



Geological storage of CO₂

Second birthday of SiteChar European project dedicated to site characterization for CO₂ storage

On January 16th and 17th, 2013, the third General Assembly for the European SiteChar project, dedicated to improving the characterization of sites for the geological storage of CO₂, was held at TNO, Utrecht (The Netherlands). By developing a methodology for the assessment of potential storage sites and the preparation of storage license applications, incorporating all the technical and economic data, as well as the social dimension, SiteChar will provide a valuable tool for the roll-out of geological storage on an industrial scale in Europe.

Coordinated by IFP Energies nouvelles, the project brings together another 16 partners from research and industry, as well as the consultancy sector, from 10 EU countries: AGH, ECN, ENEL, GEUS, GFZ, IMPERIAL, NERC, OGS, PGNiG, Statoil, TNO, SINTEF-PR, UniRoma1-CERI, UfU, Vattenfall and the Scottish Government. The SiteChar project is also supported by Veolia Environnement and Gassnova. Launched in January 2011 and scheduled to last 3 years, the SiteChar project has a total budget of €5 million, €3.7 million of which is a European Commission grant.

SiteChar examines the entire site characterization chain, from the initial feasibility studies through to the final stage of application for a storage license, on the basis of criteria defined by the relevant European legislation: storage capacities, modeling of aquifers at basin or reservoir scale, injection scenarios, risk assessment, development of the site monitoring plan, technical and economic analysis (assessment of all the costs related to storage), public awareness, etc.

The research focus on 5 potential European storage sites, representative of the various geological contexts, as test sites for the research work: a North Sea offshore multistorage site (hydrocarbon field and aquifer) in Scotland, an onshore aquifer in Denmark, an onshore gas field in Poland, an offshore aquifer in Norway and, finally, an aquifer in the Southern Adriatic Sea. At the Danish and Scottish sites the studies have developed dry-run license application which will be evaluated by a group of independent experts. The studies conducted at the other sites will make it possible to overcome specific barriers related to the site characterization methodology.

In addition to technical problems, SiteChar considers the important aspect of the public awareness and public opinions of these new technologies. The assessment of current public knowledge, perceptions regarding the storage of CO₂ has already been achieved on the Polish and Scottish sites and site-specific public engagement activities have been assessed in 2012 via the internet, information meetings and a specific workshop held in December 2012.

Entering the last year of the project, the SiteChar consortium is now working on the elaboration of a methodological guide adapted to each of these specific geological contexts for use by storage site operators and regulatory bodies.