

Inputs from kick off 20 January 2026

The following summarises the key takeaways from the ten discussion topics at the Nordic CCS programme kick-off in January. These reflect inputs to the program from stakeholders during the event and do NOT represent the official programme or member state positions. The dots therefore represent inputs to the Nordic CCS Program on how to create better conditions in the field.

This is a high-level summary highlighting the main themes. It does not include all contributions.

Capture

Industrial emitters and the challenges they face

Main takeaways:

- **Alignment between the Nordic countries e.g. on funding schemes**
- **Establish a risk sharing mechanism for the full value chain**
- **Mitigate chicken and egg problem through guarantees or coordination and identify where the barriers are.**

Summary of notes

- Capture technology is not one size fits all and some industries still have to achieve breakthroughs to be able to capture CO₂.
- The program should explore how the states can mitigate the chicken and egg problem through guarantees or coordination and identify where the barriers sit.
- Ensure alignment across member states on use of claims.
- There should be a risk sharing mechanism.
- Industrial emitters need a competitive market for transport and storage to get the costs down.
- Clarity of the role of CCS and CDR in the ETS
- Alignment of Nordic support schemes. Current funding schemes are insufficient.

- Encourage procurement for “green” products made with CCS. For example cement; the state could choose to buy cement with low emissions.
- Industry needs flexibility and realistic timelines.
- There should be sharing of does and don’ts in the industry.

Topic: The role of removals in the value chain (e.g. BECCS, DACCS and DOCCS)

Main takeaways:

- **Risk management and risk sharing (who should take the risk and how can it be handled)**
- **Clear, common policy and regulatory framework in the Nordics, and coordination towards EU.**
- **Clear communication and plans for CCS and CDR.**

Summary of notes

- Most discussions were centred around BECCS. If DAC and DOC should be scaled, a lot of work needs to be done so the industry don’t encounter the same roadblocks as BECCS.
- Communication needs to be clearer in the distinction of CCS and CDR. Different action plans for CCS and CDR.
- There is a need for initiative in voluntary markets. Bigger projects might be more viable for outside investors which can create joined Nordic CCS ventures.
- There is a need for 1) a clear distinction of who is responsible when things go wrong, and 2) “Nordic mentality”, investors should not have free rein.
- Politics need to stick to the goals that are said => Stable policy.
- Common regulatory framework for Nordic Guidelines or joined analysis, for the different industries together.
- More coordination between the Nordic countries in policy and similar targets for example towards EU makes a strong Nordic Region.
- The legal framework needs to make CCS easier. (View it as a system).
- Make it attractive for actors to get credits if they go further and do neutralization.
- The struggle is the risk. The risk is too large (In the private companies the consumers will have to pay which is different with the public companies).

- Investing needs to be made viable, we need to help companies take risk. 1) make the motive clear, we are working for net zero 2050, the companies need to invest because it is essential.
- Right now, CDR and CCS is framed as penance and it should be framed as necessary, 2) instead of making it riskless, we need to make it okay to take small risks. (If we didn't invest in windfarms in 80's, it wouldn't be cheap now. This is the same argument we need to have again.)
- Make comparisons between the Nordic countries on how we set up tenders.

Financing and unlocking capital for CCS

ETS, Markets for negative emissions and voluntary markets

Main takeaways

- **Nordics should be clear on volume, quality and timeset goals.**
- **Work to get CDRs into ETS**
- **The state as market makers – like the EU buyers club.**

Summary of notes

- The cost of Bio-CCS is higher than fossil CCS. Negative emissions through bio CCS credits should be handled separate, with different volumes, prices etc.
- There should be a carrot to build local demand, e.g. offer tax credits for Nordic buyers of CDR.
- Nordics should be clear on volume, carbon quality and time set goals.
- Work to get CDRs into ETS.
- Nordic joint position towards EU. Nordic goals should work to create a Nordic common market to increase competition.
- To get CCS projects for fossil emitters there need to be state subsidies for CAPEX and OPEX.
- CDR is still viewed as “indulgence” and not really understood by companies.
- There should be tax benefits or focus on creating buyers.
- The state as market makers – like the EU buyers club. Highlight Nordic buyers.

De-risking mechanisms and liability concerns

Main takeaways

- **De-risking CCS projects is still difficult. Emitters hold too much risk. The state should take a larger role as risk carrier, insurer, or coordinator.**
- **Better alignment of volumes, schedules, and FIDs is necessary for project viability.**
- **Institutional investors need clearer incentives and reduced uncertainty to participate.**
- **Scalability and long-term vision must be built into projects and support schemes.**
- **EU-level insurance or risk-sharing systems could help mitigate cross-border risks.**

Summary of notes

- Uneven and unclear risk distribution: Emitters carry most risks (delays, penalties), even when problems arise in transport or storage. Liability rules differ between countries (e.g., Denmark vs Sweden), adding uncertainty.
- State involvement is essential for de-risking. Calls for the government to share risks, provide guarantees, insure specific risks, or temporarily co-own early projects.
- There is a need for funding in all steps of the value chain.
- Need to align timelines and FIDs across the value chain. Capture, transport, and storage schedules often don't match, causing delays and preventing FIDs. Danish support schemes and storage readiness are one example of misalignment.
- Financing gaps and absent institutional investors: Banks and large infrastructure investors remain largely uninvolved.
- Demand-side incentives missing: Funding tends to focus on emitters; more incentives are needed to stimulate demand for transport and storage services.
- Knowledge sharing required: Stakeholders want insights from early FIDs and guidance (white papers) on risk management, state guarantees, and preparing integrated projects.
- Need for a standardised risk-sharing model: Suggestions include developing a risk retribution mechanism standard to clarify who bears which risks in the value chain.
- Ensure that all level of the value chain is ready at the same time.
- Uncertainty of end market – Standard risk distribution mechanism or model.

Transport

CO₂ hubs

Main takeaways

- **The support systems must stimulate CO₂ hubs and transport, not only capture/storage.**
- **A clear support model, Nordic coordination, Nordic common funding and strategic planning.**
- **Predictability will make it more investable.**
- **Funding schemes should promote collaboration instead of competition. When companies are in competition they don't cooperate.**
- **CO₂ purity standards: Current standards (e.g., Northern Lights) are strict and costly.**

Summary of notes

- Transport gap in CCS support: Capture and storage receive backing, but transport and hubs lack equivalent support, making shippers unwilling to invest.
- CO₂ hubs as critical infrastructure: Could reduce political and permitting risks and stabilize long-term planning.
- Cross-border regional hubs: Different Nordic countries face different conditions. Common Nordic funding could promote shared hubs.
- Strategic planning: Need clarity on Northern European CO₂ volumes, key risks, and a Nordic infrastructure strategy; much of the future backbone is already known.
- CO₂ purity standards: Current standards (e.g., Northern Lights) are strict and costly. Need transparency on purification costs.
- Risk allocation: Tension between building quickly vs. optimizing long-term system. Need clarity on which risks are market vs. government responsibility.
- The big problem in the subsidy schemes is the competition because then the actors don't share. When they are in competition they can't talk with anybody else. Funding schemes should promote collaboration instead of hindering it.
- Predictability for the markets, coordination of goals and predictability of volume (How much do we need to store) will make it more investable => Long term plan.
- Regulation should also be predictable.
- Guidelines/policies/alignment on "good enough" quality on CO₂ for transport/storage.
- Plan for location of hubs.
- Also focus on short perspective, on how to get FID for phase one for smaller volume for hubs.

Storage

Facilitate matchmaking in the market

Main takeaways:

- **Knowledge sharing about the projects and timetables. The CCS Program could be the independent source for information.**
- **Mapping of actors across the Nordics and value chain.**
- **Clearly defined common goals and framework**

Summary of notes

- The Nordic Council of Ministers should be matchmaker at political level.
- Create a platform with well-structured information about the projects and timetables to matchmake the Nordic value chain
- The Nordic program should contribute with some realistic inside knowledge about all in the value chain. Transparency. Everybody should be able to see what the risks are. CCS Program should be the independent source for information.
- Learnings should be captured and shared. For example through neutral meetings like the kick off event.
- Map the Nordic potential: A complete overview of the strategic projects in the Nordic region.
- Guidelines/policies/alignment on “good enough” quality on CO₂ for transport/storage.
- Align subsidy schemes.
- Communicate the Nordic storage projects towards the Northern Europe continent through embassies to make the Nordic a CO₂ hub.
- Realistic timeline on storage sites.
- Align timelines – Pick the winners, nationally and regionally.
- Make a masterplan across the Nordics to create transparency.
- Make a program for Nordic State guarantees – Have state actors buying / reselling a storage portfolio.

The potential for storage by mineralization

Main takeaways:

- **Potential for CO₂ mineralization in the Nordic countries**
- **Regulatory requirements for CO₂ storage via mineralization**

Summary of notes

- Investigate the potential for CO₂ storage through mineralization in the Nordic countries
- Explore possible needs for regulatory changes regarding CO₂ storage through mineralization (e.g. different monitoring requirements).
- CO₂ utilization: Investigate the possibility of making e.g. construction materials from mineralized CO₂. Look into the sustainability angle.
- Different trapping mechanisms for CO₂ storage through mineralization. Rapid solubility trapping eliminating the risk of leakage. Mineralization within few years of injection ensuring permanent storage of the injected CO₂.

Ensuring safe pressure levels in storage sites

Main takeaways

- **Cross-border coordination and data sharing are preconditions for pressure management and for safe storage**
- **A database of geological data - Identifying limits to storage solution (pressure) and the neighbouring (geothermal) projects.**
- **Risk assessment: With border projects, who carries the responsibility regarding pressure?**
- **Pressure management in aquifers could benefit from shared Nordic frameworks**
- **Regarding old wells – There is a need for common ground.**

Summary of notes

- A useful outcome could be shared database of geological data - Identifying limits to storage solution (pressure) and the neighbouring (geothermal) projects.
- Add-on to consider: Make sure that both right, and the same data is collected, ex. water quality tests, and from the wells.
- States need to accept the “risk”.
- The Nordic Region should stand together towards the EU commission, that the evaluation (or regulation) and follow-ups are not necessary for storage permissions because they delay the process.
- There is a need for knowledge sharing which should lead to developing a “typical way” of doing it.
- Practical inter-state coordination between the Nordics is desired from an industry point-of-view instead of a more formal EU process.
- If a border project goes extremely bad, then who carries the liability, and who carries the responsibility of fixing it?
- Pressure management is constrained by multiple unknowns: legacy wells, unmapped fault systems, and other activities beyond the operator’s licensed area. How do we handle factors outside license boundaries?
- When two operators on adjacent licences share a common pressure issue, accountability is unclear. A clearer liability framework is needed for cross-license interference.
- CO₂ leakage risk and aquifer pressure impact are two distinct issues — regulators and operators should address them in separate conversations with separate tools and risk thresholds.
- MMV requirements should explicitly cover pressure interference and monitoring wells outside licensed areas — including who funds and operates them and what triggers reporting obligations.
- Migration of CO₂ plumes is slow — monitoring programmes must account for effects that may not be visible for many years, requiring long-term institutional continuity even after site handback to the state.
- A shared Nordic offshore database — covering data across national territories — would reduce blind spots and support better pressure modelling, including practical steps like standardised water purity testing.

Utilisation

The role of Utilisation (CCU) in the rest of the value chain

Main takeaways

- **Not an either/or between CCU and CCS: CCU is needed and should be supported now, not delayed for a decade. It contributes to both climate targets and energy resilience.**
- **System perspective required: Policy measures at national and EU levels are not well targeted at CCU. Broader system benefits (resilience, stable electricity, reduced dependency) should be included when designing support schemes.**
- **Industry should offer clearer strategies: Policymakers need industry input on pathways, system impacts, and opportunity costs (energy use, climate benefits, resilience). A broader analysis or report could help guide political decisions.**
- **Electricity price implications need managing: More CCU may raise electricity prices in some regions; public acceptance will need careful handling, though this effect varies geographically.**

Summary of notes

- CCU as a circular solution and energy storage option: CCU can turn CO₂ into an asset (e-fuels, chemicals, energy carriers), offering circularity and system flexibility. It also supports resilience, especially in a Nordic context tied to hydrogen, e-SAF, and ammonia.
- High costs and unclear long-term business case: CCU requires large energy inputs and significant investment. Funding and stable demand are essential, but current regulations, counting rules, and long-term visibility are insufficient to make CCU competitive.
- Developing a CCS and CCU project needs different specifications complicating the integration: CCU and CCS often need different CO₂ specifications, raising questions about whether they can share the same value chain. Encouraging emitters to pursue both CCS and CCU is seen as positive but technically challenging.
- Perception challenges and communication gaps: CCS is sometimes viewed as prolonging fossil use; CCU has communication challenges because climate benefits are harder to quantify. Transparency, stakeholder dialogue, and sharing Nordic experiences are needed.
- Geopolitics, resilience, and energy system impacts: Political risks remain. CCU can support energy independence and resilience, especially amid geopolitical uncertainty. Electricity price impacts differ across regions (e.g., Finland vs Sweden).
- Map the Nordic potentials.
- Need for shared learning and a longer project perspective: Longer-duration CCU projects strengthen stakeholder acceptance. More transparency and knowledge exchange across the Nordic region is needed.

Public

Public perception and engagement

Main Takeaways

- **Communication about CO₂ and CCS is important: The ministry and state need to be more vocal about answering questions also about the local value. Everybody needs to stand together, also NGO's and universities.**
- **Shared narratives and knowledge sharing of best practices.**
- **Strong interest in a Nordic CCS public engagement playbook, including lessons from successful projects. Integrate CCS into school curricula and science communication platforms.**
- **Project owners need to be prepared, directly with door-to-door engagement when construction approaches.**
- **The program could make an information package. Not only for the public but also journalists locally.**

Summary of notes

- Need for clearer, honest communication about CO₂ and CCS: The public often lacks basic understanding of what CO₂ is and why CCS is needed. CCS must be explained honestly as dealing with a *waste product*, while also highlighting community benefits.
- Growing communication risks, especially on social media: Toxic reactions online create new challenges. Project owners increasingly step back from social media and rely more on direct, local engagement.
- The companies feel they stand alone. The ministry and state needs to be more vocal about answering questions. All need to stand together, also NGO's and universities.
- Different national narratives shape acceptance: Sweden frames CCS as climate-driven; Norway faces little storage skepticism (linked to O&G familiarity), though concerns over public spending remain. Nordic countries share values that help establish common communication grounds.
- People want to know “what's in it for me”, and the local value.
- Need for structured knowledge sharing and best practices: Strong interest in a Nordic CCS public-engagement playbook, including lessons from successful projects. Also a call to integrate CCS into school curricula and science communication platforms (e.g., museums).
- Early engagement isn't enough—critical moments matter: Even with early outreach, public concern spikes close to project start. Project owners need prepared, direct, door-to-door engagement when construction approaches.
- CCS faces unique public criticism compared to other infrastructure: Issues such as accusations of greenwashing, environmental concerns, and use of public funds differ from traditional infrastructure like highways. Lessons from wind or other sectors only partially apply.

- Role of CCU and alternative storage in public understanding: Showing how CO₂ can be transformed into long-lasting products may help reduce public barriers and increase understanding of both CCS and CCU.
- Tailored messaging is essential: The communication style must match the audience. Educate without lecturing, be accessible, and adapt to local contexts.
- The program could make an information package. Not only for the public but also journalists locally.