
Northern
Lights

History and partnership construct

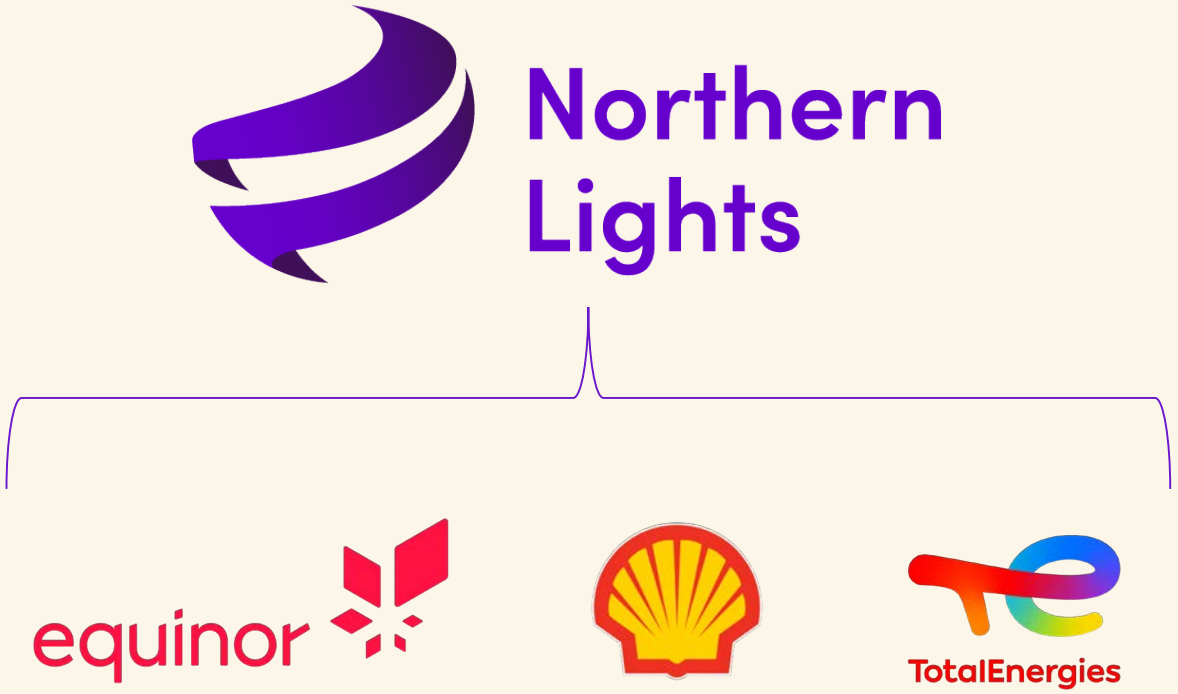
→2016: The idea of a full value chain CCS project in Norway was born. Norwegian Government played an active role

→2017: The formal co-operation with Equinor, Shell and TotalEnergies commenced

→2020: The Longship project was launched

→2021: Northern Lights JV DA was established

- NL JV is a Shared Liability (DA) company owned 1/3 each by Equinor, Shell and TotalEnergies
- Northern Lights JV DA is the operator of Norway's first CO_2 injection license (Aurora)

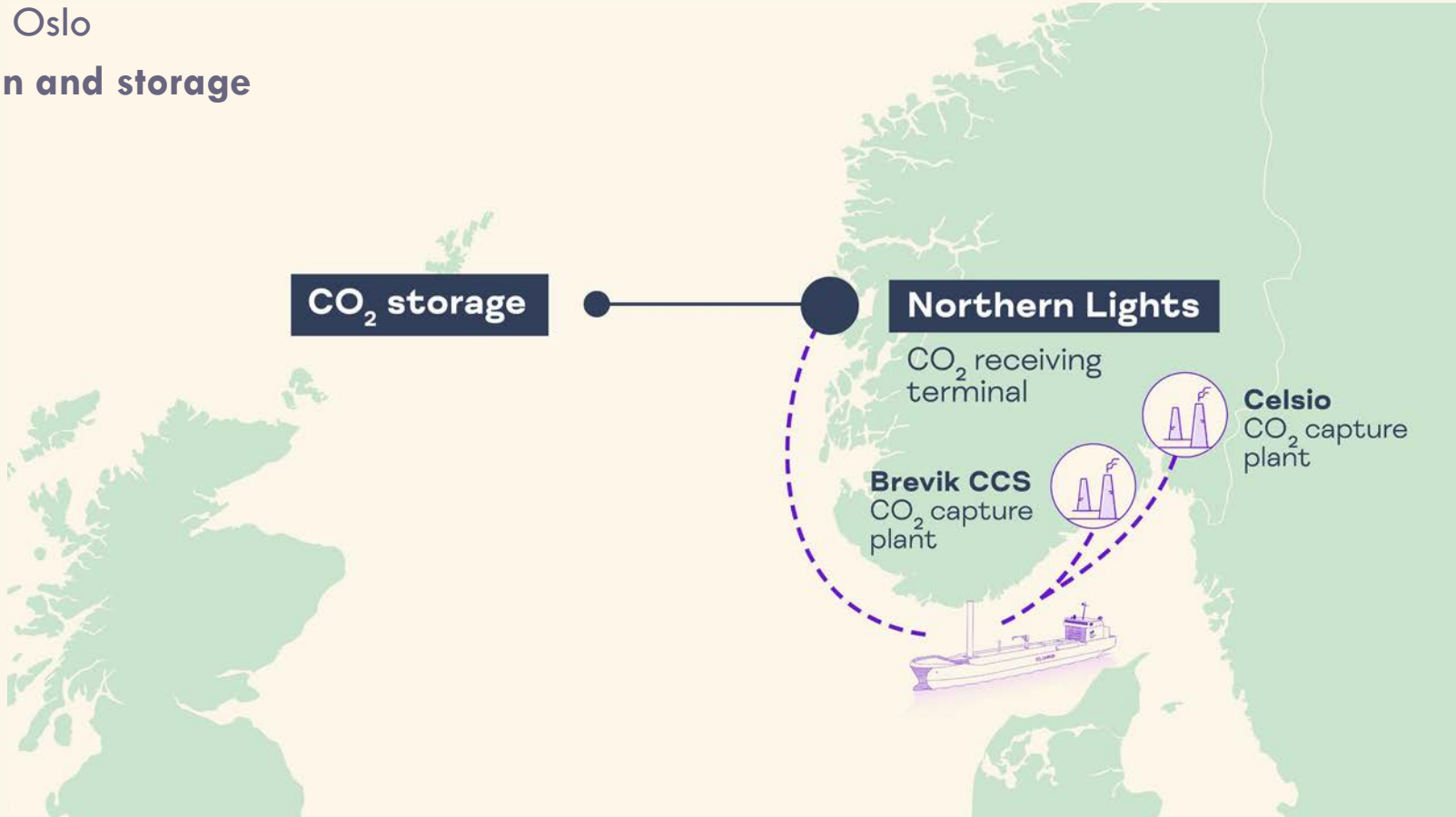


The "**Longship**" Project

→A demonstration of large-scale, end-to-end CCS value chain consisting of:

- Heidelberg **cement manufacturing** plant at Brevik
- Celsio **waste-to-energy** facility at Oslo
- Northern Lights **CO_2 transportation and storage**

→Norwegian Government is co-financing Northern Lights Phase 1 with a capacity of 1.5 million tons of CO_2 per year



LONGSHIP

NORTHERN LIGHTS SCOPE

CO_2 capture

Capture from industrial plants. Liquefaction and temporary storage.

Transport

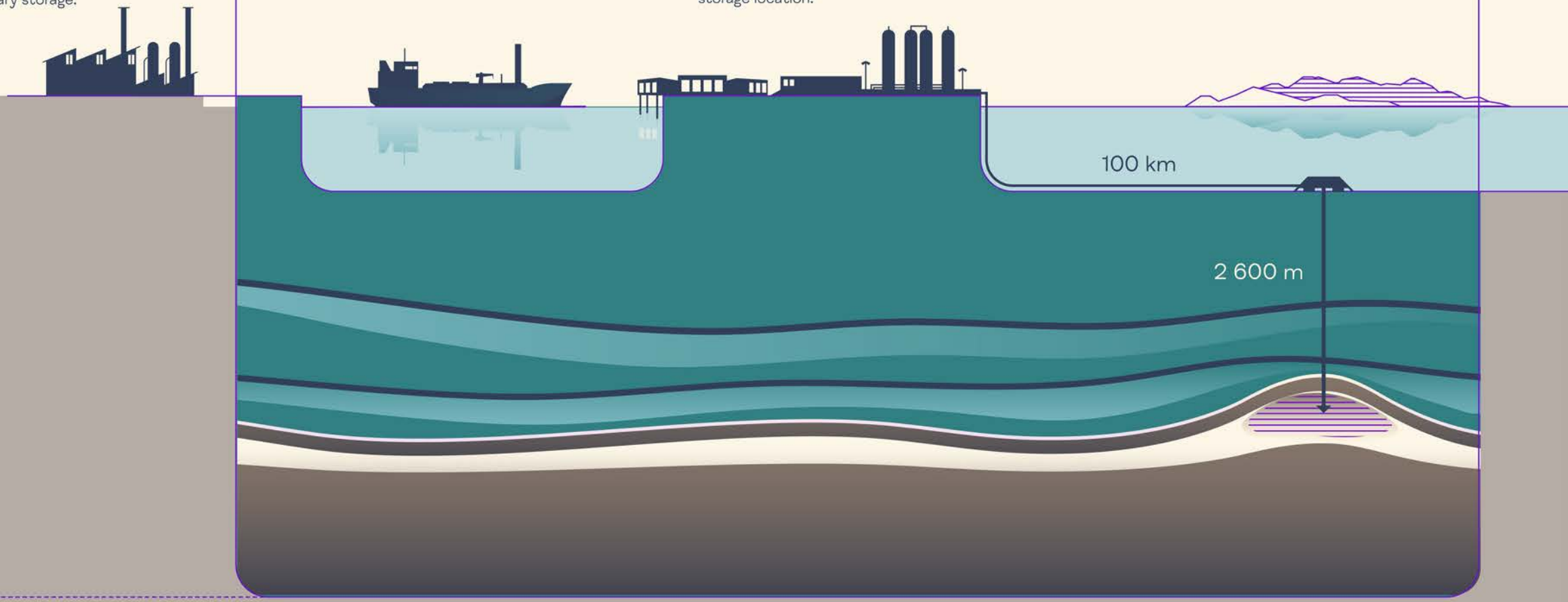
Liquid CO_2 transported by ship.

Receiving terminal

Intermediate onshore storage. Pipeline transport to offshore storage location.

Permanent storage

CO_2 is injected into a saline aquifer.



Last year was a significant year for CCS:

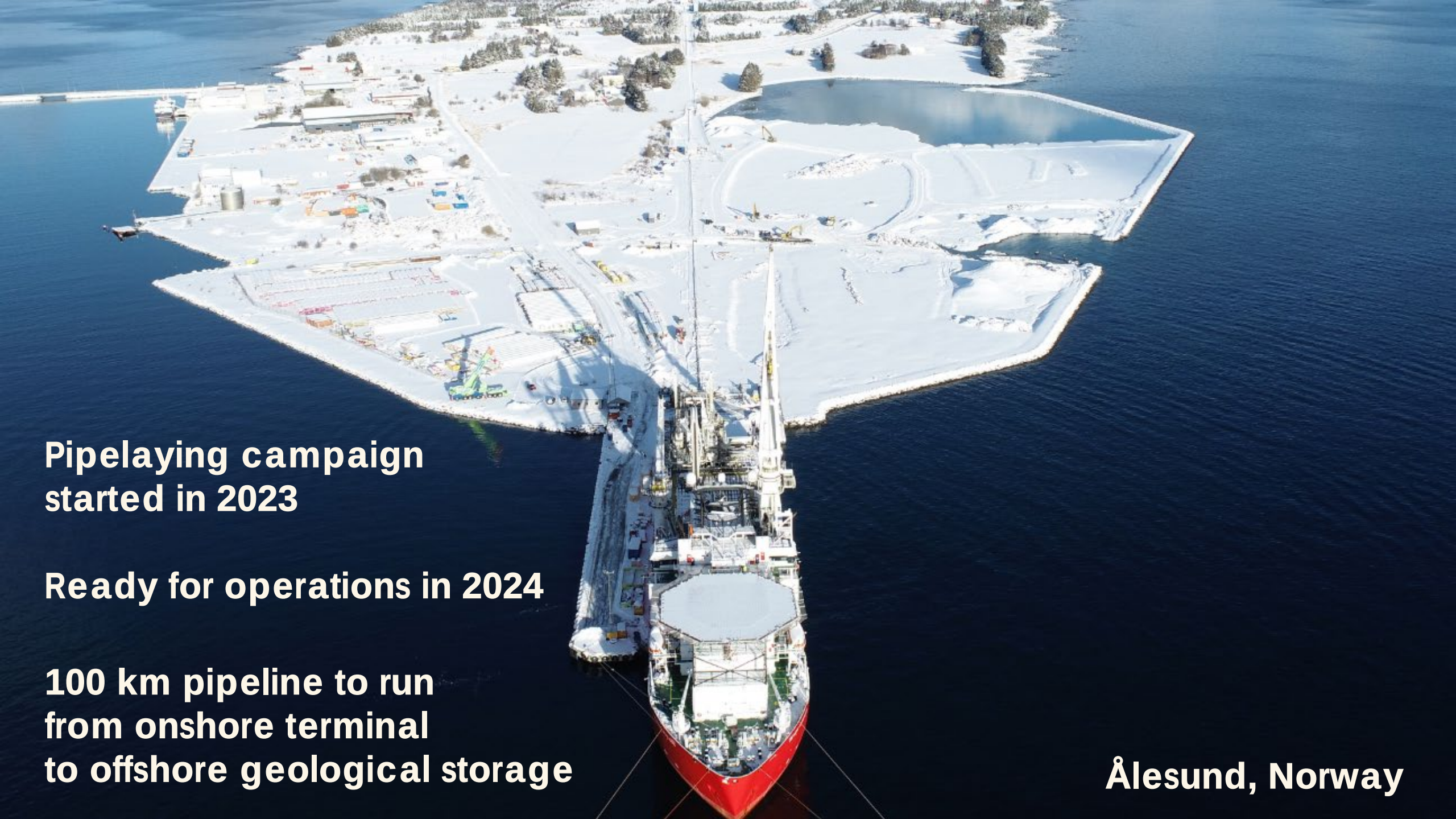
→Our facilities reached 91% completion overall
- Tested our two CO_2 injection wells
- We will be ready for operations this year
- On schedule and on cost!

→Signed two commercial agreements
- Yara and Ørsted
- Reached 4 customers

→Order two new CO_2 ships
- Increasing our fleet to 4 CO_2 ships
- World's largest dedicated CO_2 shipping fleet

→Awarded €131 mln EU funding towards Phase II expansion

Northern Lights is on schedule and on cost!



Pipelaying campaign started in 2023

Ready for operations in 2024

100 km pipeline to run from onshore terminal to offshore geological storage

Ålesund, Norway

Øygarden, Norway

Onshore Facilities

Construction progressing on time and on budget

Ready for operations in 2024

CO_2 Ships

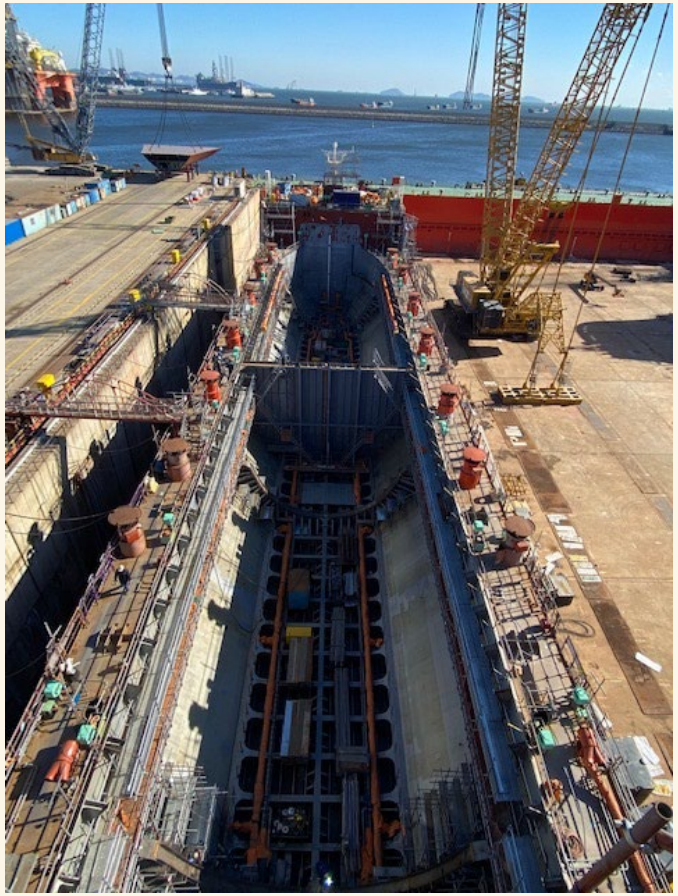
- 4 ships on order
- World's largest dedicated liquified CO_2 ships
- Cargo capacity: 7,500 m^3
- Length: 130m

- Medium pressure cargo containment
  - App. 15 bar(g) and -26°C
- LNG as fuel, wind assisted propulsion system and air lubrication will reduce carbon intensity by around 34% compared to conventional systems

CO_2 ships are on schedule for delivery in 2024

First two CO_2 ships' custom-built cargo tanks are being installed in Q1 2024

Before



Cargo tank lifting

After

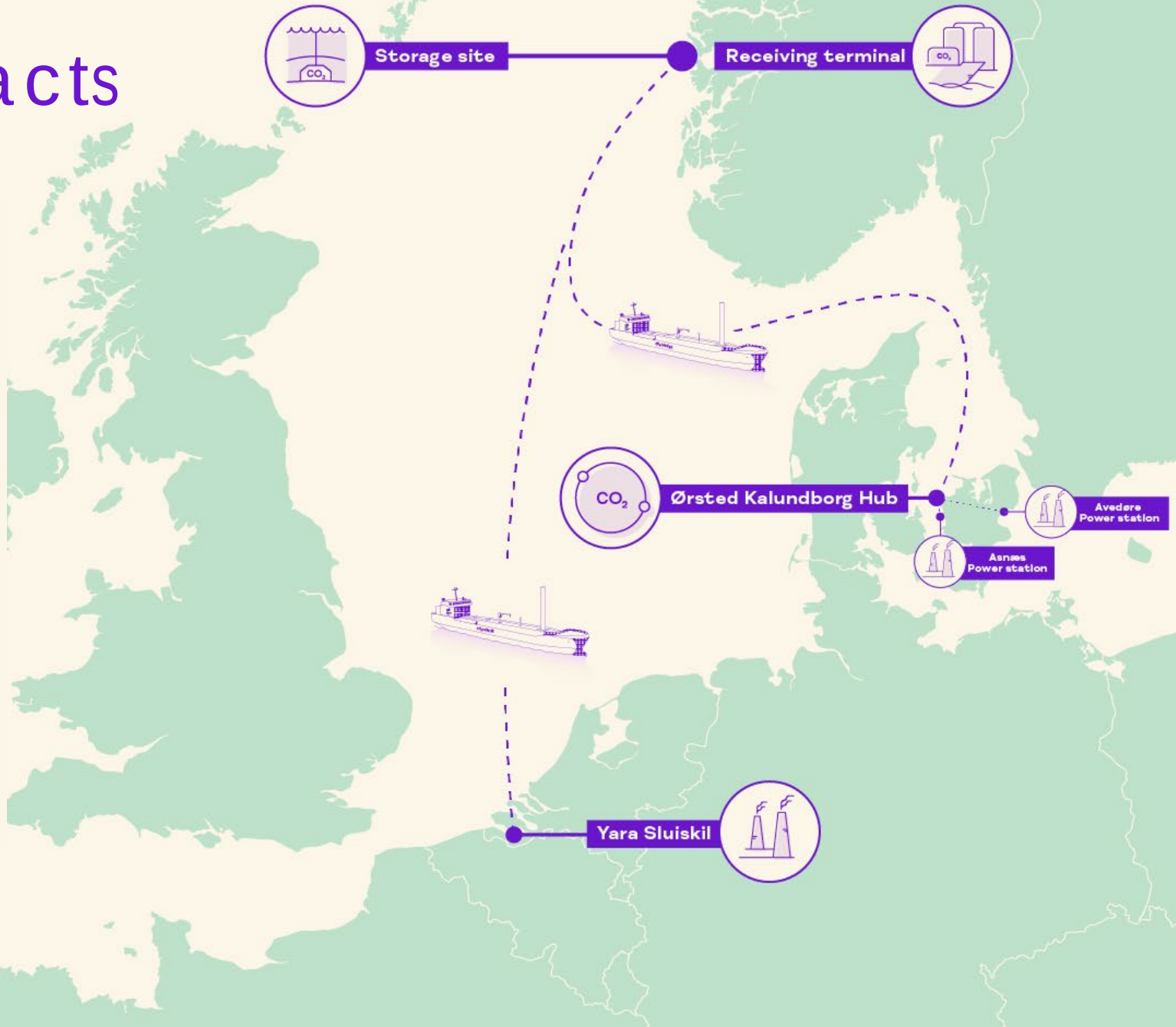
Commercial contracts

Ørsted

- → Bioenergy plants in Denmark
- → 430,000 tonnes CO2 annually

Yara

- → Ammonia and fertiliser plant in the Netherlands
- → 800,000 tonnes CO2 annually



Phased development

→ Phase 1: under construction

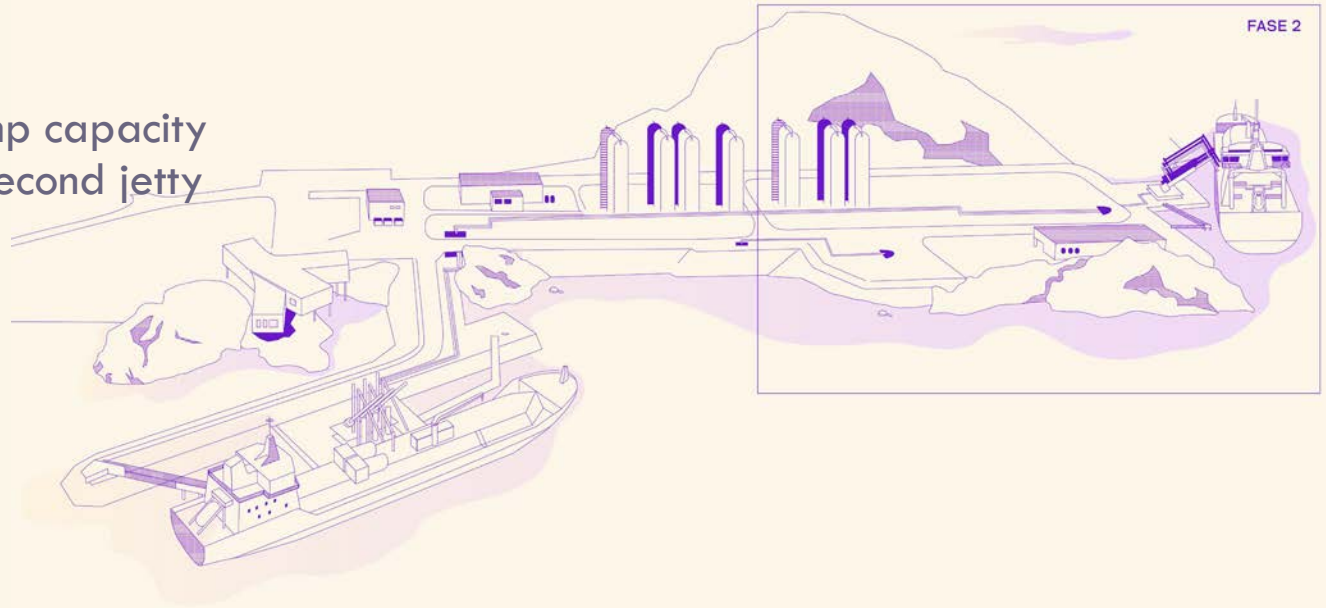
- 1.5 MTPA capacity, ready for operations in 2024
- 4 ships @ 7,500 m^3 and 2 wells (one back-up)
- Pre-investment in Phase 2 civil works and oversized pipeline
- Combination of commercial and Longship volumes

→ Phase 2 expansion: commercial development

- "Filling the pipeline": 5-7 MTPA
- Additional ships, storage tanks, increased pump capacity and associated utilities, more offshore wells, second jetty

→ Growth

- Additional pore space
- Various concepts under consideration



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