

UNECE CCS-panel 25 March 2022

Brevik CCS –  
Carbon Capture at  
Norcem Brevik

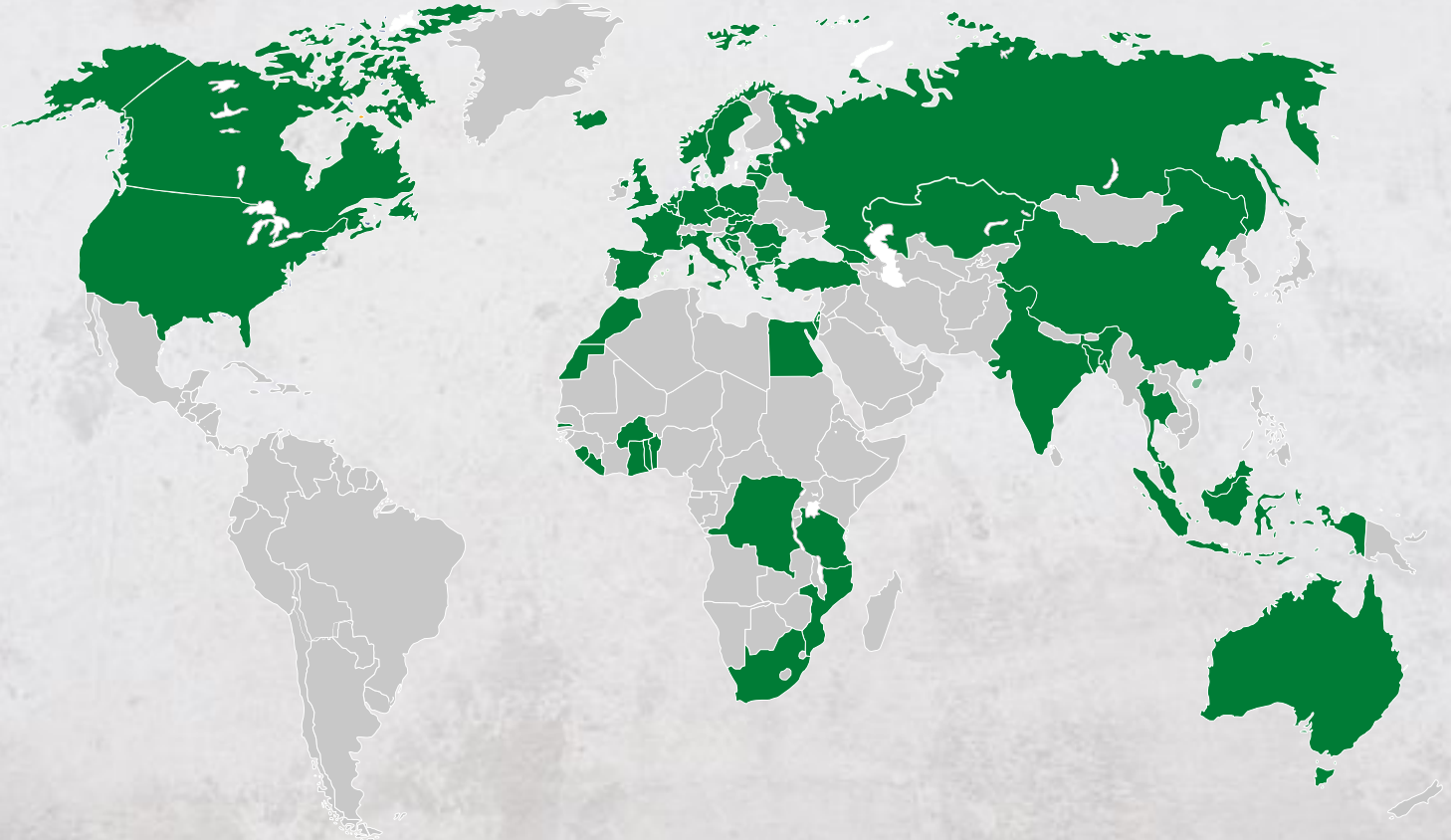
Per Brevik

Dir. Sustainability and Alt. fuels HC NE



# HC is the largest vertically integrated building materials producer in the world

- 53,000 employees
- Leading market positions in aggregates, cement, and ready-mixed concrete
- 3,000 production sites in more than 50 countries
- Cement capacity 184 mt (incl. joint ventures)
- Aggregates resources and reserves 19.2 bnt



# Concrete is essential for building a sustainable society

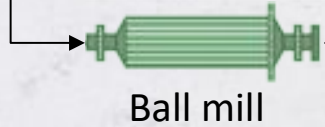


# Hard-to-abate industry / 65% of the CO<sub>2</sub> coming from the production process

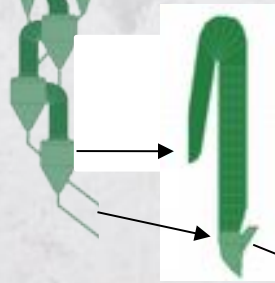
Sand & Gravel  
Split & Crushed Rock  
Limestone, Clay



Quarry



Cyclone  
preheater



Calcliner



Kiln

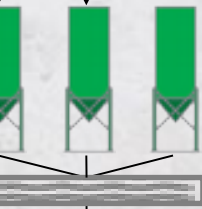


Fuels

Ball mill

65%  
CO<sub>2</sub>

35%  
CO<sub>2</sub>

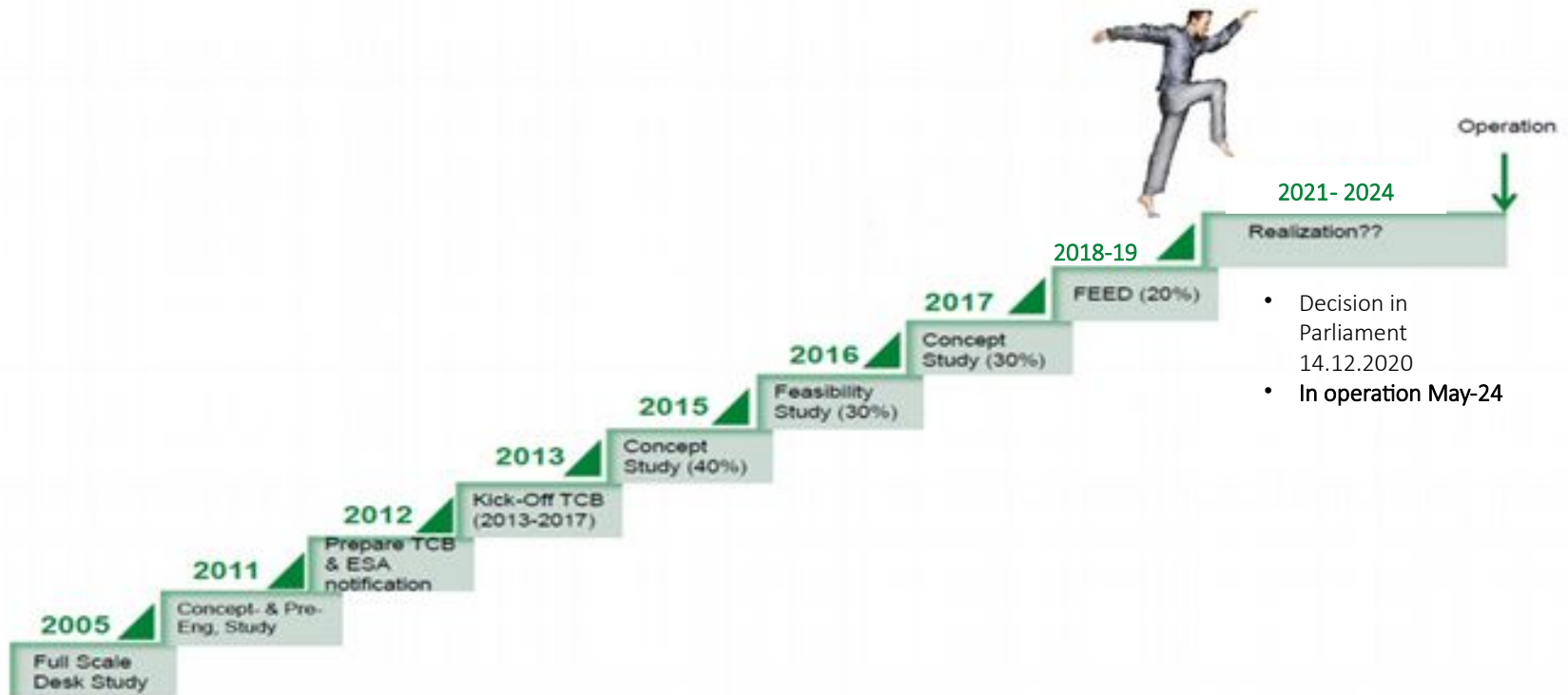


Concrete



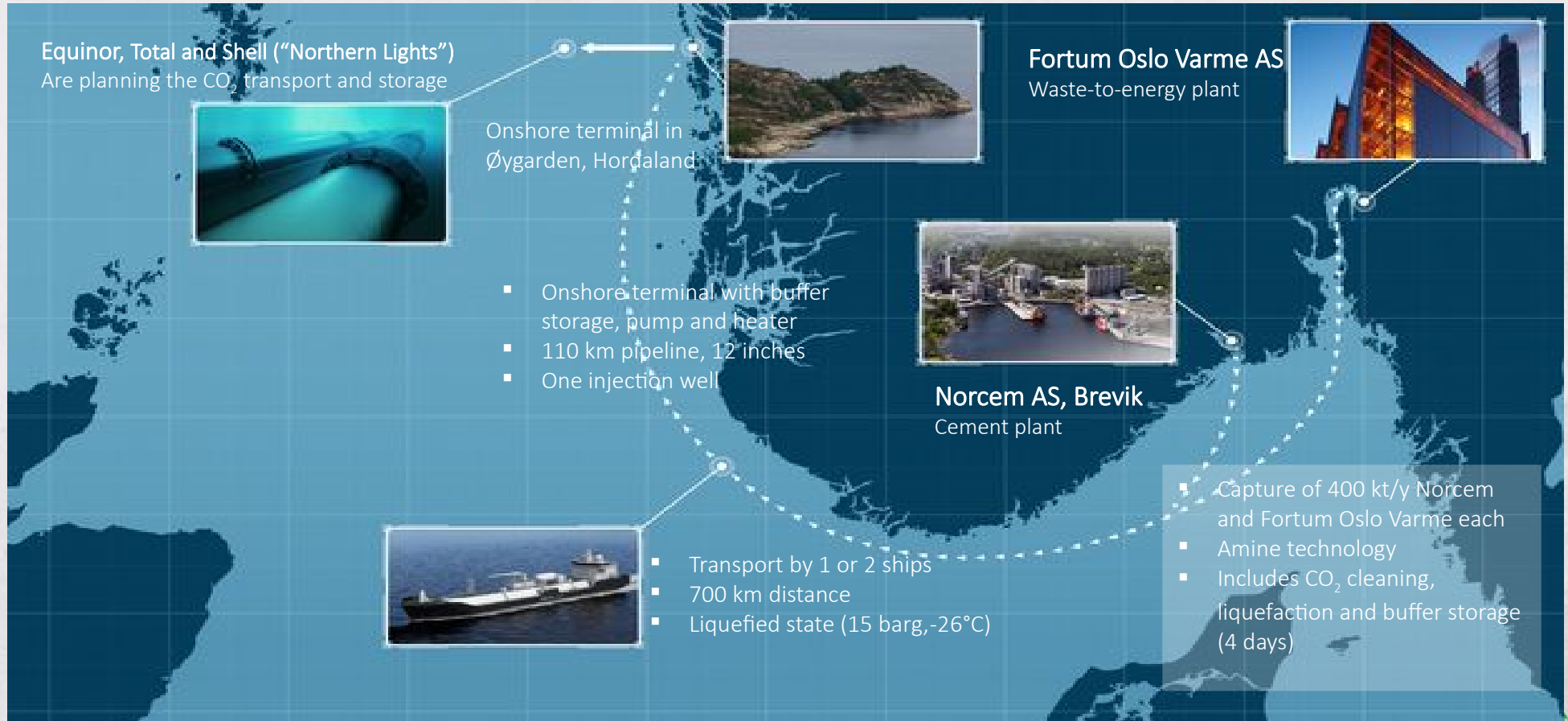
Construction site

# A long and winding road towards CCS in Brevik ...



- Decision in Parliament 14.12.2020
- In operation May-24

# The Norwegian Carbon capture Demonstration project

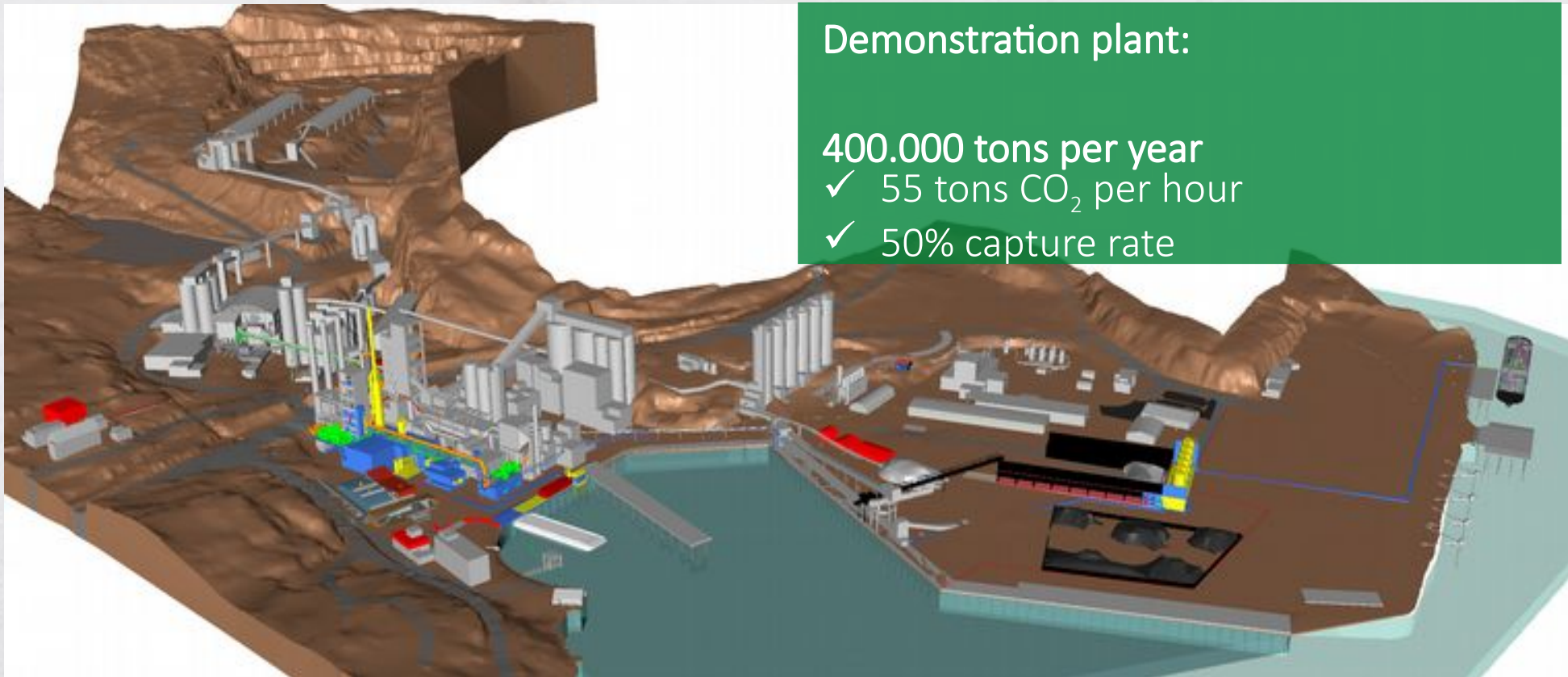


## CO<sub>2</sub> capture Brevik

Demonstration plant:

400.000 tons per year

- ✓ 55 tons CO<sub>2</sub> per hour
- ✓ 50% capture rate



Simultaneously building a new factory whilst maintaining full operational capacity in the current plant

# We have started the journey towards 2024

Started  
2021

2024

Estimated view July 2024



Demolition phase

Building phase

Testing phase





## INFRASTRUCTURE

will be the most important  
«take away» from the  
Norwegian project



# Brevik CCS will be the first in a row of HC projects ...



- Targeting ~4mt\*\* CO<sub>2</sub> reduction p.a. from 2030 with our announced CCU/S projects
- Further CCS projects with significant CO<sub>2</sub> reduction potential in Eastern Europe in the pipeline
- We are the frontrunner in the industrial scale-up of CCU/S technologies in the sector

\* Include accumulated contribution from CCU/S projects Brevik, Edmonton, Slite, and HyNet from 2024 to 2030

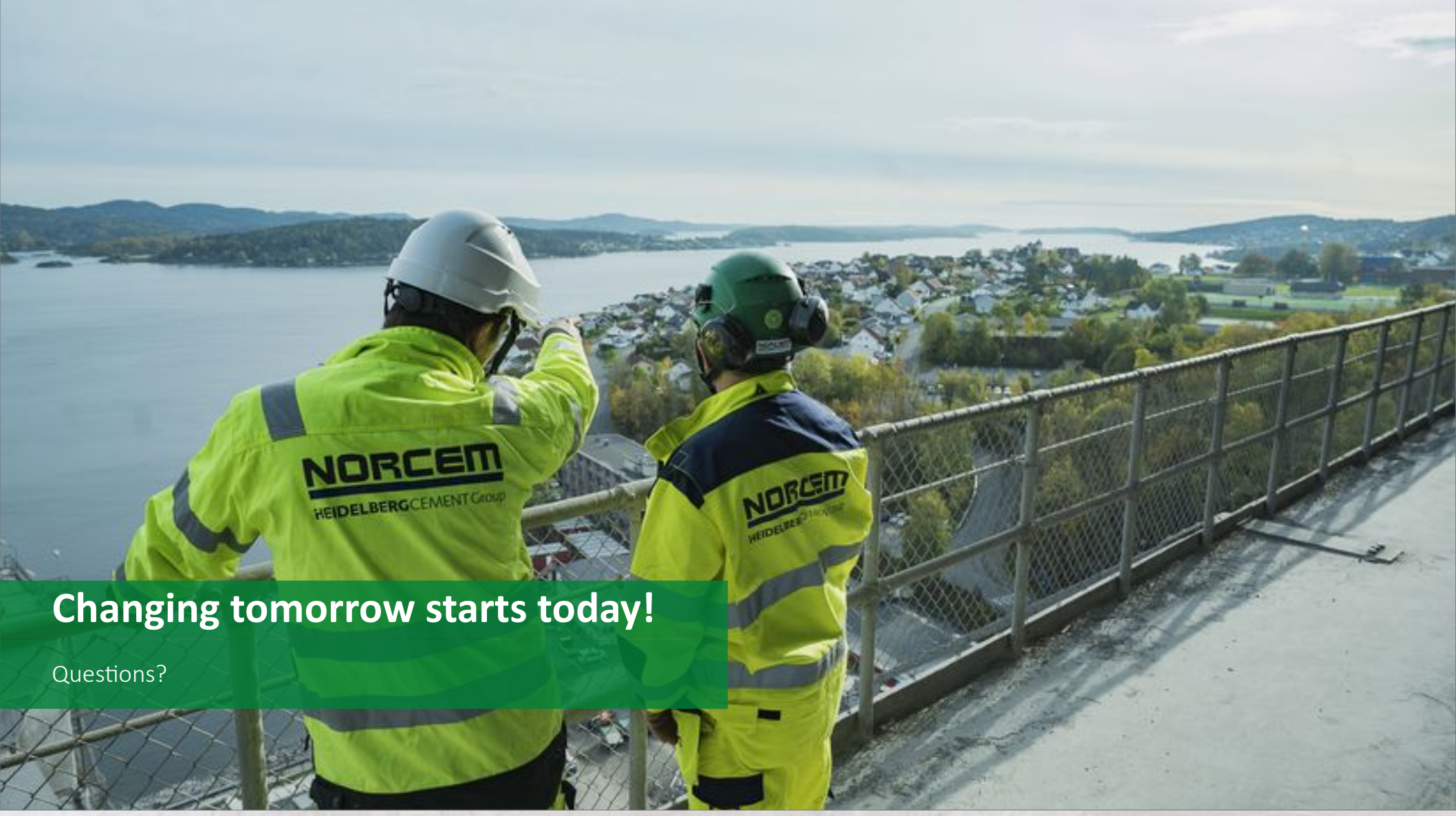
\*\* Include yearly contribution from CCU/S projects Brevik, Edmonton, Slite, and HyNet as of 2030

## Brevik CCS - in a nutshell

### First full-scale CCS plant in cement industry

- The cement industry; one of the big emitters!
- Our experiences / «Lessons learnt» from realization and operation will be valuable for both cement industry and other process industries!
- It's a political project; but realizing the first full-scale carbon capture project in Cement industry within a reasonable budget and time will be the best argument for launching the next projects!





**Changing tomorrow starts today!**

Questions?