Discriminatory conduct is a significant risk. We need more rules to ensure CO_2 markets will be competitive.	○	◉	○	○	○	○
In order to ensure effective third-party access to CO_2 pipelines, access rules also need to exist for installations that are ancillary to pipeline transportation or are needed to enter or exit the pipeline system (such as CO_2 liquification and purification installations and terminals).	○	○	◉	○	○	○

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 5/ De-risking the development of CCS

Question in the Consultation	CCSA draft reply
47. Financing and de-risking cross-chain risk under the EU ETS. When an outage (service interruption) occurs (regardless of whether a leak was detected or not) market participants will be exposed to financial risks: if they have to vent the CO_2, they are liable for costs under the ETS. Depending on their contractual situation they may also need to continue paying for the infrastructure capacity which became unavailable. What is the best way to address such cross-chain risk?	Introduce contractual and **financial de-risking mechanisms**—such as guarantees, insurance pools, and EU-backed funds—to cover liabilities from outages or leaks across the chain. A coordinated approach involving the **EIB and Innovation Fund** can share risk fairly among capture, transport, and storage participants.
49. Would you agree that financing the development of cross-border CO_2 pipeline infrastructure may pose more challenges as compared to financing national CO_2 pipeline infrastructure?	Key barriers include **regulatory uncertainty**, fragmented permitting, **cross-border legal inconsistency**, insufficient **de-risking instruments**, and lack of visibility on storage access. Without predictable rules, harmonised planning and risk-sharing, private capital will remain constrained and deployment delayed.

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 5/ De-risking the development of CCS

Question in the Consultation	CCSA draft reply
51. What do you think would be the appropriate tools and measures to mitigate the potential risks to the development of CO_2 pipelines, including cross-border pipelines?	CCSA supports blended-finance models combining public guarantees, revenue-stabilisation schemes and long-term cost-recovery mechanisms to enable anticipatory investment in CO_2 infrastructure. Early oversizing should be eligible for **grant and guarantee support**, with risk-sharing tools ensuring finance ability of first-mover projects.

Q51. What do you think would be the appropriate tools and measures to mitigate the potential risks to the development of CO_2 pipelines, including cross-border pipelines? Please indicate your view for each tool/measure.

Tools/Measures	Yes, needed for financing national infrastructure development	Yes, needed for financing cross-border infrastructure development	No, not needed	No opinion
The development of CO_2 pipelines should be financed with market revenues only.	○	○	○	○
Non-financial measures such as tools increasing transparency and visibility of infrastructure plans and developments.	○	○	○	○
Any financial support should be financed internally from the CO_2 or energy systems (e.g. network user tariffs).	○	○	○	○
If direct financial support is granted, this should be provided to pipeline network users, not pipeline operators. Pipeline operators can of course indirectly benefit from this support if network users are ready to pay for network services.	○	○	○	○
Aid should be granted directly to pipeline operators.	○	○	○	○

Other(s) - Please specify.

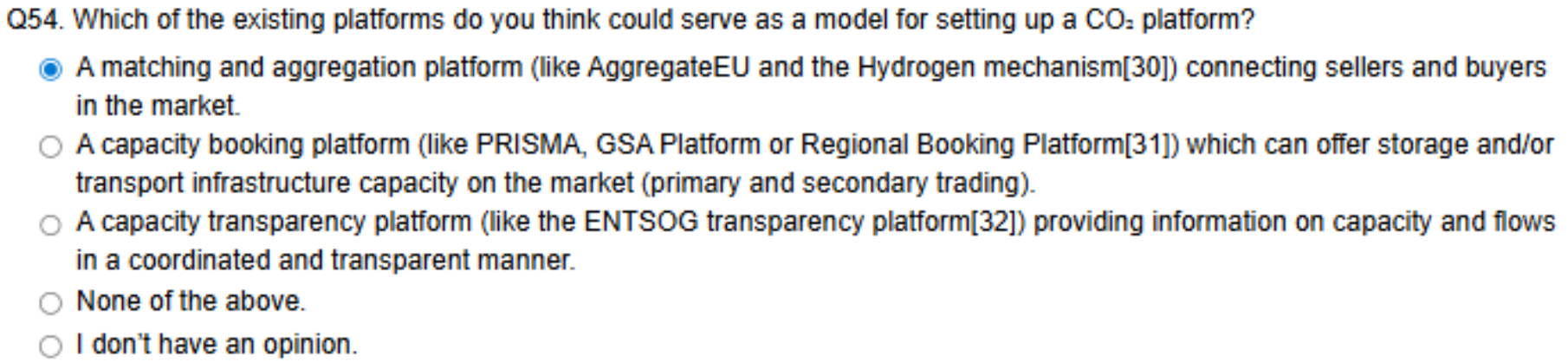
500 character(s) maximum

0 out of 500 characters used

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 5/ De-risking the development of CCS

Question in the Consultation	CCSA draft reply
54. Which of the existing platforms do you think could serve as a model for setting up a CO_2 platform?	AggregateEU and the European Hydrogen Backbone planning tools provide useful models. The CO_2 platform should combine demand aggregation, capacity matchmaking, and data transparency while remaining technology-neutral and market-driven under EU oversight.


Q54. Which of the existing platforms do you think could serve as a model for setting up a CO_2 platform?

- (●) A matching and aggregation platform (like AggregateEU and the Hydrogen mechanism[30]) connecting sellers and buyers in the market.
- ( ) A capacity booking platform (like PRISMA, GSA Platform or Regional Booking Platform[31]) which can offer storage and/or transport infrastructure capacity on the market (primary and secondary trading).
- ( ) A capacity transparency platform (like the ENTSOG transparency platform[32]) providing information on capacity and flows in a coordinated and transparent manner.
- ( ) None of the above.
- ( ) I don't have an opinion.

CO_2 Transportation Infrastructure & Markets – questions consultation

Part 5/ De-risking the development of CCS

Question in the Consultation	CCSA draft reply
55. What functionalities do you think such an CO_2 platform should have?	Core functions: mapping of emitters and storage capacity, transparent capacity auctions, price discovery, and digital chain-of-custody for CO_2 volumes. It should facilitate cross-border bookings, publish quality data, and host knowledge-sharing to improve coordination and investor visibility.

Q55. What functionalities do you think such an CO_2 platform should have? Multiple answers are possible:

- [x] Increase market transparency and visibility of current and future supply (captured CO_2 volumes) and demand (CO_2 storage capacity and usage).
- [x] Provide information on pipeline infrastructure access conditions.
- [ ] Improve coordination along the CO_2 value chain to support final investment decisions (FIDs) and de-risk (infrastructural) investments by facilitating contacts between emitters, transport infrastructure operators and storage operators; matching storage demand of emitters with supply offers from storage operators (in terms of time and location), etc.
- [x] Provide information to facilitate CO_2 infrastructure planning by collecting information on CO_2 pipeline and storage capacity needs and availability.
- [x] Aggregate volumes of captured CO_2 by small(er) CO_2 emitters (e.g. SMEs) in order to help them access the transportation and storage.
- [ ] Support the emergence of tradable capacity products that are mutually compatible.
- [ ] Support the allocation of CO_2 storage and transportation capacity.
- [ ] Support the secondary trading in already contracted storage and transportation capacity.
- [x] Support the synchronisation of the allocation of CO_2 storage and transportation capacity to help streamline FIDs throughout the value chain.
- [ ] I don't have an opinion.

Next steps

Actions

- Slides of the focus session will be circulated
- Send your feedback
- Working in a second draft by late-Nov


Thank you!
CCSA