

# GASSNOVA'S ROLE IN THE DEPLOYMENT OF CCS



GASSNOVA

Trude Sundset, CEO



# THE TIME IS NOW!

No country can reach the Paris Agreement without CCS in industry and energy sectors. This puts pressure on all countries to create a CCS infrastructure sooner rather than later.

**‘CCS is an important part of the government’s climate policy, and our ambition is to realise at least one full scale demonstration project for CCS ’**

*Terje Sjøviknes, Minister of Petroleum and Energy*



GASSNOVA



## GASSNOVA SF

The Norwegian State Enterprise for CCS

- Manage the State's CCS interests
- Advise the Ministry of Petroleum and Energy
- Contribute to technology development and knowledge-sharing

# OUR HOLISTIC APPROACH







## CO<sub>2</sub> TECHNOLOGY CENTRE MONGSTAD (TCM)

- The world's largest and most flexible test facility for CO<sub>2</sub> capture
- Aker Solutions, Alstom/GE, Cansolv Tech., Carbon Clean Solutions and ION Engineering
- Share expertise, knowledge and experience
- Owners: Gassnova, Statoil, Shell and Sasol
  - MoU with Total
- Operations for three more years

Norcem Heidelberg  
Cement plant



Yara Porsgrunn  
Fertilizer plant



Klemetsrudanlegget AS  
Waste-to-energy plant



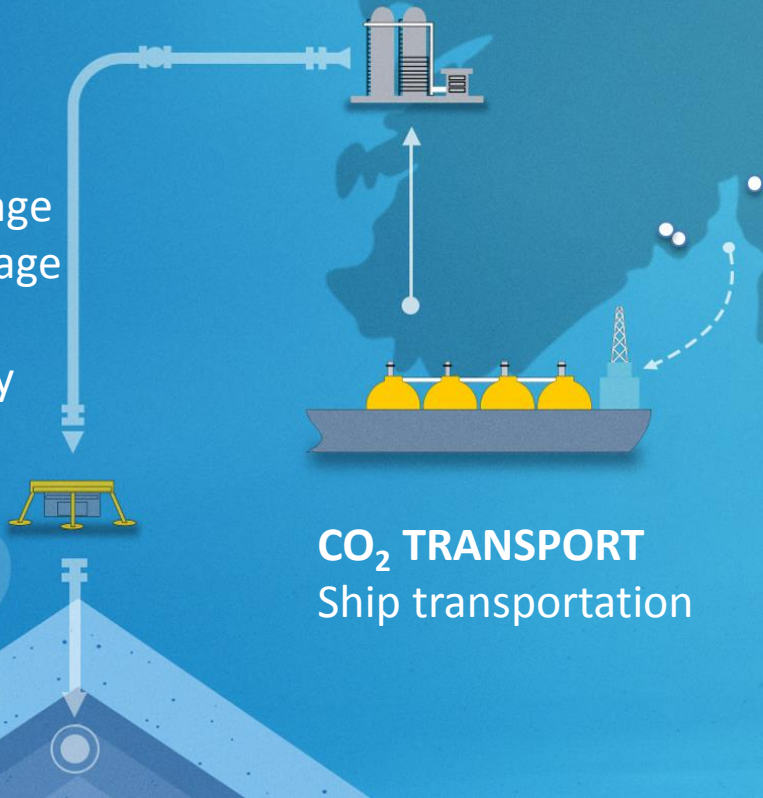
**NORWAY:  
FULL-SCALE CCS PROJECT**



# NORWAY: FULL-SCALE CCS PROJECT

## CO<sub>2</sub> STORAGE

- Intermediate onshore storage
- Offshore storage at Smeaheia
- Large capacity



## CO<sub>2</sub> TRANSPORT

Ship transportation

## CO<sub>2</sub> CAPTURE



**Norcem Brevik**  
Cement plant

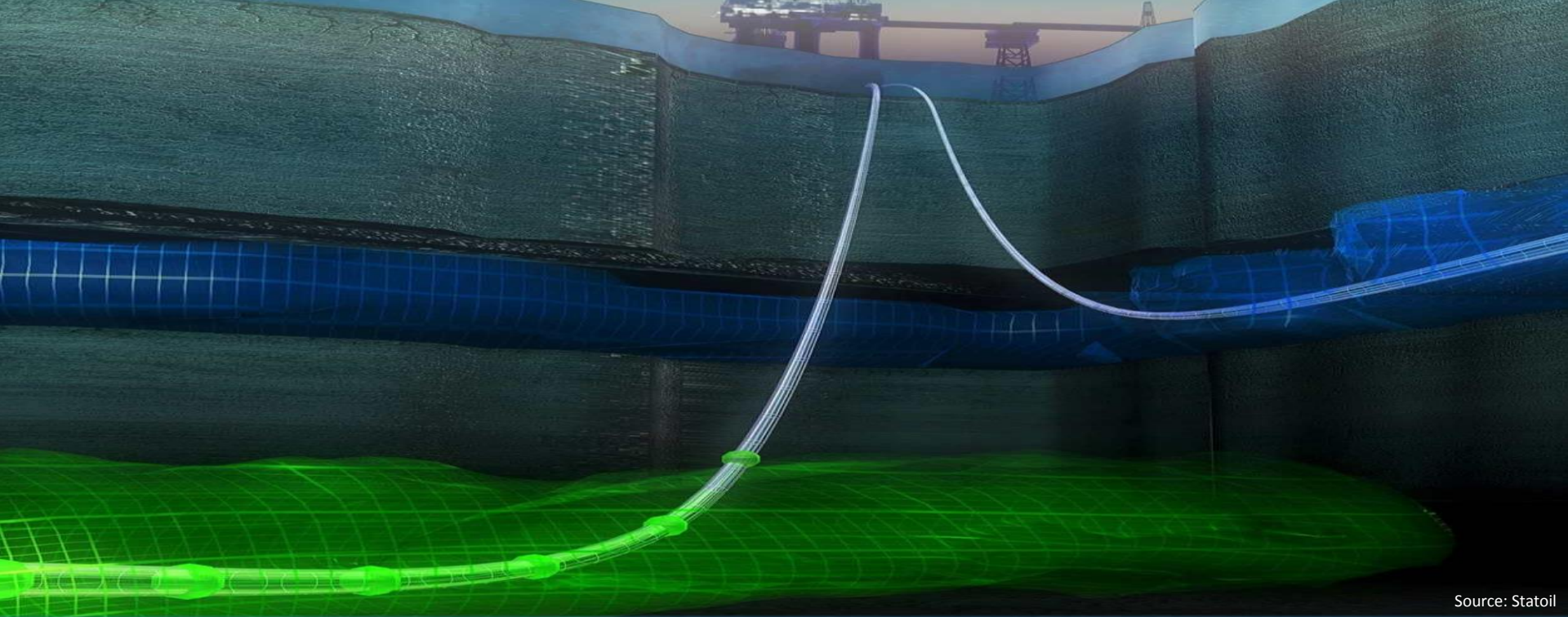


**Yara Porsgrunn**  
Ammonia plant



**Klemetsrudanlegget AS**  
Waste-to-energy plant





Source: Statoil

## CO<sub>2</sub> STORAGE

- An offshore storage site in a saline aquifer
- The "Smeaheia" storage located 50 km from the coast
- Large storage capacity (project will utilize < 1%)



**MAYBE WE CAN TURN  
THE NORTH SEA INTO  
A CO<sub>2</sub> STORAGE HUB  
FOR ALL OF EUROPE**