



G a s s n o v a

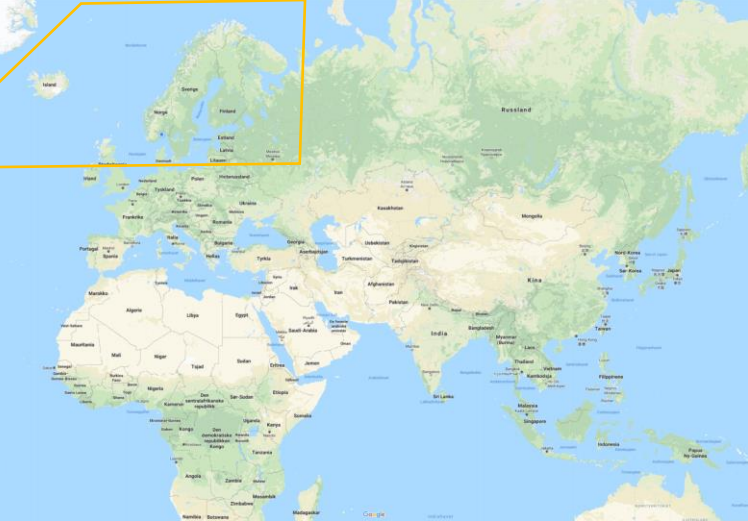
The Norwegian Full-scale project

Dr Kari-Lise Rørvik

FULL-SCALE

Outline

- **CCS in Norway**
 - Commitment to CCS
 - Gassnova SE
- **Infrastructure for Europe**



Commitment to CCS

SNØHVIT CCS
operational since 2008

**CO₂ Capture Test
Centre Mongstad
(TCM)**
operational since 2012

NORWEGIAN FULL-SCALE PROJECT
(2016-2024)

SLEIPNER CCS
operational since 1996

CLIMIT Programme

Technology Centre
(TCM)

Full-scale

G a s s n o v a S F

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



Example of a CLIMIT program project

The CO₂ Storage Data Consortium (CSDC):

CO₂ Data Share

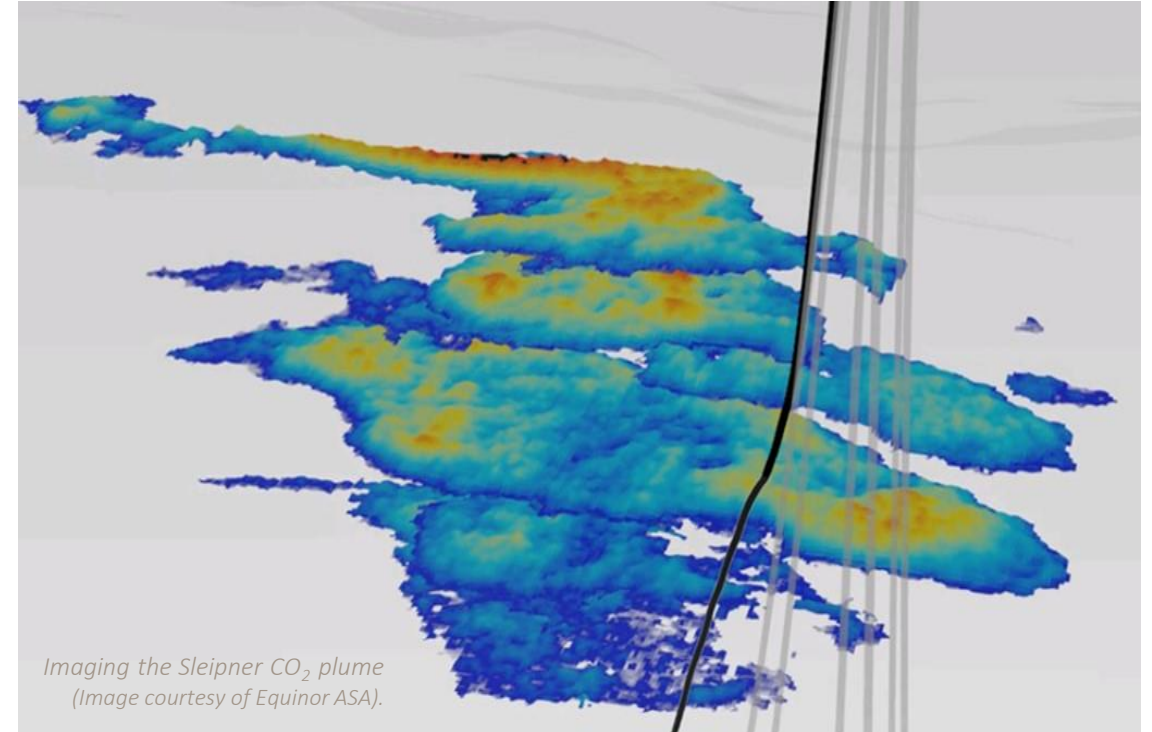
Building an international data-sharing platform

Presented by Kari-Lise Rørvik, Gassnova

Presentation made by Grethe Tangen, SINTEF with contributions from
Sallie Greenberg, University of Illinois; Philip Ringrose, Equinor; and Odd Andersen, SINTEF.
Contact: grethe.tangen@sintef.no

Sharing of CO₂ storage data is essential to:

- Advance research and capacity building within CO₂ storage
- Accelerate improved understanding, reduce costs and minimize uncertainties associated with storage of CO₂
- Simple, standard, and low cost solution to make data available to the research community worldwide
- Open international network for data and knowledge exchange



CO₂ Data Share - Objectives

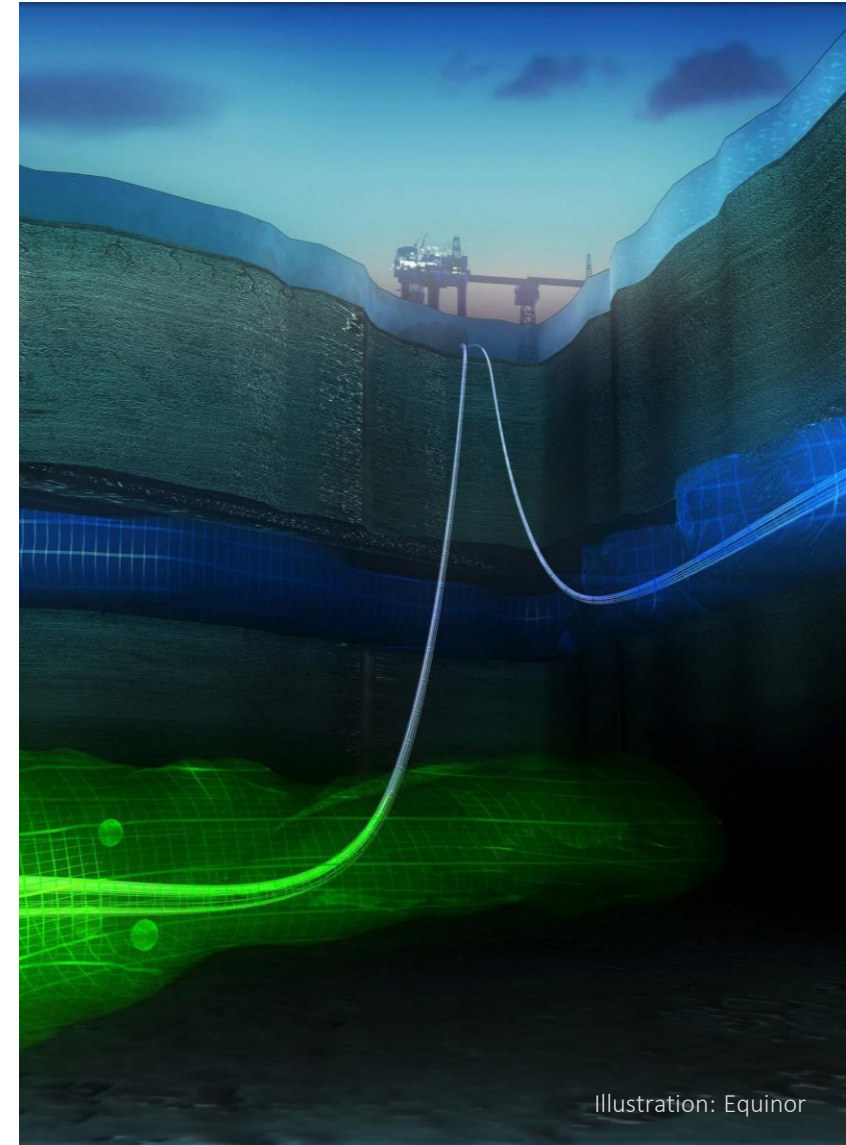
CO₂ Data Share is building a digital platform for sharing reference datasets from pioneering CO₂ storage projects:

- Lowers the threshold for data owners to share data
- Curates and prepares high-quality reference datasets
- Makes it easy to find, access and use well-documented datasets through an online repository
- Stimulates sharing of results and promote collaboration

Current Participants: SINTEF (project manager)/NCCS, University of Illinois, Equinor/NTNU and IEAGHG.

Funded by Gassnova/Climit and USDOE.

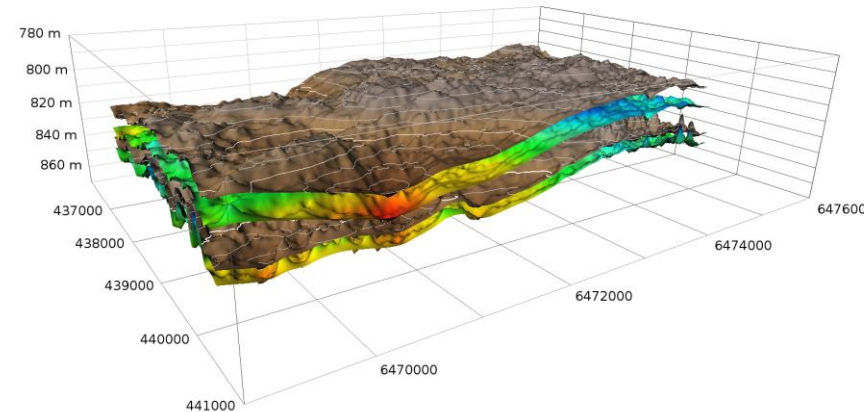
Project period 2018-2020. Budget 7,150,000 NOK (\$848,000).



CO₂ Storage Datasets (examples)

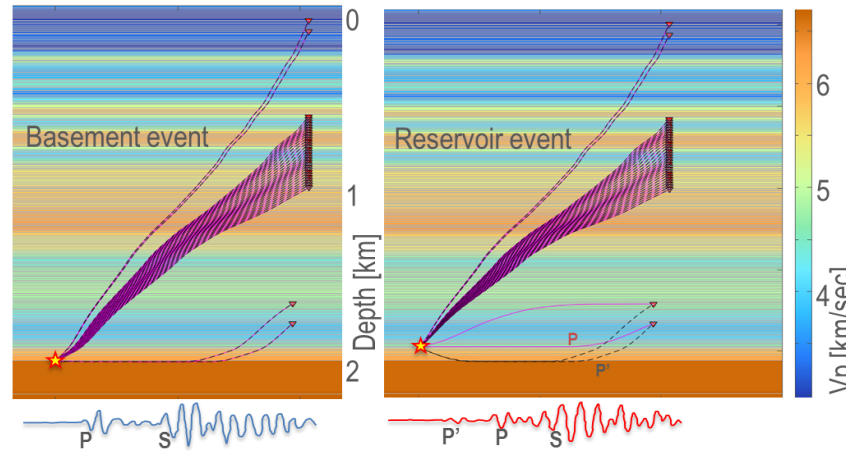
Sleipner CO₂ Storage Project

- Sleipner Layer 9 reference model (previously released via IEAGHG modelling network)



Illinois Basin-Decatur Project (IBDP)

- Microseismic event location example



CO₂ storage data characteristics

- Heterogenous datasets
- Several stakeholders

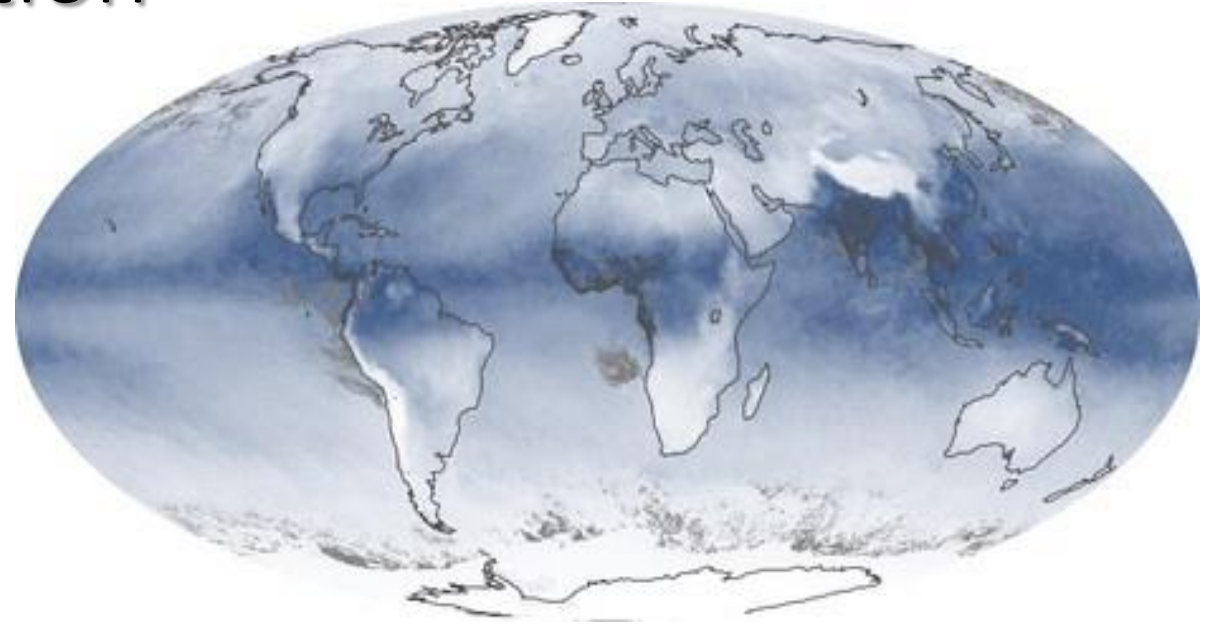
Data management* needed to ensure

- Findability
- Accessibility
- Interoperability
- Reusability

-> Overcome practical challenges of data sharing and accelerate learning & innovation from pioneering datasets

Expanding the Consortium and securing long-term operation

- CO₂ Data Share is awarded funding from Norway-US public funding schemes
 - CLIMIT
 - DOE/NETL
- Important to secure future international commitment and co-funding
- Need collaboration and funding mechanism for other countries to join and expand the CSDC (e.g. UK, Australia, China, Canada, Japan, South Africa)



III: NASA

Milestones coming up

- [All contracts signed](#) (May 2018)
- [Webinar](#) organised by IEAGHG:
Presentation of plans for online data access solution and invitation for feedback (May 24 2018)
- [User specification](#) (August 2018)
- [Webinar](#) organised by IEAGHG:
Presentation of user specification and opportunity to give feedback (September 2018)
- Poster at [GHGT-14](#) (October 2018) Opportunity for discussions
- [Technical specification](#) (November 2018)
- [Launch of First Datasets](#) (May 2019)
- [Webinars](#) (2019-2020) related to specific datasets
- [International workshop](#) (fall 2019)

*Presentation and
discussion at
CCS meetings and
seminars*

Please, contact the CO₂ Data Share secretariat if you

- Have questions regarding **consortium participation** as sponsor of funding and/or datasets or as user
- Want to share **comments or recommendations** for the further work of CO₂ Data Share

E-mail: csdc-secretariat@sintef.no or grethe.tangen@sintef.no

Web page in progress, will be launched via the Norwegian CCS Research Centre NCCS:
<https://www.sintef.no/nccs>

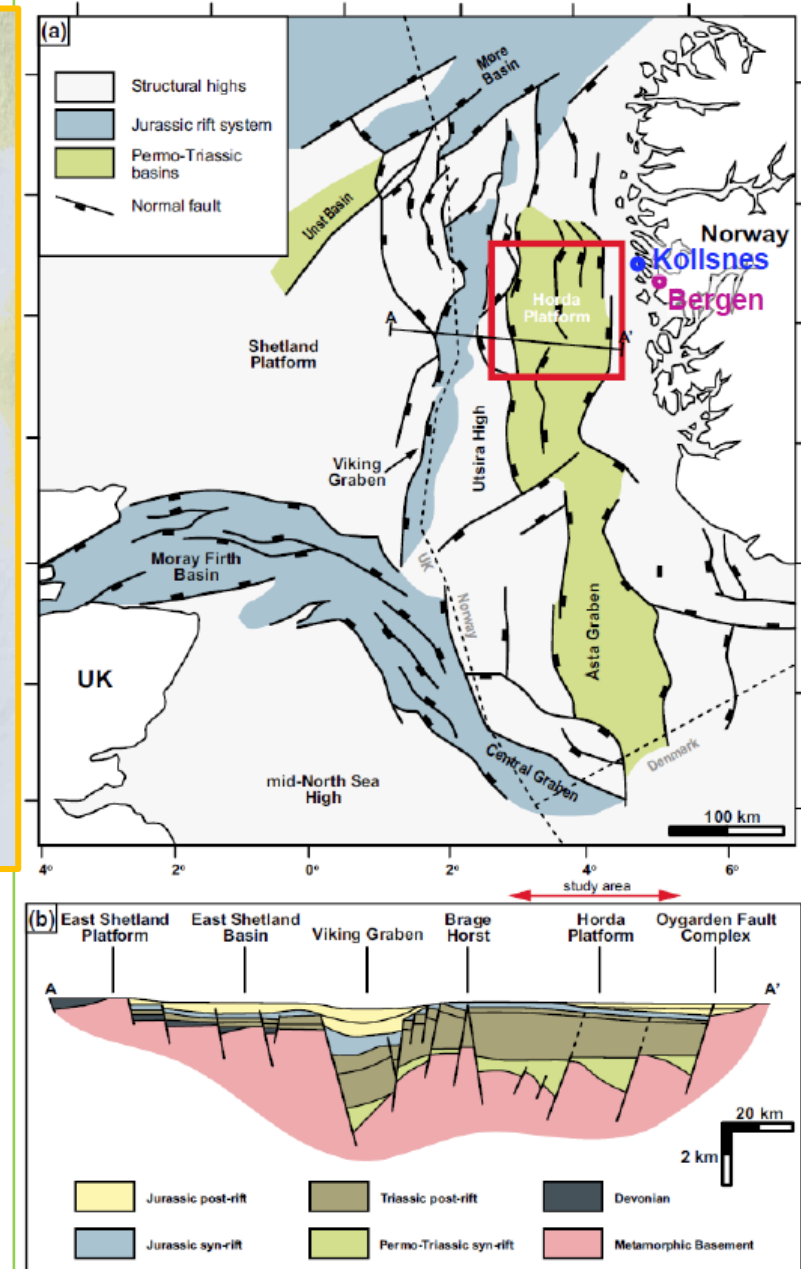
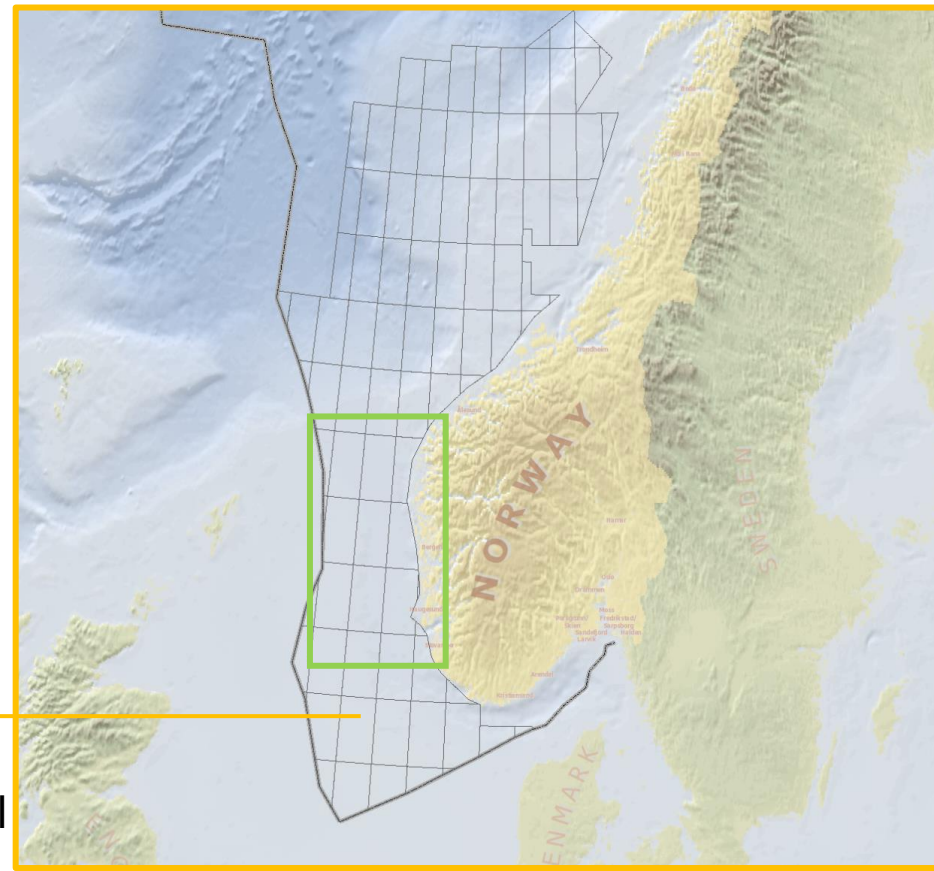


The Full-Scale Project



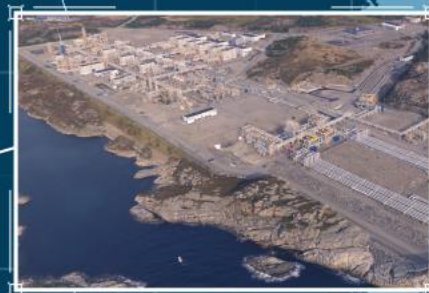
CO₂ storage

- Equinor and its partners Shell and Total are developing the storage concept
- Near Troll field in the North Sea, western part of Norway
- Extra capacity for future CO₂ volumes



Structural framework, Whipp et al., 2014

FULL-SCALE



Infrastructure for Europe





Thank you for your attention

klr@gassnova.no