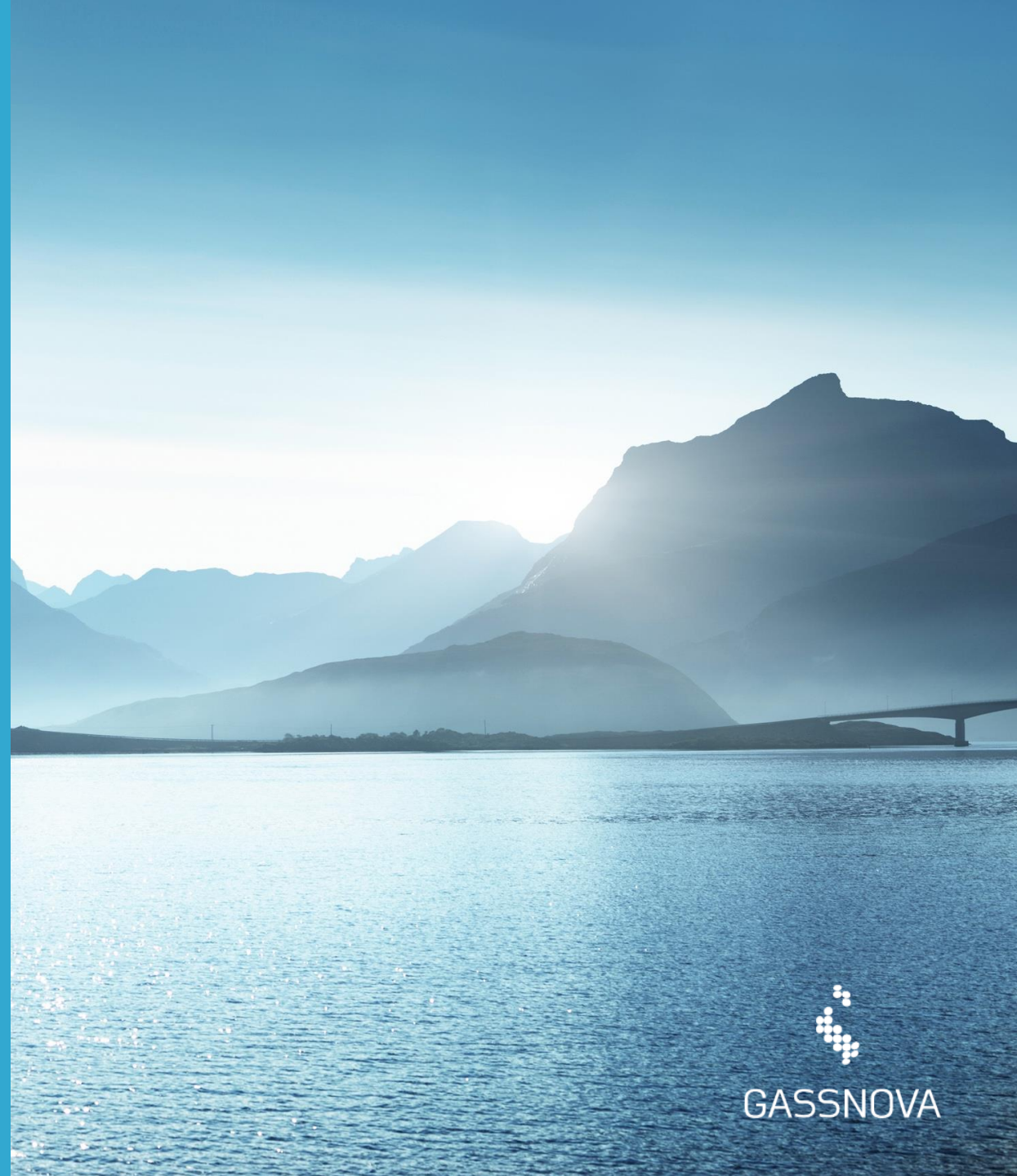


Brief market and technology overview

Audun Røsjorde, Director Technology Development



Technology status

- Longship shows that the technology for this kind of CCS chain is ready for use:
 - Capture from flue gas with amine technology
 - Transport with LCO2 ships
 - Onshore receiving terminal with pipeline offshore
- Amine technology is the proven «workhorse» of CO₂ capture
 - However, still pilot tests are often wanted



Developments - capture:

- Modularization
- More compact (press./rot.)
- Membranes
- Sorbents
- Hybrid solutions
- Etc.

Developments – transport/storage:

- Depleted HC reservoirs
- Direct injection
- Improved monitoring
- Lower transport pressure
- Improved simulation models
- Etc.

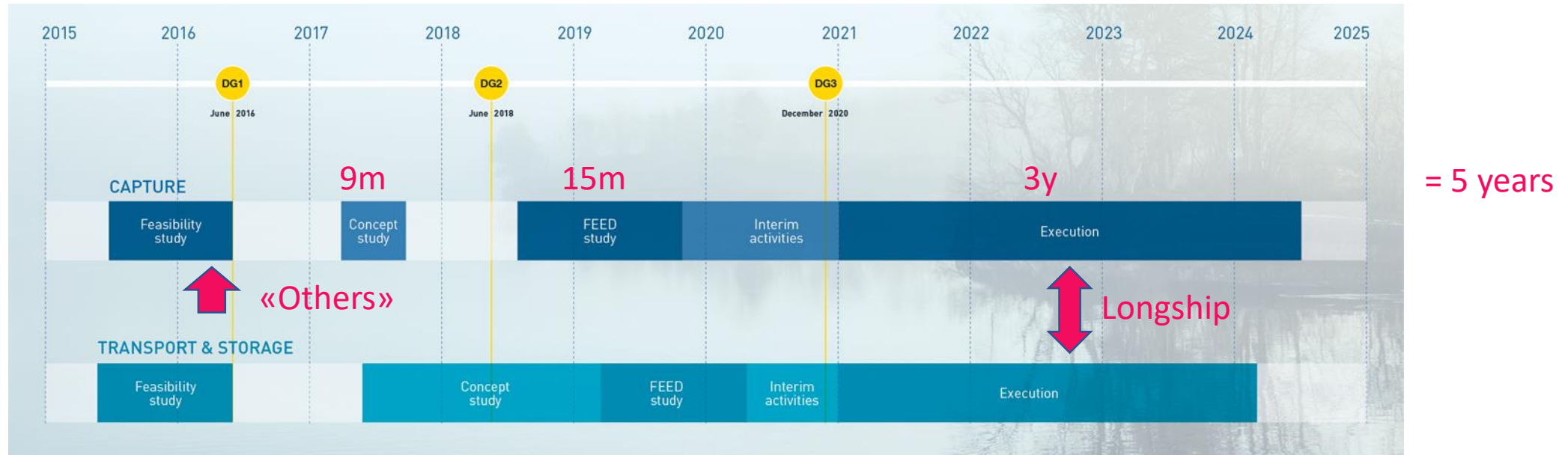
Reduced cost
Lower risks
Shorter lead time

Many CCS-projects in the making



- Industry, oil & gas, and waste-to-energy
- Stand-alone projects and clusters
- Feasibility studies and pilot tests supported by Climit
 - 30 projects
 - 100 partners
 - 160 MNOK total budget (47% state funding)

Looking ahead – timing and challenges in Norway



- Besides the capture plants at Norcem and Celsio, it is unlikely that we will see the startup of other capture plants before 2028
- Some challenges:
 - Financing the construction & operation, but also the project development
 - In early studies, storage with Northern Lights is naturally the base case, but storage capacity need to be scaled up
 - Cooperation between companies with different investment horizon, different commercial drivers, etc. (working in clusters)
 - Developing local infrastructure



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