

Interreg Project: Pathways for CCS in the Kattegat/Skagerrak region

The Interreg project with the aim to investigate the opportunities for CSS in the Skagerrak region is now launched. Chalmers is responsible for *work package 3* covering the political, judicial and economical perspectives of CCS in the area.

Border crossing programme

Interreg IV is a border crossing EU-programme geographically concentrated to the regions of Öresund, Kattegat, Skagerrak. The vision of the programme is to make the region more competitive and attractive with comprehensive cooperation in the area and with focus on sustainable development.

Opportunities for CCS in Skagerrak

As a part of the interreg programme, Chalmers University and Gothenburg University will participate in a project investigating the opportunities for CCS in the Skagerrak region. The aim of this project is to:

- Bring forward the knowledge basis for the development of infrastructure for capture, transportation and storage of CO₂ in the region.
- Investigate the technical and economical conditions for CCS in the region
- Identify opportunities and obstacles for CCS in the region and illustrate what roll CCS can play.

Suitable sinks will be identified

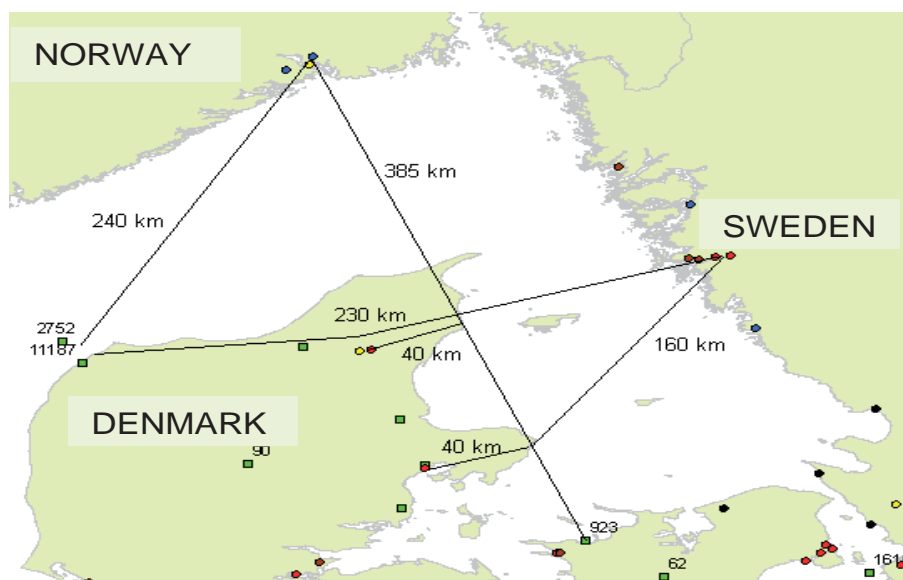
All CO₂ sources above 0,5 Mtonne/year in the region will be included, which are 3 power plants, 3 refineries, 2 cement plants, 1 petrochemical plant, 1 paper & pulp mill, 1 ammonia and 1 ethylene plant. The total emissions from these plants are about 12 Mtonne/year. There are many potential sinks in the region including onshore and offshore aquifers as well as oil and gas fields in the North Sea. A first preliminary survey based on current knowledge suggests that storage in Danish offshore



aquifers seems to be the most appropriate solution, but this will be investigated further in the project.

Carbon leakage and CCS infrastructure will be investigated

The project is divided into four work packages (WP) with Chalmers leading WP 3 which will investigate political, judicial and economical perspectives of CCS in the region. Chalmers will for instance discuss the relevance of using a CO₂ abatement cost, derived from modelling the electricity sector, on the industry sector and the effect of so-called carbon leakage for the industries in the region. Chalmers will also look at capture at some of the industries located in the region and evaluate various CCS infrastructure systems along with other relevant solutions to reduce industry related CO₂ emissions.



The Figure shows relevant CO₂ sources and potential sinks with CO₂ storage potential in Mt CO₂ (green squares) along with distances between some of the sources and sinks. The solid lines are just to indicate typical distances in the region.