Benefit Realisation and

Knowledge Sharing Report

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Assessment of results achieved related to the Governments effect-oriented goals during the Establishment Period

Northern Lights Joint Venture

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1. Introduction

As stated in the State Support Agreement, the recipient shall *"prepare a summary report describing the actions taken and the results achieved in relation to the Government's effect-oriented objectives during the establishment period."*

This report assesses the results achieved in relation to the Government's effect-oriented goals during the Establishment Period. The goals describe how Northern Lights contributes to the development of carbon capture and storage (CCS) in a cost-effective manner that supports long-term climate targets in Norway and the European Union. The model identifies four key areas of impact:

1. **Demonstrating feasibility and safety** by showcasing that CCS is both feasible and safe, and that the project increases the availability and attractiveness of CCS solutions, thereby building confidence among current and future users.
2. **Reducing future CCS costs** by contributing to cost reductions in subsequent CCS projects through learning-curve effects, optimised solutions, economies of scale, supplier development, and overall risk reduction.
3. **Supporting effective regulation and incentives** by providing valuable insights into how authorities can regulate and incentivise CCS activities, including lessons learned from public–private cooperation models and regulatory processes.
4. **Enabling new industrial opportunities** by creating space for new CCS-related solutions and supporting business development among suppliers.

In addition to these four goals, the model recognises **broader effects**, including the climate value of avoided CO_2 emissions.

This report outlines the assessed results achieved within each category during the establishment period from 2021 to 2025, in addition to a summary of the activities and actions taken during the Establishment Period.

2. Executive summary

Northern Lights is the world's first open-access, cross-border CO_2 transport and storage service. During the establishment period, the project moved CCS from concept to operation. Phase 1 facilities were completed and commissioned, and in 2025 Northern Lights executed the first CO_2 injection into the Aurora reservoir, providing clear, operational proof that CCS is safe, feasible and replicable at industrial scale. Building on this, the partnership took a Final Investment Decision for Phase 2, expanding capacity from 1.5 Mtpa to more than 5 Mtpa by leveraging existing infrastructure and accelerating availability for European emitters.

Northern Lights also delivered the first-of-its-kind dedicated and flexible CO_2 shipping fleet established scalable, repeatable logistics for cross-border transport and lowered barriers for new customers.

These milestones underpin a clear market-opening effect. Predictable transport and storage capacity enabled investment decisions for early movers in the Netherlands (Yara), Denmark (Ørsted) and Sweden (Stockholm Exergi), and underpinned the Phase 2 expansion.

On demonstrating feasibility and safety, expectations has been exceeded by commissioning the full chain, commencing safe operations and hosting nearly 15,000 visitors, establishing a global reference site for authorities, industry and media. On cost reduction, Phase 1 generated actionable learning that contributed to the Phase 2 decision and laid the basis for future cost-outs through scale and standardisation. On regulation and incentives, Northern Lights became a practical reference point through on-site engagement, a complete permitting pathway and EU-level PMI recognition. On new industrial opportunities, predictable capacity, firm contracts, operational proof and a dedicated fleet catalysed supplier markets and enabled cross-border investment decisions.

At the same time, the CCS market remains policy-driven and formative. Early projects have required blended packages combining EU instruments, national support schemes, company investments and, for removals, voluntary credits. Northern Lights' tariff forms only one part of the total cost stack, and scaling the next wave will depend on a predictable EU-ETS, strong national mechanisms, cost and scale optimisation, and coordinated timelines across capture–

shipping–storage. Northern Lights' role is to de-risk transport and storage and provide operational certainty, while broader market uptake will be shaped by the wider funding and policy environment.

In sum, Northern Lights is the world's first commercial, open-access, cross-border CO_2 transport and storage service, delivering operational proof, enabling cross-border investment decisions, scaling capacity to more than 5 Mtpa, establishing credible carbon accounting, mobilising logistics and suppliers, and securing EU policy recognition. Together, these achievements anchor Europe's emerging carbon-management ecosystem and pave the way for broader market deployment.

3. Assessment of results

Demonstrating feasibility and safety

As the world's first open-access, cross-border CO_2 transport and storage infrastructure, Northern Lights has delivered unprecedented operational evidence that CCS is both feasible and safe. With facilities completed, ships commissioned, and the first CO_2 offloading and injection successfully executed, the project has moved from first-of-its-kind demonstration to industrial practice. This has established a robust operational baseline for safe, scalable, cross-border CO_2 handling and storage, providing authorities and industry with practical assurance that CCS can be deployed at scale.

Throughout the establishment period, nearly 15,000 visitors travelled to the Øygarden CO_2 terminal, including industry leaders, policymakers, regulators, international delegations and media, underscoring Northern Lights' role as a global reference point for CCS knowledge sharing. Their sustained interest demonstrates how the project has transformed CCS from a

theoretical concept into a functioning industrial service. Feedback from these visits consistently highlights the value of seeing a real, integrated CCS infrastructure in operation:

"Finally a real example of CCS facilities."
"The visit had a significant impact on our view of CCS. Seeing the project in operation and learning about the technology and safety measures firsthand made us realize how practical and essential CCS can be for achieving climate goals. It also helped us better understand the challenges and opportunities involved in large-scale implementation."
"The visit enabled our group to physically see the success of co investment between industry and government in realizing a complex decarbonisation goal. The visit created a measure of comfort towards ccs tech through a real world demonstration of it in practice."
"The visit has allowed our colleagues to have a better understanding of how a ccs plant looks like and the challenges faced with such operations. It was good to see the plant in activity."
“The visit had a significant impact on our view of CCS. Seeing the project in operation and learning about the technology and safety measures firsthand made us realize how practical and essential CCS can be for achieving climate goals. It also helped us better understand the challenges and opportunities involved in large-scale implementation.”
“The team found both the presentation and the site tour highly engaging and informative. The content provided valuable insights into the current business model and highlighted the significant potential of Carbon Capture and Storage in the market. The session effectively demonstrated the strategic relevance of CCS and its role in shaping future opportunities.”

These reactions reflect a pattern observed across Europe and beyond: once stakeholders experience Northern Lights firsthand, confidence in CCS increases, and policy discourse shifts from whether CCS is needed, to how quickly storage capacity can scale. This evolution aligns with broader trends in 2024–2025, where high-level EU officials and national policymakers explicitly recognised the Longship–Northern Lights model as instrumental in accelerating CCS

deployment. As an example, at the Northern Lights–Yara CCS event in Sluiskil in March 2025, the European Commission emphasised Norway's enabling role in shifting the EU's perspective toward large-scale CCS implementation. This growing momentum is also visible in countries that had previously opposed CCS, notably Germany, which approved CO_2 storage at the federal level in 2025.

The project's global impact has extended far beyond Europe. Delegations from Japan, Australia, and several others, have sought direct insight into Northern Lights' operations, often during key regulatory or policy processes in their home countries. International maritime transport collaboration has further reinforced this role, including the Northern Phoenix's 2025 knowledge-sharing visit to Tokyo, where the ship demonstrated how Northern Lights' operational experience is informing emerging CCS value chains in Asia.

"*Safe every day, everywhere*" remains Northern Lights' core safety principle, underpinning all activities at the Øygarden terminal. Safety is fully embedded in the visitor programme, with transparent explanations of CO_2-related risks, how they differ from hydrocarbons, and how these are managed through engineering controls and operational procedures. This approach also strengthens local community confidence, demonstrating that CO_2 reception and handling can be conducted safely within a local context.

A defining milestone came in August 2025, when Northern Lights successfully commenced the world's first commercial CO_2 transport and storage operations, marking the transition from construction to real-time industrial service. The first injection drew significant international attention and provided concrete evidence that CO_2 can be safely transported, offloaded and stored in a geological reservoir. This milestone also countered scepticism about CCS functionality, shifting critical stakeholders from questioning feasibility of the technology.

Northern Lights' role in demonstrating feasibility and safety has been amplified by proactive, strategic media engagement. International outlets have documented the commissioning of the dedicated CO_2 carrier fleet, the world's first purpose-built, large-scale CO_2 shipping fleet, as well as the operational start-up and broader Longship achievement. This visibility strengthened public understanding and contributed to a more informed debate on CCS in multiple countries.

As the visitor programme has matured, it has become one of the world's most important arenas for CCS knowledge exchange, building political support and strengthening international collaboration. Looking ahead, Northern Lights will continue to prioritise demonstration of safe operations, particularly as new commercial customers begin delivering CO_2 in 2026. While operational needs during expansion may temporarily limit physical visits, a newly developed virtual visitor experience can ensure continued global access to transparent, concrete and accurate CCS knowledge.

Reducing future CCS costs

As a first-of-its-kind CCS service, Northern Lights has moved from demonstration to operation, establishing the basis for cost reduction through learning effects, standardisation and scale. Phase 1 was delivered on time and within budget, and the value chain is now operational. The investment decision for Phase 2 increases capacity to more than 5 Mtpa, leveraging existing infrastructure to offer increased capacity to the market.

During the establishment period, macroeconomic conditions such as energy prices, inflation and exchange rates affected the cost environment. Despite this, Phase 1 was completed and ready to receive CO_2, and the project's targeted efficiencies, notably fewer wells enabled by subsurface optimisation, demonstrate how experience-based improvements can materially reduce cost in a challenging market.

Northern Lights was designed and executed before CCS-specific standards were established, and Phase 1 accordingly applied oil and gas frameworks with the priority of proving technical feasibility and safe operations. With facilities completed and operations underway in 2025, the project has generated practical insights to reduce costs in future developments. This includes improvements in drilling and subsurface optimisation, enabling savings of 750 MNOK and supporting the Phase 2 investment decision. Phase 2 was designed in close sequence to Phase 1, leveraging existing infrastructure. This incremental approach accelerates market

availability and increases storage capacity, but limits the ability to fully realise potential cost reductions, as key concepts and interfaces have already been defined. Cost-out opportunites is expected going forward, as replication allows earlier design choices to be reconsidered, standardisation to deepen, and alternative concepts to be deployed at scale. Going forward, priorities on cost reduction will include:

- Maximise scale effects to lower unit cost.
- Utilise existing assets such as infrastructure, ships and operational systems more efficiently.
- Drive synergies and replication across the value chain such as standardised designs and ship-shore interfaces and avoid “reinventing the wheel”.
- Evaluate alternative concepts and technologies at an early stage to enable step-change reductions in both CAPEX and OPEX.

Supporting effective regulation and incentives

Northern Lights has become a practical reference point for regulators developing the policies, incentives and cross-border rules needed to scale CCS in Europe. Through extensive engagement with authorities, operational transparency at the Øygarden facility and as a EU Project of Mutual Interest, Northern Lights has provided the real-world evidence needed to shape fit-for-purpose CCS regulation at national and European levels.

Northern Lights has played an active role in shaping the regulatory landscape for CCS by providing direct, operational insight to authorities and policymakers. The Øygarden CO_2 receiving terminal has served as a central platform for on-site knowledge sharing, hosting nearly 15,000 visitors during the establishment period, of which approximately 16 percent were authorities or regulators. These visits allowed stakeholders to observe real-world CCS operations and gain practical understanding of topics such as financial security, risk allocation, insurance frameworks and cross-border CO_2 transport.

Engagement has taken place at all levels, from heads of government to technical regulators. High-level dialogue included a December 2024 visit to Øygarden by UK Prime Minister Keir Starmer and Norwegian Prime Minister Jonas Gahr Støre, where they discussed CCS cooperation and signed a strategic partnership agreement in connection with the UK government's £21.7 billion CCS funding commitment. At the technical level, Northern Lights hosted delegations from bodies such as the European Surveillance Authority (ESA) and the Norwegian Environment Agency, enabling regulators to examine operational processes and permitting requirements in detail. In May 2025, Northern Lights received confirmation that all national permits required for CO_2 injection and storage were approved, enabling operational start-up. The permit granted authorisation for the injection and storage of 37.5 million tonnes of CO_2 over 25 years, covering the full scope of Phase 1 operations. These approvals provided other countries with a concrete regulatory reference for safe and compliant geological storage.

As Northern Lights brings its first cross-border (Phase 2, commercial) customers from the Netherlands (Yara) and Denmark (Ørsted) into operation, the project has engaged closely with the competent authorities and regulators in both countries and in Norway to secure the necessary permits and consents. For many of these agencies, this is the first time processing permits for ship-based cross-border CO_2 transport and offshore storage, which has required detailed bilateral dialogue on procedures and execution. This "first-of-its-kind" nature means processes can take longer. However, the permitting pathway established may provide a practical reference for subsequent cases and helps reduce uncertainty for future customers and CCS-players.

Northern Lights' contribution to regulatory development is also reflected in key EU recognition milestones. The project has been designated a Project of Mutual Interest (PMI) by the European Commission, acknowledging Northern Lights' central role in enabling cross-border CO_2 infrastructure and granting access to accelerated permitting and CEF Energy funding instruments. This signals European confidence in Northern Lights' ability to enable industrial decarbonisation beyond Norway's borders and confirms its strategic role in supporting the EU's 2030 climate objectives.

Northern Lights has also contributed insight to regulators in countries considering CCS adoption for the first time. Experience shows that early-stage jurisdictions seek strategic perspectives on how CCS value chains are established, while more advanced jurisdictions seek detailed information on for instance risk management, financial security mechanisms and monitoring frameworks. As the world's first commercial, open-access CO_2 transport and storage service in operation, Northern Lights is uniquely positioned to support both.

Knowledge sharing on regulation and incentives also extends beyond site visits. Northern Lights participates actively in industry organisations and in dialogue with NGOs, including Zero Emissions Platform (ZEP), Offshore Norway, and Bellona, contributing practical insight from the Longship project to ongoing regulatory and policy processes at both national and EU level.

can be credibly monitored across the full value chain using Northern Lights' MRV and digital MRV systems. This development supports robust certification and accounting systems going

These activities demonstrate that Northern Lights has become a trusted, evidence-based resource for regulators shaping CCS policy. The DNV report *"Status for gevinstrealisering av Langskip"* from 2025 further confirmed that regulatory frameworks across Europe have matured significantly in recent years and that the Longship value chain, including Northern Lights, has played a material role in this development.

Enabling new industrial opportunities

Throughout the establishment period, Northern Lights has played a pivotal role in maturing the commercial foundation for CCS in Europe. As the world's first open-access, cross-border CO_2 transport and storage service, Northern Lights has created a viable route-to-storage for early industrial movers across Northern and Western Europe. By bringing predictable capacity to market, signing firm cross-border agreements and enabling a stepwise expansion to more than 5 million Mpta, Northern Lights has reduced risk, accelerated customer decisions and established a practical reference model for Europe's emerging climate infrastructure. The commissioning of the value chain, the issuance of the first CO_2 storage certificates and the build-out of the dedicated CO_2 shipping fleet demonstrate that the core market mechanism of contracts, logistics and credible carbon accounting are in place.

Building on Phase 1 delivery and enabled by the commercial agreement with Stockholm Exergi for 900,000 tonnes of biogenic CO_2 annually, the project has demonstrated that when predictable transport and storage services are available, demand materialises. This was a prerequisite for the Phase 2 investment decision, expanding capacity from 1.5 Mtpa to more than 5 Mtpa, signalling to the European market that CO_2 storage can be offered.

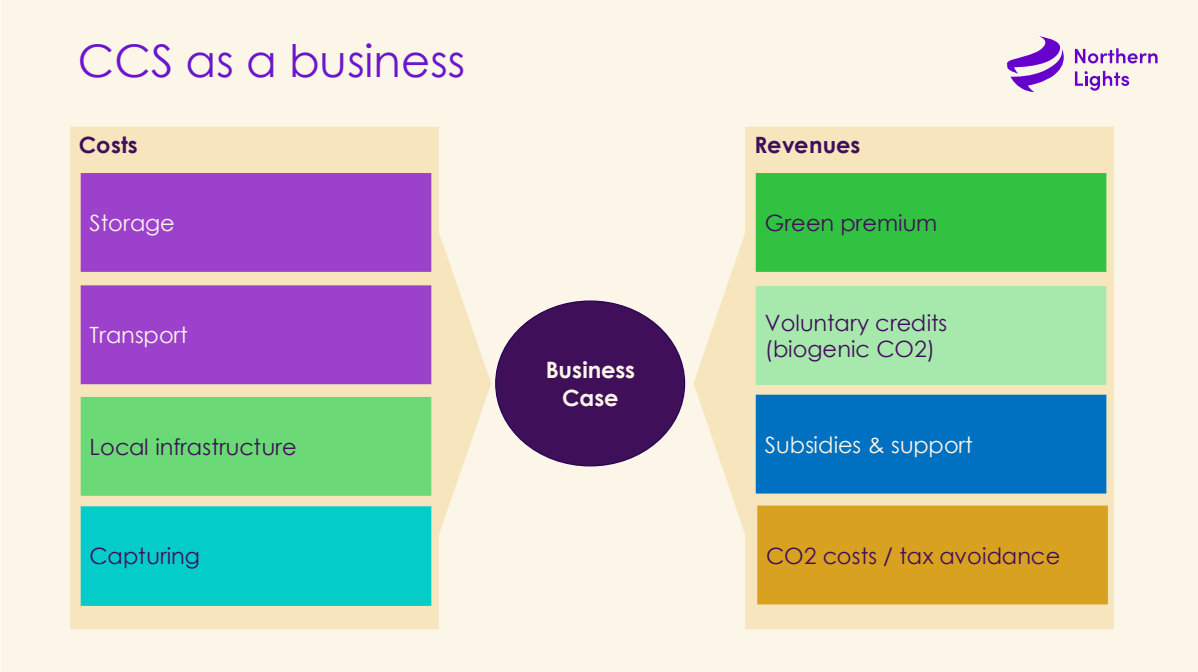
Firm transport and storage commitments have been decisive for Yara (Netherlands), Ørsted (Denmark) and Stockholm Exergi (Sweden) in reaching their investment decisions. These commercial agreements, combined with Northern Lights' operational readiness, are precisely the conditions governments and industry identified as necessary to unlock early projects and reduce risk for subsequent entrants. DNV's 2025 assessment of Longship further underlines

that third-party access to predictable transport and storage infrastructure is a central mechanism for scaling CCS markets.

Market formation depends on the full value chain. Successful early CCS projects during the establishment period have relied on combinations of EU funding, national support schemes, voluntary credits and company investments, with Northern Lights' transport and storage tariff representing only one component of the overall cost stack. By offering a predictable, open-access service with standardised interfaces, Northern Lights reduces risk on the transportation and storage side, while overall project uptake is shaped by broader policy signals, support frameworks and capture-side economics beyond the company's control.

Since 2019, the geography and sector distribution of emissions targeted for early CCS deployment has shifted, and capture projects are now being realised in Norway, the UK, the Netherlands, Denmark and Sweden, where viable packages combining EU support, national schemes and credible transport and storage capacity have come together. Unlocking the next wave of projects will depend on: (i) a predictable EU-ETS; (ii) strong national support schemes; (iii) cost and scale optimisation across the chain; and (iv) coordination of timelines between capture, shipping and storage. Northern Lights contributes directly to (iii) and (iv) by providing a ready, scalable transportation and storage service and the operational certainty needed for governments and emitters to move forward.

CCS scales when the cost of capturing, transporting and storing CO_2 is matched by the value available to customers. Affordability remains the key challenge for many first-of-a-kind projects. Key to scale the market, is to create an affordable service and business modell that unlock revenues and allocates and mitigates risks in a good way.



Costs: *Across the value chain, transport and storage typically account for around one-third of total costs, with capture and local infrastructure representing the majority. Competitiveness improves through early concept selection, efficient execution and operations, and economies of scale, for example when multiple emitters share infrastructure and vessels.*

Revenues: *For compliance-driven decarbonisation in hard-to-abate sectors, the business case is anchored in avoided EU-ETS costs, supplemented by EU/national funding and, in some cases, a green premium. In today's market, full value-chain CCS costs often exceed ETS price levels, creating a funding gap that policy instruments must bridge. Carbon removals (biogenic CO_2 / BECCS) projects generate negative emissions and can sell voluntary removal credits, often at values above 200 €/t. Customers such as Ørsted and Stockholm Exergi use this model, with voluntary credits complemented by national tenders.*

Other factors: *Risk allocation is also important in the context of business cases, as first-time projects must manage cross-chain risks across capture, terminal operations, transport, storage, credit buyers and financiers. Bankable structures require clear allocation of obligations, credible back-to-back contracts and MRV-based certification to monetise stored CO_2. Northern Lights reduces risk on the transport and storage side by providing predictable capacity, standardised interfaces and operational proof points.*

While Northern Lights has established the commercial and operational foundations for a functioning CCS market, the speed of wider market scaling will continue to depend on broader policy frameworks, support mechanisms and customer readiness across Europe.

In addition to supporting new industrial opportunities in the wider market, Northern Lights has generated valuable learnings for its owners. These learnings reinforce the project's contribution to building a robust CCS industry by strengthening competence across design, monitoring, operations and commercial integration. Participation in Northern Lights has strengthened owners' CCS capabilities across shipping design, CO_2 specification management, monitoring strategies and technical-commercial integration. Equinor highlights that the established Northern Lights value chain provides directly transferable learning for maturing and scaling future CCS projects. Teams frequently use the Øygarden facilities for internal and partner knowledge sharing, and Northern Lights Technical Service Provider experience has contributed to early-phase development of the Smeaheia Norwegian Hub. Shell underlines that Northern Lights is an integral part of its customer offering, embedding learnings from the first large-scale CO_2 carriers, CO_2 specification work, integrated monitoring planning and technical-commercial integration.

Broader effects

Northern Lights has helped shift CCS from a linear value chain into an ecosystem, attracting new actors, enabling new business models and creating verifiable climate value through operational proof, digital trust and European-level recognition.

The commercial value of CCS continues to be shaped by the cost of emissions, but the establishment period has shown that viable business cases increasingly depend on blended revenue structures combining EU and national support mechanisms, voluntary carbon credit frameworks and early green-premium markets. Alongside these developments, the growing involvement of non-state actors, such as technology companies and financial institutions, has widened the CCS landscape and accelerated demand for high-integrity climate outcomes.

For many technology-driven companies, the primary motivation lies in meeting ambitious decarbonisation commitments, often dominated by Scope 3 emissions. In this context, CCS becomes less about reducing operational emissions and more about accessing credible, durable carbon-removal solutions. This elevates the importance of robust Measurment, Reporting, Verification (MRV) systems such that climate outcomes can be reliably measured and digitally recorded across the full value chain. This accounting contributes to transforming physical storage into commercial value, particularly for voluntary carbon markets.

The voluntary market has also brought new categories of actors into the CCS ecosystem, such as technology companies pursuing value-chain reductions, investors exploring long-term removal portfolios and intermediaries building commercial interfaces for certificates, logistics, and financing. Their participation reflects a broader shift: CCS is no longer seen as a single industrial service, but as a platform enabling multiple climate-related services, each dependent on reliable infrastructure, transparent accounting and scalable logistics.

Traditionally, CCS has been described as a value chain, from capture, to transport, to storage. However, the establishment period has revealed a more complex reality. With the commissioning of Phase 1, the first injection in 2025, the emergence of the dedicated CO_2 shipping fleet, and the Phase 2 expansion to more than 5 Mtpa, multiple interdependent actors

now rely on Northern Lights' operational readiness. At the same time, the European Commission's designation of Northern Lights as a Project of Mutual Interest (PMI) underlines the project's role in enabling cross-border climate infrastructure and supporting ecosystem growth. As these elements have matured, aligning incentives, timelines and commercial expectations has become increasingly important. The involvement of disparate players such as capture developers, shipowners, terminal operators, storage providers, credit buyers, insurers and lenders means that CCS cannot be managed as a simple chain of bilateral transactions. Instead, it functions as a CCS ecosystem, where value, risk and responsibility are distributed across multiple actors, each contributing to the integrity and scalability of the system underlining why coordination to further scale the CCS market is key.

4.Summary of activities and actions taken in the Establishment Period

Visits

From the start of construction in 2021 to the end of 2025, Northern Lights' visitor activity in Øygarden has expanded from small-scale site visits to becoming one of the world's most important arenas for CCS knowledge exchange. The growth in visitor numbers reflects both the increasing maturity of the CCS industry and Northern Lights' role as a global reference project.

In 2021, Erna Solberg marked the first sod roof, with the project office and visitor centre scheduled for completion in autumn 2022. Despite the limited facilities, interest from external stakeholders was already high. A total of 366 people visited the construction site during the year, signalling an early interest from industry, policymakers and media to follow the development of the world's first cross-border CO_2 transport and storage infrastructure.

2022 marked a turning point with the official opening of the Øygarden visitor centre in October, inaugurated by Norwegian Prime Minister Jonas Gahr Støre. Throughout the year, Northern Lights welcomed well over 2,000 visitors from 18 countries, representing policymakers, industry players, academia, civil society and media.

The visitor centre quickly became a focal point for CCS engagement, and the year brought a noticeable shift in public and political conversations on CCS across Europe and globally. International media outlets visited Øygarden to document progress and explain CCS to broader audiences.

In 2023, visitor activity nearly doubled. Northern Lights hosted 270 visits and 3,778 visitors from 54 countries, including authorities, media, industry delegations and academic institutions. The visitor centre strengthened its position as an educational hub, offering structured introductions to the Northern Lights value chain and guided technical tours of the facilities.

Media interest intensified, particularly from France, Germany and the UK, driven by growing political momentum for CCS. Northern Lights conducted weekly interviews with national and international outlets, contributing to public understanding and acceptance of CCS.

2024 was another year of significant growth. Northern Lights welcomed 5,025 visitors in 306 groups—an increase of 33% in visits compared to 2023. In September, the project reached the milestone of 10,000 visitors since construction began in 2021, and by year-end had hosted 11,513 visitors from 70 countries.

To manage the growing international interest, Northern Lights hired in 2024 a full-time Visitor Liaison Coordinator and professionalised the visitor management system. A new web-based visit request form was launched to automate coordination, and a formal visitor policy was introduced to ensure consistency and high quality in the visitor experience.

In 2025, Northern Lights welcomed 3,218 visitors from more than 70 countries. During the year, the operational start-up of the facility required a more cautious approach to visitor management. We therefore deliberately limited the number of visits to match operational needs of the start-up.

Below is the total percentage distribution of visitors by group from 2021-2025. For figures specific to 2025, please refer to the Annual Benefit Realisation Report.

- Industry players: 41%
- Policy makers: 11%
- Academia: 10%
- Interest groups: 4%
- Media: 2%
- General public: 32%

Conferences and external engagement

As a first mover in developing a commercial market for CO_2 transport and storage, Northern Lights has a mandate to share knowledge and build awareness of CCS as a safe and cost-effective climate solution. Since 2021, the company has contributed to conferences, seminars and academic collaborations across Europe and beyond.

In 2021–2022, Northern Lights shared early project insights and contributed to research and exhibitions together with policymakers, industry and academia. In 2023, the company presented at around 45 conferences and hosted the annual Northern Lights Summit, as well as celebration of completing the receiving facilities, gathering key stakeholders to discuss the development of a commercial CCS market.

Activity increased significantly in 2024, with participation in 124 conferences, workshops and roundtables, with a focus on European engagements and efficient use of regional and virtual formats. In 2025, Northern Lights continued its strong external presence, presenting at 174 conferences and contributing to discussions on CCS deployment, policy frameworks and commercial pathways for CO_2 transport and storage.

This will continue to be at the core of our external activities, with our approach adjusted in line with market development and initatives that support further market scaling. Going forward, we

will take a more proactive role in organising and hosting events where Northern Lights act as the primary convener and sender.

Events

Northern Lights aim to share knowledge and engage in dialogue with key stakeholders who can contribute to further scaling of the CCS market. When organising events, we apply a structured approach to stakeholder mapping and target definition, ensuring that each activity is designed to deliver relevant knowledge and insights. Through this approach, we seek to build trust, credibility and long-term relationships, while contributing to the continued development of the market.

Media

Media relations is an important part of Northern Lights' knowledge sharing and public acceptance efforts. Offering interviews and fact-based insights, Northern Lights contributes to media stories with the goal of demonstrating progress and successes of the Longship project and further development of phase 2.

In 2025, Northern Lights achieved 480 media stories in national and international media. We experience great interest in CCS and Northern Lights by media across the world. There is particular interest from UK, Sweden, Denmark, Germany, Malaysia, Singapore and Japan media which is also reflected in the visitor numbers.

Digital media

Throughout the establishment period, Northern Lights has gradually developed its use of owned communication channels. The early phase focused on establishing a basic presence on social media to create awareness of the project and provide initial updates.

By the end of the establishment period, Northern Lights had built a strong presence on LinkedIn, with more than 25,000 followers, including significant growth during the later phase. The platform has become a key channel for sharing knowledge, supporting credibility and contributing to the scaling of the CCS market. In parallel, the company's website has been used

to publish project updates, press releases and reference material, further supporting transparent and accessible communication with stakeholders.

Memberships and support

Throughout the establishment period, Northern Lights has actively engaged with industry associations, interest groups and professional networks to support the development of CCS technology, policy and markets. Memberships span national, European and international organisations, covering industry collaboration, regulatory dialogue, policy development and market frameworks. Through these memberships, Northern Lights contributes to knowledge sharing, advocacy and standard-setting, while gaining insight into regulatory developments, market trends and stakeholder perspectives critical to scaling a commercial CCS market. Northern Lights' core memberships have remained largely consistent during the establishment period.

Offshore Norway

Northern Lights has throughout the establishment period been a member of Offshore Norway which is the employer and industry organisation for companies with activities on the Norwegian Continental Shelf, and part of the Confederation of Norwegian Enterprise (NHO). We were a contributor to establish a CCS Forum in the organisation which we are currently members of. The forum is a professional advisory body that addresses questions related to topics such as subsurface, financial security, offshore safety rules, as well as regulatory developments and policies within CCS in general.

Zero Emission Platform (ZEP)

Northern Lights has throughout the establishment period been a member of ZEP, the trusted advisor to the European Union on industrial carbon management and seeks to accelerate its deployment in line with Europe's climate ambition.

ZERO

The ZERO Environmental Foundation is an independent, non-profit organisation with one mission: the climate issue. ZERO applies a knowledge-based and analytical approach to driving forward zero-emission solutions. Northern Lights has collaborated with ZERO throughout the establishment period.

French-Norwegian Chamber of Commerce

Northern Lights has for several years been a member of the French-Norwegian Chamber of Commerce who has the task of promoting economic, commercial and industrial relations between Norway and France, as well as bilateral cooperation between the two countries. The French-Norwegian Chamber of Commerce is an intermediary between French and Norwegian companies and is considered purposeful for business strategic objectives.

Norwegian-German Chamber of Commerce

Northern Lights has been increasingly active in events organised by the Norwegian-German Chamber of Commerce. They promote trade and economic cooperation between Norway and Germany by offering market entry support, legal/tax advice, networking, and events, focusing on sectors like energy. They are acting as a possible link for businesses entering the partner country's market.

ONS

Global energy exhibition and conference in Stavanger that brought together more than 70,000 visitors from 100 countries in 2024. Northern Lights was part of the Energy Society Committee and the CCUS Committee and contributed to shaping the programme of the 2024 conference. We will continue our engagement with ONS to prepare for the next conference in 2026.

Other industry associations, interest groups and professional networks we have engaged with during the establishment period includes Bellona, CCS Europe, Næringsforeningen Stavanger and Vest Næringsråd.

Research contribution

Between 2021 and 2025, Northern Lights JV (NLJV) established a comprehensive research cooperation and monitoring framework that underpins safe, commercial-scale CO_2 storage operations in the Aurora storage complex. Early work in 2021–2022 focused on building the scientific foundation for subsurface assurance, including development of the 4D seismic baseline, updated reservoir and caprock models, and drilling of key injection wells with extensive data acquisition to validate containment and pressure behaviour.

From 2023 onward, NLJV advanced into value-chain performance and monitoring system maturity. A full life-cycle assessment demonstrated a 97.4% net CO_2 abatement across the Northern Lights transport-to-storage chain, establishing a verified emissions baseline for operational phases. Concurrently, the consortium updated the liquid CO_2 specification to reflect state-of-the-art knowledge on impurity behaviour, corrosion risks, materials integrity, and safe operability—broadening eligibility for new industrial emitters. Containment risk assessments and dynamic seismic monitoring workflows were refined to support operational surveillance.

In 2024–2025, NLJV expanded its research footprint through multi-year European collaborations. Key programmes included HNET Phase III–IV (DAS4HNET), advancing passive and distributed-acoustic-sensing seismic monitoring in the Horda platform; the HNAR permanent array with NORSAR, enhancing seismicity detection and public-risk insight; and CET Partnership projects such as CO2RR, RAMON CO, and SAFE-C, which strengthen risk-based monitoring, stress/fault reactivation understanding, and cross-border storage safety.

Peer-reviewed outputs from 2022 and onwards further validated these advancements.

Overall, NLJV's research contributions over the five-year period delivered: (i) a complete, high-resolution baseline for seismic and subsurface monitoring; (ii) a multi-layer operational

monitoring architecture integrating 4D seismic, passive arrays, and DAS technology; (iii) scientifically validated CO_2 specifications ensuring infrastructure integrity; (iv) a verified climate-performance model for the full value chain; and (v) European-scale research collaborations that strengthen regulatory readiness and accelerate CCS deployment. Together, these achievements materially de-risk long-term CO_2 storage and establish a replicable technical model for industrial carbon management.

Commercial development

Market development for commercial CCS changed significantly during the establishment period, with market scaling progressing more slowly than initially anticipated. These developments coexist with the operational and commercial progress achieved by Northern Lights; however, system-wide scaling depends on factors beyond transport and storage readiness. Early expectations were driven by hard-to-abate sectors such as cement, chemicals and steel, supported by rising EU ETS prices. Over time, geopolitical developments, energy security concerns and competitiveness challenges altered the market landscape and tempered this optimism.

The market remains in a formative phase and will develop at a pace determined by customer readiness, with commercial viability being essential for scaling. Commercial structures are still being established, and reaching agreement on the allocation of risk and returns across the value chain remains a time-consuming process.

Aligning timelines and processes across the CCS value chain has proven critical to reducing the risk of misalignment between emitters and storage providers and addressing the commonly cited “chicken-and-egg” challenge. Multi-emitter hubs typically only progress when several emitters mature their projects in parallel. Such developments are characterised by high upfront investments and significant technical, commercial and stakeholder complexity, requiring a shared and early technical understanding across the value chain.

Support from the Innovation Fund has resulted in fewer final investment decisions in hard-to-abate sectors than initially anticipated, and additional national support schemes appear necessary for many emitters. However, commercial and regulatory factors remain equally critical, making it essential to assess the maturity of potential customers' projects across technical, commercial and regulatory dimensions.

The value of CCS is influenced by the cost of emissions, but business cases are increasingly strengthened through a combination of public support, carbon credits and green premiums. Early assumptions underestimated the role of non-state actors, such as technology companies, and towards the end of the establishment period the voluntary market has emerged as an important driver of CCS development.

For a storage provider, a robust and scalable Measurement, Reporting and Verification (MRV) system is essential to deliver credible digital storage certificates and convert physical storage services into commercial value, particularly for emitters participating in voluntary carbon markets or seeking green premiums.

The market remains highly policy-driven and sensitive to regulatory change, underscoring the need to work in parallel with multiple industrial emitters across different markets when pursuing transport and storage agreements. At the same time, offering technical solutions alone is not sufficient; a strong commercial mindset and proactive engagement with potential customers are essential to develop viable decarbonisation solutions and support investment decisions.

Way forward

Going forward, Northern Lights will continue to share knowledge and operational experience in line with its mandate under the Longship project and the support agreement with CINEA. Planned activities include Northern Lights Workshop Summits, virtual Øygarden site visits and knowledge sharing to inform and engage stakeholders across Europe and beyond.

In parallel, Northern Lights will participate in events organised by third-party organisations across the CCS ecosystem. The purpose is to inform stakeholders in Europe and beyond, and to engage with current and potential emitters, strengthening interest and progressing business relationships towards future commercial agreements. As regulatory frameworks for CCS continue to evolve both in Norway, in the EU and European markets, Northern Lights will engage with experience and knowledge sharing in shaping policies and standards that support a functional, transparent and scalable market.