



NORWEGIAN MINISTRY
OF PETROLEUM AND ENERGY

Carbon Capture and Storage

The Norwegian Perspective

Deputy Director General Tone Skogen

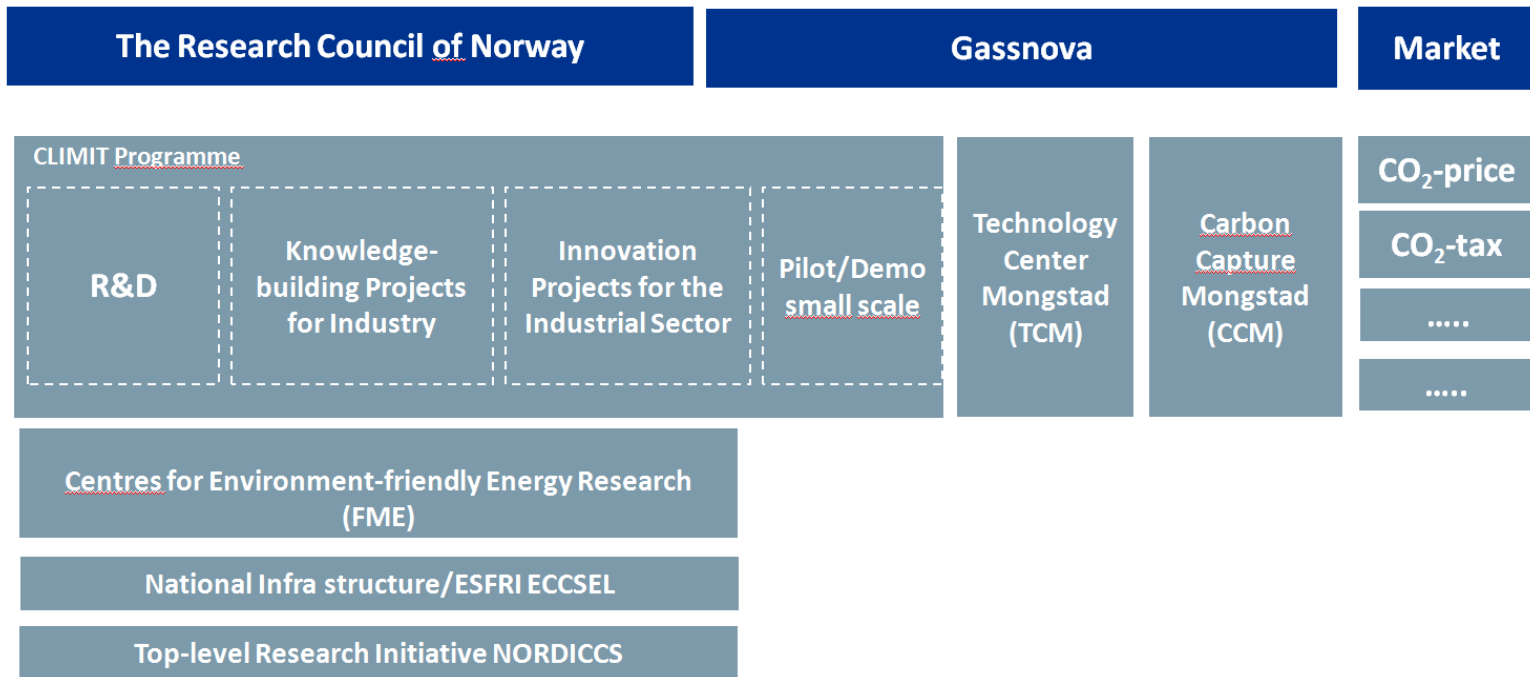
Norwegian CCS Policy

- **The Norwegian Government:**
 - has ambitious goals for broad deployment of CCS,
 - has decided that all new gas fired power plants shall be based on CCS,
 - facilitates R&D on CCS, cooperates closely with industrial actors and provides public funding (CLIMIT).
- **Norwegian projects in operation**
 - Snøhvit (2008) 0.7 mill tonnes stored annually
 - Sleipner (1996) 1 mill. tonnes stored annuallyBoth projects are related to petroleum activities
 - Technology Centre Mongstad (TCM) (CHP gas power and refinery)
- **Norwegian projects under development:**
 - Large Scale Facility Mongstad (CHP gas power)
 - Gudrun



Source NPD

Norwegian CCS instruments

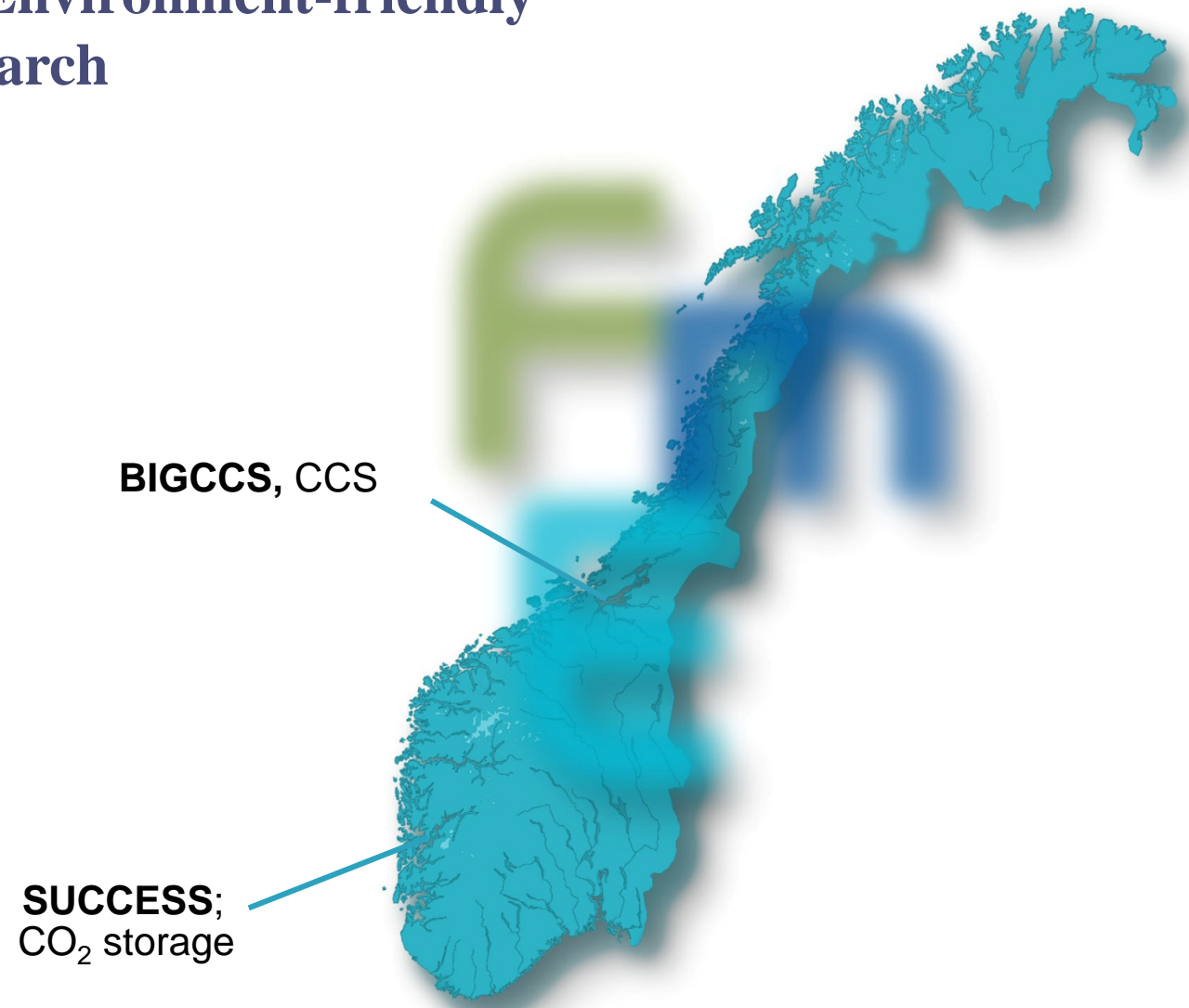


- Ministry of Petroleum and Energy
- Ministry of Education and Research

Climit: A financial instrument for realisation of CCS

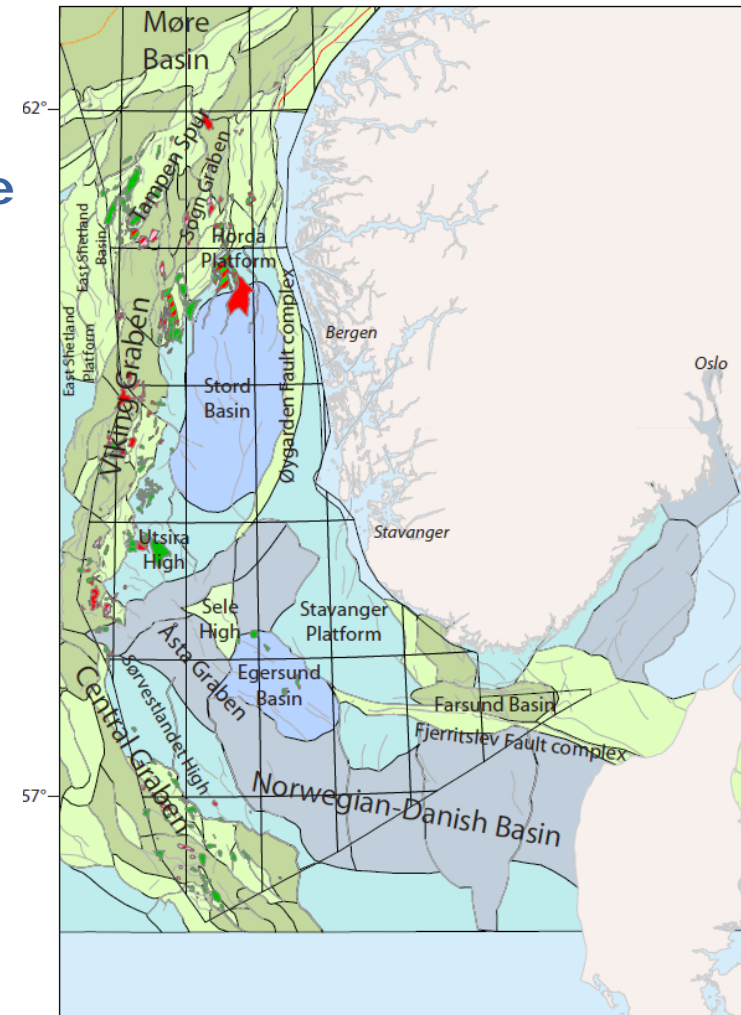
- **The Norwegian RD&D CCS programme**
 - Started 2005
 - About 900 M NOK (125 M euro) in public funding for about 200 projects since 2005
- **Administrated by Gassnova and the Research Council of Norway**
 - CLIMIT consists of 2 sub-programmes: CLIMIT Demonstration and CLIMIT R&D
- **Climit-FoU**
 - Administrated by the Research Council of Norway
 - Funding of R&D
 - Budget 2012: 90 MNOK (12 M euro)
- **Climit-Demo**
 - Administrated by Gassnova
 - Funding of innovative projects, pilots and demonstration activities
 - 82 M NOK (11 M euro) is transferred to the program from public funds each year

Centres for Environment-friendly Energy Research



National Storage Atlas

- The Norwegian Petroleum Directorate has published a CO₂ storage atlas covering the Norwegian part of the North Sea.
- The atlas provides a thorough overview of geological formations suited for storage
- Next step: expand the atlas to cover the Norwegian Sea.
- Such comprehensive mapping and publishing of data by the authorities is important to commercialisation of CCS.



Source NPD

What have we learned?

- Public funding needed to realise first large scale projects
 - Public-private co-operation essential
 - More complex than initially envisaged
 - Storage
 - Public perception
- Knowledge-sharing and international co-operation vital to enhance CCS globally





OLJE- OG ENERGIDEPARTEMENTET

Thank you.