

Newsletter from the SUCCESS centre – August 2012 – no. 3

**SUCCESS infrastructure:
Profiling the northern seafloor**

In July, the new **EdgeTech 2000 CSS** combined chirp sub-bottom profiler and side-scan sonar system, funded by the Research Council of Norway through the FME SUCCESS, arrived at the UNIS CO₂Lab in Longyearbyen. This system will be used to acquire high-resolution acoustic data from the seafloor surface, as well as to study the subsurface sediment structure in the fjords surrounding the planned Longyearbyen CO₂ storage reservoir.

Already the first test survey aboard UNIS' small research vessel *Viking Explorer* proved successful, revealing clusters of small, previously unknown, pockmark-like depressions on the seabed. Together with another state-of-the-art acoustic instrument recently installed on *Viking Explorer*, a **Kongsberg EM2040** multibeam echosounder funded by ConocoPhillips for a related research project investigating natural hydrocarbon seeps in the fjords of Svalbard and on the continental shelf of the northern Barents Sea, the new instrument will provide a full picture of the current state of the marine environment.



Surveys in several key areas are being planned for summer 2013 in order to establish a baseline that will be used for studying the future effects of geological CO₂ storage on the subsea, seafloor and subsurface geological, geophysical, geochemical and biological processes in the polar and permafrost environments. These data are potentially beneficial also for other SUCCESS work packages and would be freely available to anyone interested.

Riko Noormets

Vacant position

A temporary research position is available at Christian Michelsen Research in Bergen for a period of two years, affiliated with the project *Virtual CO₂ Laboratory (VIRCOLA)*.

We are looking for a person with expertise in Geosciences on a PhD level, preferably with background

relevant for CO₂ storage in the subsurface, and with an interest to work with dataset from micro to macro-scale. Wide deployment of geological CO₂ storage requires better understanding of CO₂ storage reservoirs, CO₂ injection and flow, and long-term fate of geologically stored CO₂.

The VIRCOLA project aims to explore the potential for covizualization and visual analysis of multimodal and multiscale subsurface and experimental data from operational and research field pilots at Snøhvit and Longyearbyen.

Deadline August 31st, 2012.

<http://fme-success.no/index.cfm?id=381726>

SUCCESS fall conference

This year's fall conference will be in downtown Oslo **October 22–23**. This is primarily a gathering for members of the SUCCESS community (research and industry partners), but a session of keynote talks before lunch Monday will also be open for other interested parties.

Speakers will be Nick Riley of British Geological Survey, Stuart Haszeldine of Scottish Power, Egil Meisingset of the Norwegian Ministry of Petroleum and Energy and our own SUCCESS head, Arvid Nøttvedt. Check <http://fme-success.no/index.cfm?id=379917> for more info.

Brief news

- **Longyearbyen CO2Lab International Workshop** will take place September 17–20. Check <http://co2-ccs.unis.no>. SUCCESS will stage a board meeting in connection with the workshop.
- The annual **Transatlantic Science Week** this year takes place in Houston, Texas November 12–16. One of the topics is Energy, and as usual SUCCESS aims at being present.
- **The 11th Greenhouse Gas Control Technologies (GHGT) conference** is scheduled in Kyoto, Japan the week after. So far we know around half a dozen SUCCESSers being there.

Evaluation jump

This winter the Research Council will perform **midlife evaluations** of all the CEERs. At SUCCESS we take this as an excellent opportunity to analyze how far we have come and what needs to be done for us to become the top-notch integrated research centre we aim to be. This week the work package leaders gathered for an evaluation kick-off, and the picture shows them jumping into the pool of self-insight.



Left to right: Helge Hellevang (WP 1), Ivar Aavatsmark (WP 2), Marion Børresen (WP 4), Therese Flaathen Loe (WP 7), Omar Abdiraman (WP 5), Magnus Wangen (WP 6), Harald Johansen (WP 3) and Arvid Nøttvedt (centre manager).

New Ph.D-student

Rohaldin Miri has just started his work at UiO as a Ph.D on WP 6 INJECT. Rohaldin has master degrees from PUT in Teheran and from Calgary. In this work he focused on the mathematical modeling of fluid interaction of overwhelmed



matrix blocks of fractured reservoirs. He has worked as a petroleum engineer in Ahwaz, Iran, conducting several core-flooding experiments to investigate the asphaltene deposition phenomenon during natural depletion and CO₂ injection and the consequent effects on hydraulic conductivity.

Rohaldin currently works on a mathematical modeling and simulation study of injectivity of CO₂ in deep aquifers considering precipitation of slat and geotechnical effects. We wish him very welcome to the SUCCESS team.

In our next newsletter:

SUCCESS in China

Be sure to be on our mailing list (see bottom of page)

SUCCESS (Subsurface CO₂ Storage – Critical Elements and Superior Strategy) is one of several Norwegian centres for environment-friendly energy research, funded by the Norwegian Research Council and industry partners. For more info and contact address: www.fme-success.no.

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