



European Carbon Dioxide Capture and Storage Laboratory Infrastructure

**ENABLING LOW TO ZERO CO₂ EMISSIONS FROM INDUSTRY AND POWER GENERATION...
TO HELP COMBATING GLOBAL CLIMATE CHANGE**

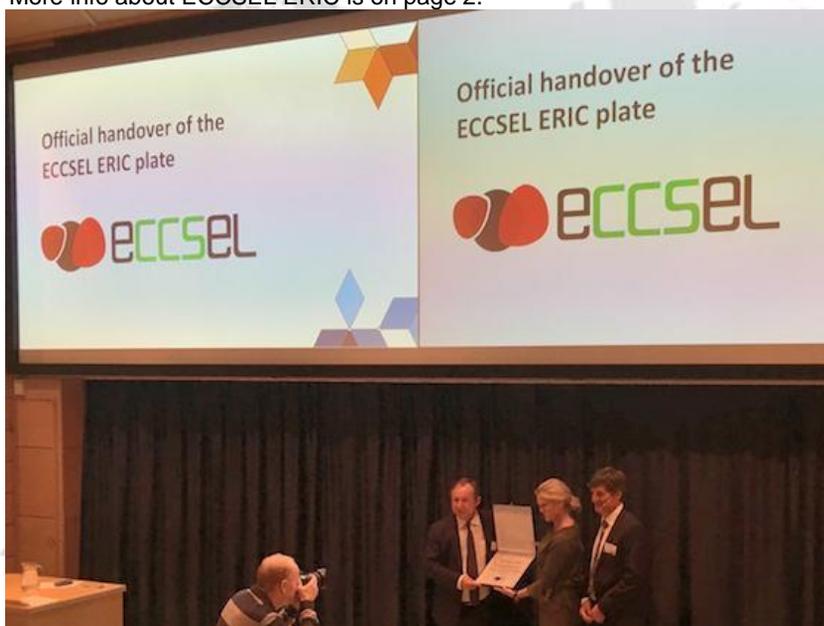
NEWSFLASH

ECCSEL ERIC is a reality!

After a challenging process, ECCSEL has been finally established as a **European Research Infrastructure Consortium (ERIC)**. From now on, ECCSEL ERIC will further develop its world-class distributed research infrastructure to facilitate superior experimental research on new and improved CO₂ capture, transport and storage techniques (CCS). Developed and implemented with support from the European Union's FP7 and Horizon 2020 programmes combined with partner countries contributions, ECCSEL ERIC entered the ESFRI Roadmap in 2008 and is now undergoing the ESFRI Landmark review.

France, Italy, the Netherlands, Norway and the United Kingdom are the founding members of ECCSEL ERIC, whose Operations Centre is located in Norway. The expectations are that more countries will be joining the infrastructure in the near future.

More info about ECCSEL ERIC is on page 2.



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ECCSEL ERIC is a reality!

It was quite a complex process, but finally ECCSEL has been established as a European Research Infrastructure Consortium (ERIC). The formal inauguration ceremony to present the new ECCSEL ERIC Consortium took place 12th June 2017 in Trondheim (Norway), as part of the event "Trondheim – building the foundation for the green transition" which included three celebrations in one:

- a European project becoming an ERIC (ECCSEL),
- new/refurbished laboratories,
- and the 100th anniversary of Norwegian University of Science and Technology (NTNU) hydropower lab.

Attended by relevant representatives of academia, research, industry and public authorities, the recognition of the new ECCSEL status was introduced and recognized as one of the main achievements in order to move forward with CCS

technologies, to contribute to the targets of the Paris Agreement and to pave the way to the green energy transition.

France, Italy, the Netherlands, Norway and the United Kingdom are the founding members of this ECCSEL ERIC, the first ERIC to be set up in the energy sector. The Operations Centre will be located in Trondheim, meaning that Norway will be also acting as the host country from where more than 50 laboratories in five European countries will be coordinated. In the near future more countries are expected to join this new European Research Infrastructure Consortium.

Now that ECCSEL ERIC has been established, it will further develop a world-class distributed research infrastructure to facilitate superior experimental research on new and improved CO₂ capture, transport and storage techniques (CCS).

"This celebration affirms two important facts that international collaboration and investment in research and innovation are the recipe for meeting the targets set by the Paris Agreement and implementing the green transition"

Gunnar Bovim, NTNU Rector

Vision ECCSEL ERIC :

Enable low to zero CO₂ emissions from industry and power generation

ECCSEL ERIC has been developed and implemented with support from the EU FP7 and Horizon 2020 programmes in a series of three preparatory projects. Having also entered the ESFRI Roadmap in 2008, it is now undergoing the ESFRI Landmark review.



[From left to right] ECCSEL ERIC was introduced in the presence of Wolfgang Burtscher, Deputy Director General of the European Commission's Directorate General for Research and Innovation who presented the ERIC plaque to State Secretary Ingvil Smines Tybring-Gjedde, Norwegian Ministry of Petroleum and Energy and Sverre Quale Director ECCSEL ERIC and project director ECCSEL H2020 Infradev-3.



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ECCSEL ERIC, looking in the future

Now where ECCSEL ERIC has been set up and close to the end of the 3rd phase of the ECCSEL implementation project, ECCSEL ERIC shall coordinate the use of the research facilities in the distributed infrastructure and coordinate plans for their upgrade and new investments.

Within this framework, ECCSEL ERIC shall assure the international open access to the infrastructure and, furthermore, within its means and competence support the owners of the research facilities in their endeavours to enhance the operations of their facilities and their endeavours to upgrade them and to build new facilities.

Consistent with the European Commission and the European Strategy Forum on Research Infrastructures (ESFRI), and as an European Research Infrastructure, ECCSEL shall comprise facilities, resources or services of a unique nature to be used by pan-European (and non European) scientific communities to conduct top-level research.

“Climate change technologies are being rolled out faster than ever. Such technologies can create jobs and are crucial if we are to meet our climate change targets”.

*Alexandra Bech Gjørvi,
SINTEF CEO*

ECCSEL ERIC shall make facilities required for conducting research in priority areas available to the international research community. This will contribute to pushing the forefront of technological development beyond the current state-of-the-art, accelerating the commercialisation & deployment of CCS. In the future the member countries will decide on the areas of extension of the ECCSEL ERIC activities towards utilisation of CO₂ (CCUS) beyond enhanced oil recovery (EOR).

12th June 2017 around 25 representatives from 5 countries meet at NTNU offices in Trondheim for the 1st ECCSEL ERIC General Assembly & kick-off.

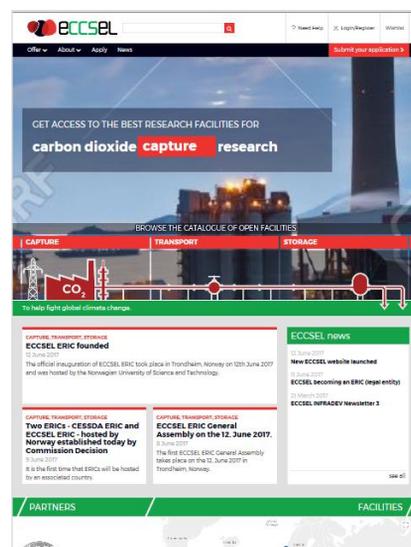
Welcome to the new ECCSEL website

In ECCSEL we are pleased to announce the launch of our new website! It has taken months of hard work and dedication to improve the web from the point of view of content but also of the user experience.

Conscious that the website is our best communication tool to all of you, our goal with this new website is to provide a user-friendly experience with the latest information about the ECCSEL ERIC and the opportunities that are offered to the research community.

Events and news can now be seen on the first page for easy reading, as well as search tool for finding specific facilities bring part of the Transnational Access Programme as well as those being part of the ECCSEL Research Infrastructure. Also, comprehensive details of the installations with publications, technical datasheets and contacts can be easily found.

We hope you like the fresh look, easy access to information and invite you to find out what has changed on the new ECCSEL website.



AGENDA

5 – 8 September 2017

IEAGHG

**4th Post Combustion
Capture Conference**

Birmingham , Alabama (USA)

www.ieaghg.org/education/summer-school/52-conferences/pccc

11 – 12 September 2017

UKCCSRC

Autumn 2017 Biannual

Sheffield (UK)

<https://ukccsrc.ac.uk/news-events/events/ukccsrc-autumn-2017-biannual-sheffield>

18 – 19 October 2017

**9th Carbon Dioxide
Utilisation Summit**

Reykjavík (Iceland)

wplgroup.com/aci/event/co2/

19 – 22 March 2018

**Carbon Capture,
Utilization & Storage
Conference 2018**

Nashville (USA)

<http://2018.ccusconference.com/>

CCS News: New comprehensive TCM test campaign launched

A new test campaign, named MEA-3, started at TCM in June, containing a number of sub-projects focusing on CO₂ capture, emissions to air and model predictive controlled operations.



The sub-project on model predictive control (MPC) (also known as modern or advanced process control) is a CLIMIT Demo project with Cybernetica, Sintef and NTNU. Test activities for this sub-project started on June 12th. "TCM has long worked to reduce the cost of carbon capture. This project will contribute further to this, by automating more of the operations", says Managing director Roy Vardheim.

Plant automation is based on model predictive control, commonly used in other industries such as oil refining and petrochemicals. MPC is an overarching control system that can read plant data and calculate the optimum set point to several regulators simultaneously. The MPC technology to be used in this project was developed by Cybernetica.

NTNU, SINTEF and Cybernetica will assist with the practical implementation at Tiller and TCM. The dynamic process model that becomes part of the tool has been developed in the doctoral thesis of Nina Enaasen Flø now working for TCM.

Complete article in www.tcmda.com

ASK ECCSEL

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ECCSEL partners

