

CO₂ storage

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Emission to the atmosphere of greenhouse gases, mainly resulting from combustion of fossil fuels, is considered a major environmental problem. If not resolved, it could impose severe limitations on the potential for growth in developing countries and on maintaining of high standards of living in industrialised countries. UN Climate Conventions in Rio (1992), Kyoto (1997), and Buenos Aires (1998) commit the industrialised countries to reduce rather dramatically emissions of greenhouse gases.

Carbon dioxide is the main greenhouse gas, accounting for around 65%. A technically feasible way of limiting CO₂ emission is storage in deep, saline aquifers.

Saline Aquifer CO₂ Storage (SACS Project)

The SACS project initiated 1998 uses the North Sea Utsira Formation reservoir and its confining rocks as demonstration object for understanding of the migration, transformation and ultimate fate of CO₂ injected into such reservoir. The approach is multidisciplinary involving a. o. reservoir mapping, rock and reservoir fluid geochemical evaluation, reservoir water flow, and CO₂/brine mixing implications. Injection of CO₂ through the Sleipner production platform and sensitivity study to determine the effects of the injection on seismic properties is part of the planned project tasks. A best practice manual for CO₂ storage will be produced,

based on the Sleipner experience and on the generic conclusions of the project.

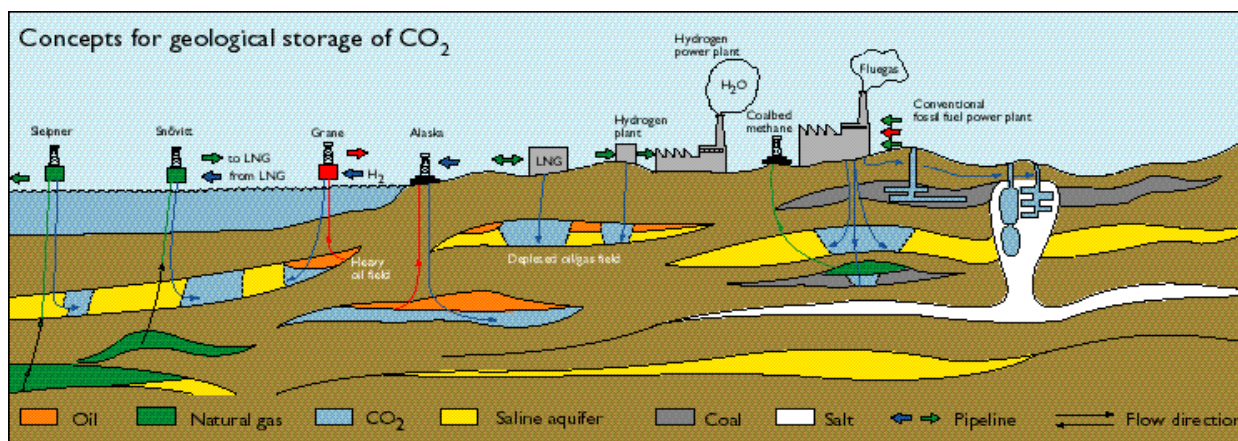
Participants are: Statoil Research Centre, Trondheim (Project Manager); BP Amoco; Norsk Hydro; Exxon Mobil; Saga Petroleum; Vattenfall, Stockholm; Institut Français du Pétrole; SINTEF; The Danish, the British, the Dutch and the French geological surveys.

The project is funded by the EU THERMIE Programme and the participating oil companies.

Geological Storage Of CO₂ From Fossil Fuel Combustion (GESTCO Project)

The objective is – within selected areas of Europe – to map the distribution of thermal CO₂ emission sources and their possible coincidence with the location and quality of geological storage capacity. Through realistic scenarios, CO₂ storage costs will be calculated. The project results could provide the backbone of a future atlas of European geological storage capacity and valuable input for policies.

The project is in the planning phase. Partners include European national geological surveys (from Germany, UK, Belgium, France, Greece, and The Netherlands) and two end-user industries. GEUS will manage the project. EU Funding will be sought.



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