

CCS Talks: Europe's next CCS Facilities

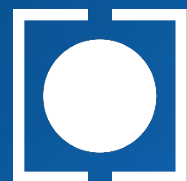
PRESENTERS:

TRUDE SUNDSET, CEO - GASSNOVA

MARK DRIESSEN, MANAGER PUBLIC AFFAIRS – PORT OF ROTTERDAM

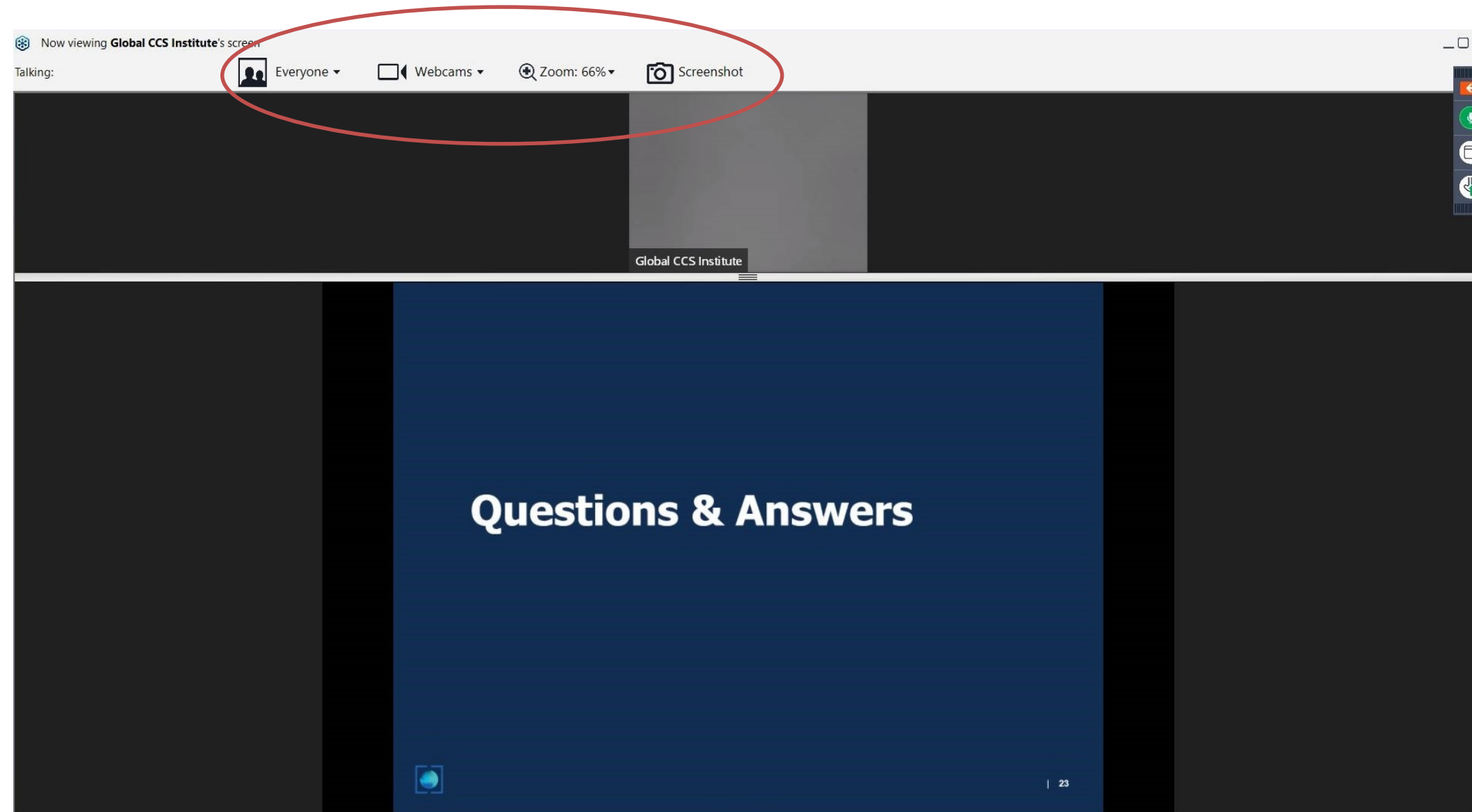
MODERATED BY:

JAMIE BURROWS, CLIENT ENGAGEMENT MANAGER, GLOBAL CCS INSTITUTE



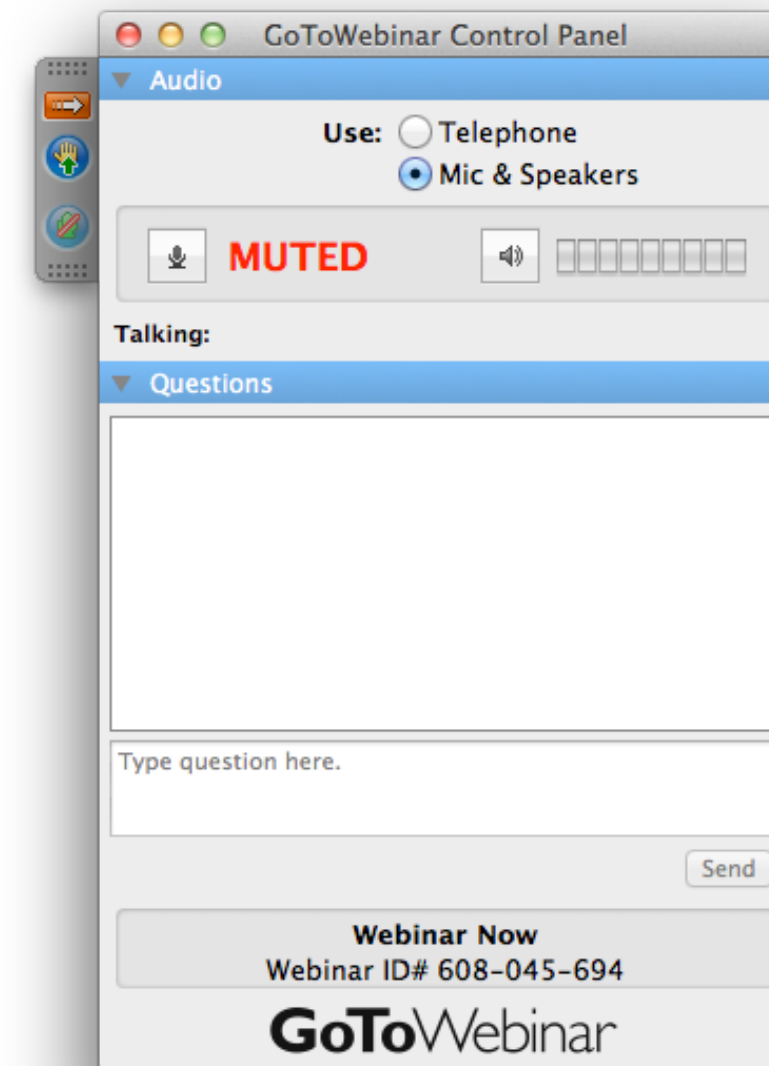
GLOBAL CCS
INSTITUTE

ADJUSTING THE VIEW



ASKING QUESTIONS

- We will collect questions during the presentation.
- Moderator will pose these question to the presenters after the presentation.
- Please submit your questions directly into the GoToWebinar control panel.



PRESENTERS



TRUDE SUNDSET

CEO - GASSNOVA

THE FULL SCALE PROJECT IN NORWAY



MARK DRIESSEN

MANAGER, PUBLIC AFFAIRS PORTHOS - PORT OF ROTTERDAM,
PORTHOS PROJECT





Trude Sundset, CEO



GASSNOVA

A woman wearing a white hard hat, blue earmuffs, safety glasses, and a bright yellow high-visibility jacket stands in profile on a large white industrial pipe. She is looking out over the ocean towards a large offshore oil rig at sunset. The rig has several tall chimneys and a complex network of pipes and platforms. The sky is a mix of orange, yellow, and blue, with some clouds. The water is dark and calm.

24
years of CCS experience

Fortum Oslo Varme

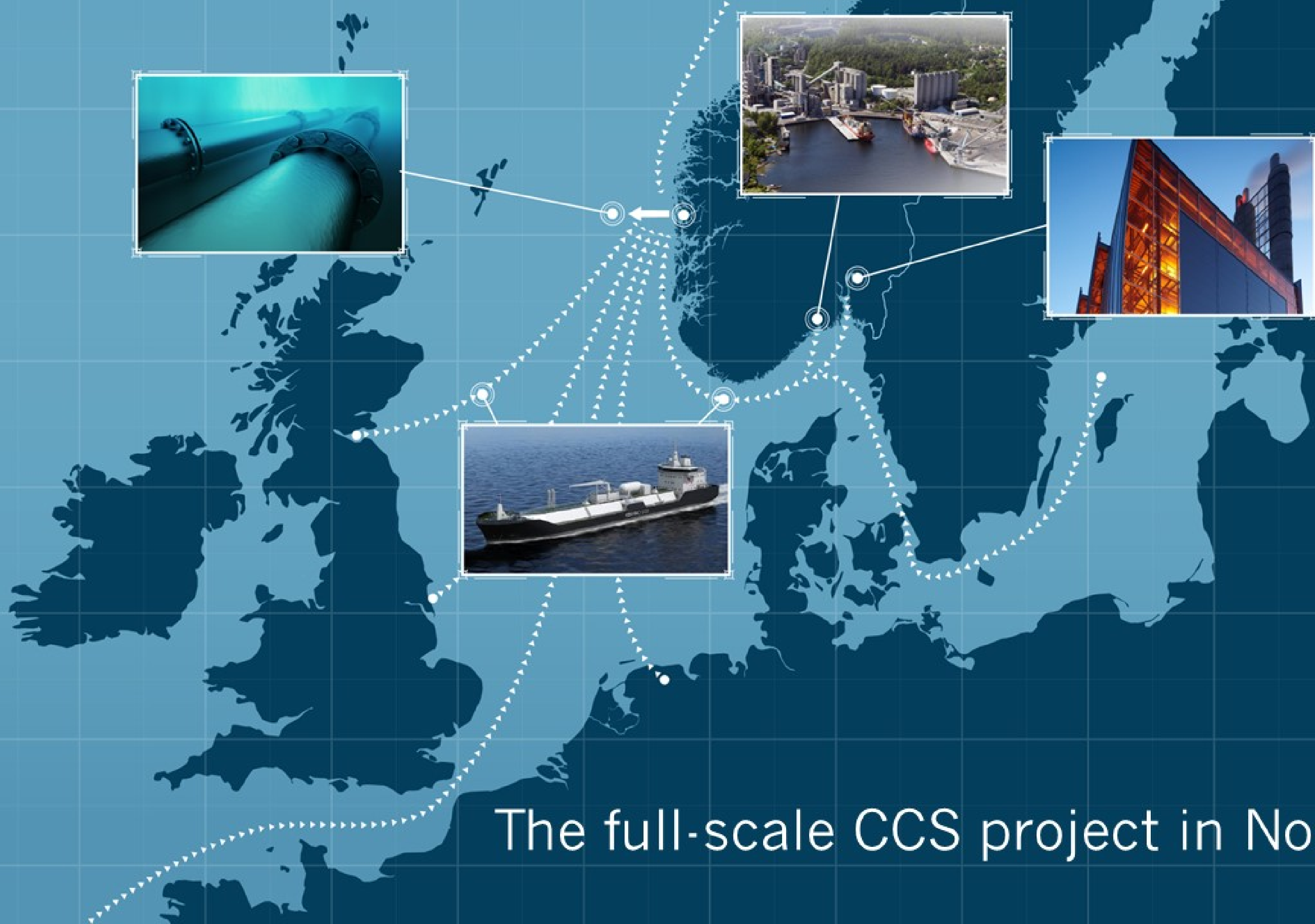
Waste-to-energy plant in Oslo



Norcem (part of the HeidelbergCement Group)

Cement factory in Brevik

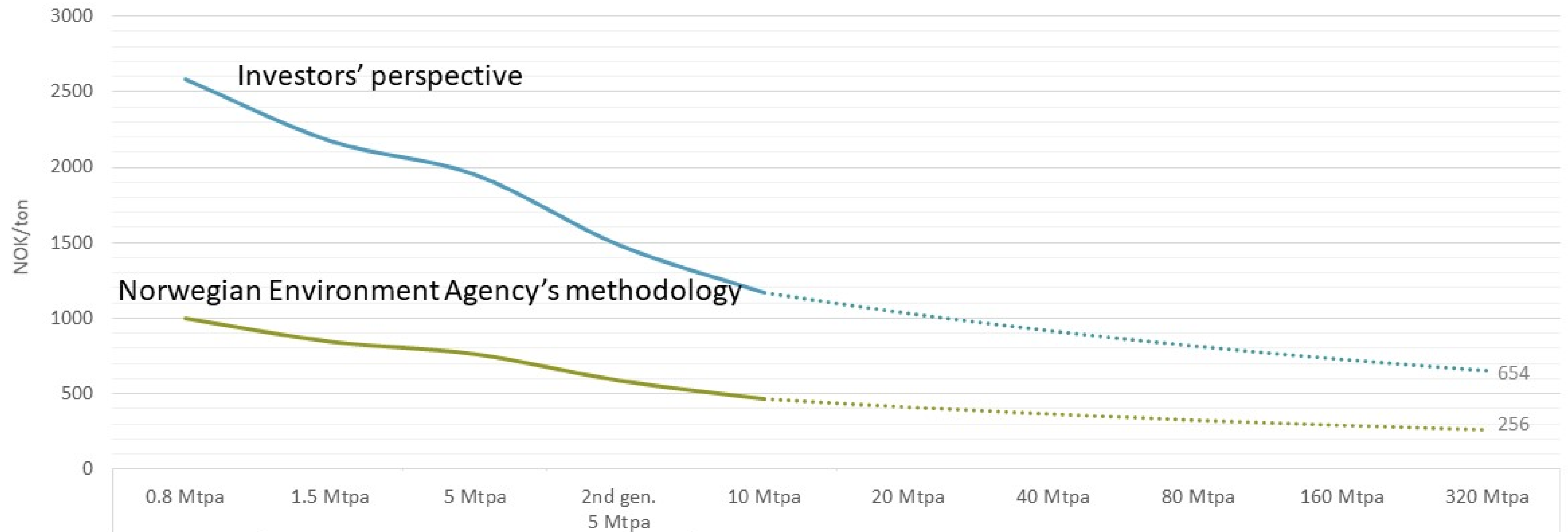




The full-scale CCS project in Norway



CCS costs will come down



Source: DNV GL

Fatih Birol, executive director of the International Energy Agency, thinks governments should embrace the chance to build a **“GREEN NEW DEAL” INTO THEIR BAILOUT PACKAGES.**

Source: Norwegian SciTech News



Important milestone in the Northern Lights storage project

SOURCE: PRESS RELEASE, 15 MAY 2020

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Norwegian Minister of Petroleum and Energy, Tina Bru (photo: OED/NTB Scanpix)

The Norwegian Ministry of Petroleum and Energy has received and started its assessment of the development plan for the Northern Lights CO₂-storage project.

**THE GREEN
NEW DEAL
FOR EUROPE**

“I am firmly convinced that this can only be done if one is **WILLING TO CAPTURE AND STORE CO₂**. The countries in question do not deny this. The method is called CCS – and for many in Germany it is a highly charged term.”

Source: The Guardian





Prime Minister Erna Solberg

Source: aftenposten.no / Heiko Junge / NTB scanpix



Green transformation

CO₂ reduction through storage beneath the North Sea

GCCSI – Europe's next CCS facilities webinar, 18 June 2020

Mark Driessen

Manager Public Affairs, Stakeholders and Communications



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Climate objectives of the Netherlands

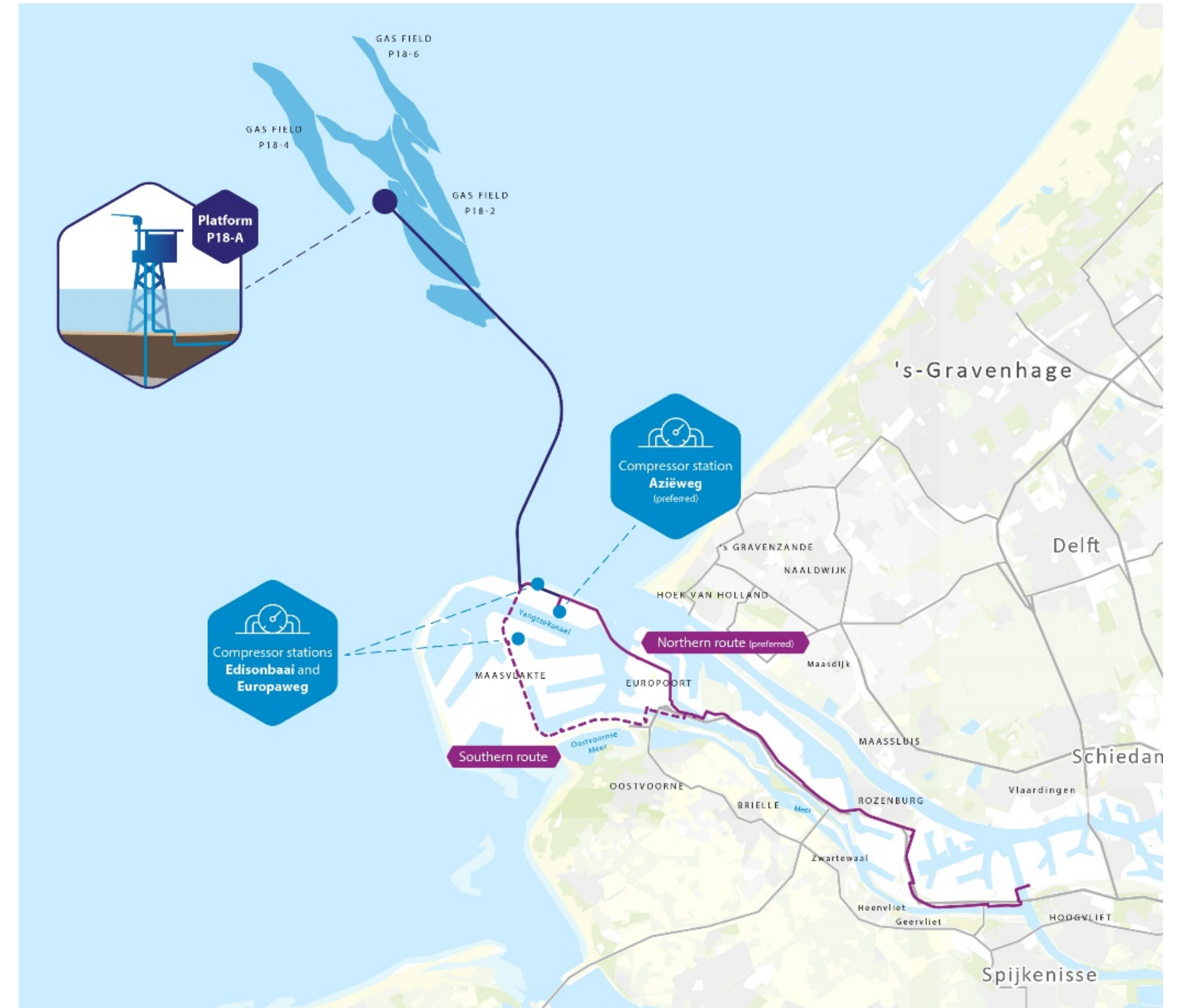


Rotterdam ideal
location for CCS



Project overview

- Dutch state-owned parties: EBN, Gasunie, Port of Rotterdam Authority
- Potential customers: Air Liquide, Air Products, ExxonMobil, Shell
- 2,5 Mton/year; ~ 37 Mton storage
- CAPEX: ~ € 400-500 million
- Planning: operational by the end of 2023



Public-private partnership for a successful project

State owned companies

Lead role,
invest in infrastructure



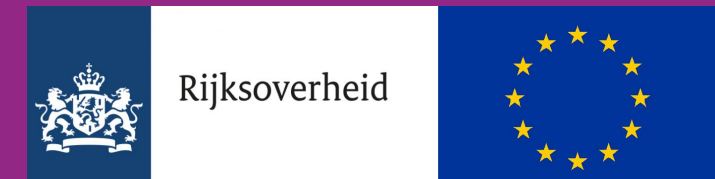
Private companies

Invest in capture,
pay for storage



Public authorities

Funding, mandate,
responsibility



Status and planning

2020

- Technical development
- Environmental Impact Assessment and permits
- Agreements with companies and government

2021

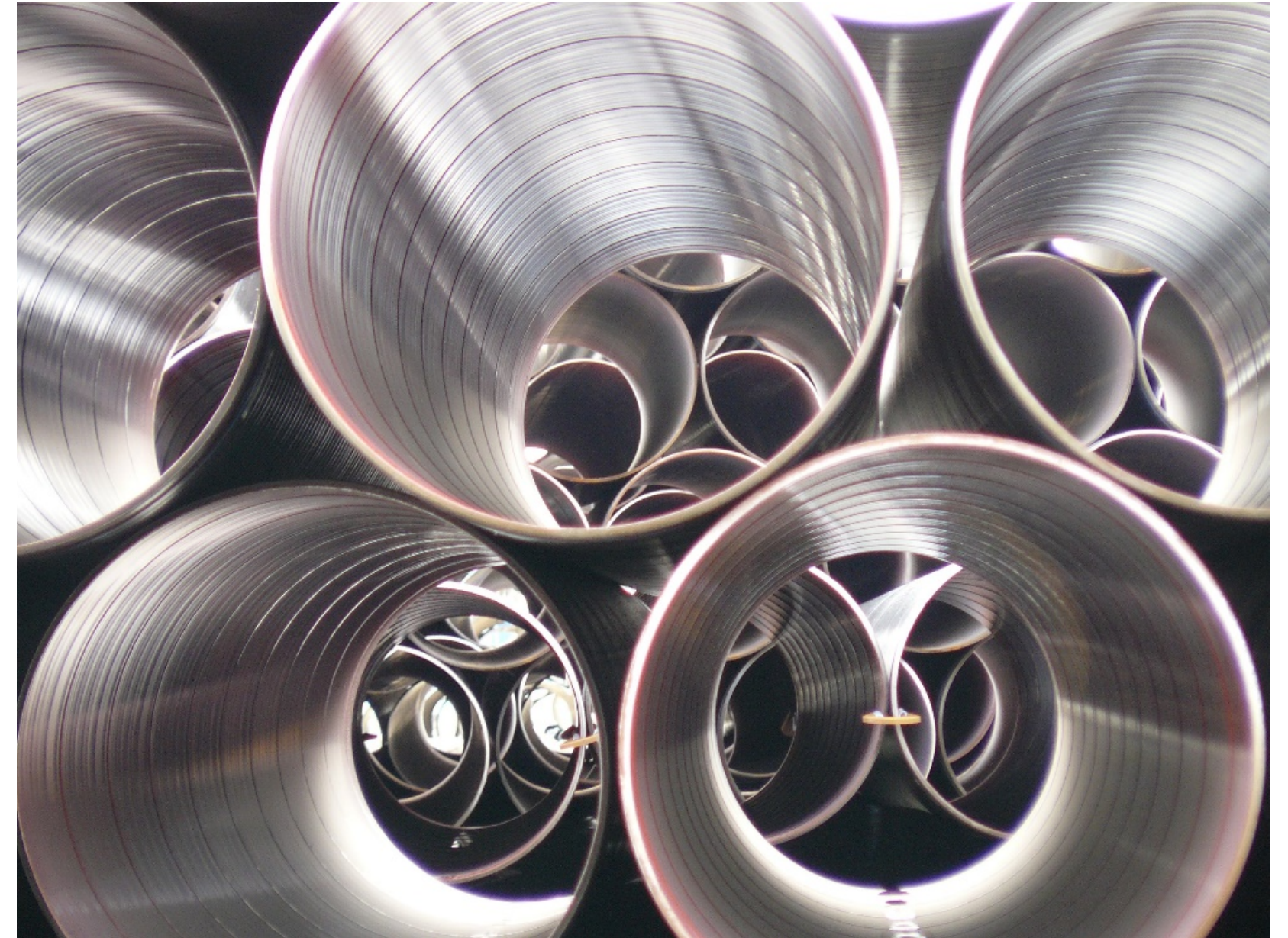
- Final Investment Decision (FID)

2022

- Construction of the system

End of 2023

- System operational



Thank you for your attention!

For more information, please visit:
www.porthosCO2.nl

The contents of this presentation are the sole responsibility of Porthos and do not necessarily reflect the opinion of the European Union.



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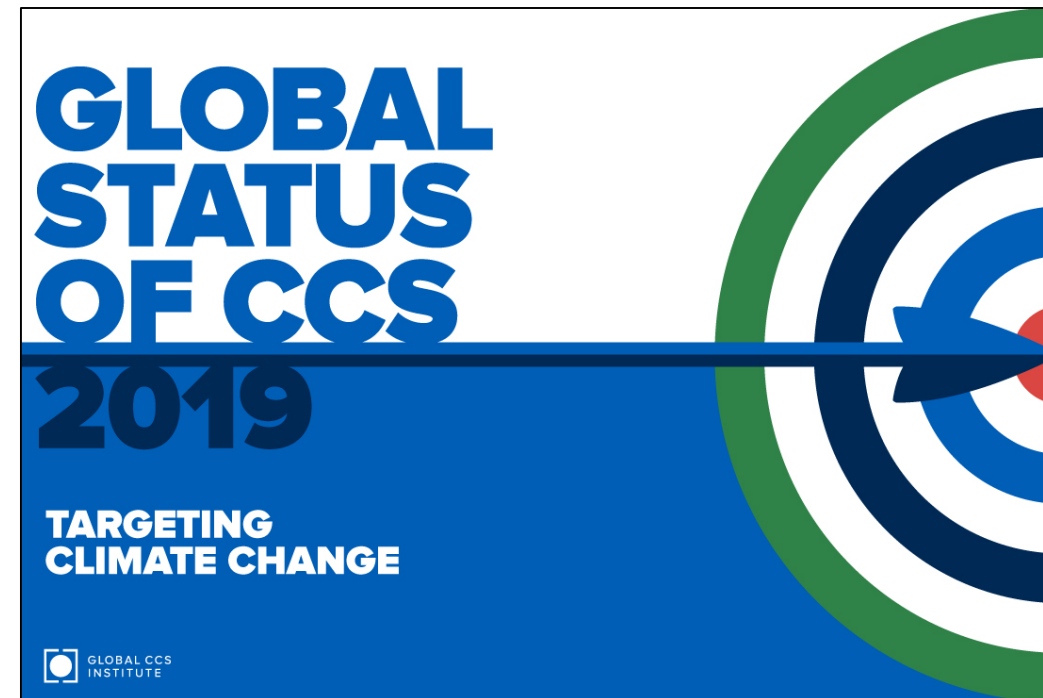
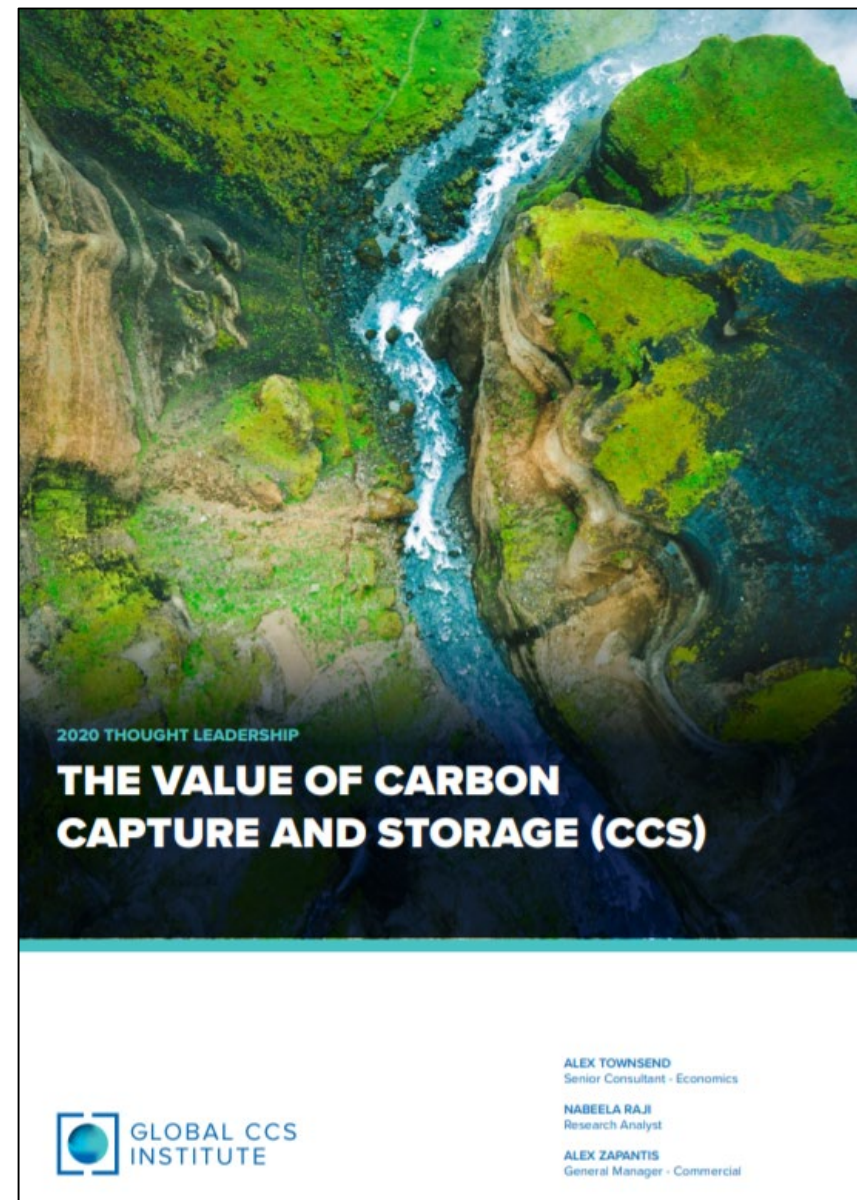
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Questions & Answers



FURTHER RESOURCES

www.globalccsinstitute.com



UPCOMING EVENTS

25 June: CCS Talks: What are the drivers of current CCS project development?
9 July: CCS Talks: The Alberta Carbon Trunk Line – Alberta's Carbon Solution

Register: globalccsinstitute.com/news-media/events

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