



About ECCSEL ERIC

ECCSEL ERIC (ECCSEL) is a distributed, integrated European research infrastructure made up of interlinked scientific facilities, national nodes and industry. ECCSEL offers open access to over 90 world class CCUS research facilities across Europe. Research facilities covering the entire CCUS value chain include membrane separation units, integrated CCUS systems, pressure and injection equipment, measurement devices to track CO₂ migration, and study CO₂ pipeline transport and integrity as well as shipping, smart integrated systems for carbon capture and conversion into valuable products and essential soft- and hardware to support security and troubleshooting. ECCSEL also coordinates the development of European facilities and services to meet identified research needs in CCUS, support technology development and accelerate technology deployment from proof of concept to fully proven industrial applications.

About the workshop

ECCSEL reaches out to research communities and industrial stakeholders to determine their research focus and research infrastructure needs to enable full-scale CCUS deployment in Europe.

ECCSEL is extending our scope by inclusion and integration of additional aligned scientific and technological capabilities from the energy domain, where there is currently no coordinated research infrastructure. Specifically, this will include sustainable subsurface energy systems that are closely aligned to, or have synergies with, CCUS and support the circular economy and circularity of energy supply.

ECCSEL has recently updated the key anticipated research needs and services across the CCUS value chain, and improved our services via:

- Diversify access to ECCSEL facilities in the progress to include remote and virtual modes, and access to modelling facilities, digitalisation and digital twins, applications, data, and other resources
- Training, professional development and staff exchange opportunities will also be developed

This interactive workshop will focus on refining and prioritising these research needs and services from the perspective of the workshop's industry and research community participants.

The outcomes will be used to shape ECCSEL and provide the framework to underpin new research infrastructure investment by ECCSEL for the CCUS community in Europe.

Workshop host and facilitators



*Galina Skorikova
(host)*



*Sverre Quale
(Director ECCSEL ERIC)*



*Robert de Kler
(ECCSEL ERIC staff)*



*Helen Taylor-Curran
(ECCSEL ERIC staff)*



*Yessica Arellano
(ECCSEL ERIC staff)*

Agenda and venue

Venue: Hotel Scandic Nidelven, Trondheim, Norway

Time and date: 14.00 – 17.00, 19 June 2023

Welcome and introduction to ECCSEL ERIC (15 min)

Speaker: *Sverre Quale*

Mentimeter setup and quiz

ECCSEL ERIC new service model for the industry (35 min)

Speaker: *Robert de Kler*

The ECCSEL ERIC services model has been designed to support the needs of industry to accelerate the implementation of CCUS. As such a tailor-made portfolio of research and technology development services for CCUS gaps been established to facilitate industrial engagement (including SMEs).



This presentation will focus more on improved services model ECCSEL.

- Diversifying access (virtual mode and remote access)
- Wider scope from the energy domain (sustainability and circularity)
- Knowledge development and staff exchange

Coffee Break (30 min)

Mentimeter - Services of ECCSEL ERIC

Research priorities, knowledge gaps, and research infrastructure (35 min)

Speakers: *Helen Taylor-Curran, Robert de Kler, Yessica Arellano*

Industrial stakeholders were invited to provide input on the key technological priorities. In conjunction with the facility owners and input from the industrial engagement the update of the key CCUS technological priorities will be presented. We would like participant perspectives on how we should prioritise these to best serve the needs of industry in implementing CCUS.

Interactive session on the extension of services and research priorities (25 min)

Moderator: *Galina Skorikova*

The interactive workshop session will be held to discuss and fine tune the envisaged services model and research priorities. The following key items to address during the workshop session are:

- The services model
- Diversifying access
- Wider scope
- The research priorities, needs and knowledge gaps
- The potential extension of scope (technical)

Rapporteurs from the two sessions – Robert de Kler, Helen Taylor-Curran, Yessica Arellano