



# FORCE Christmas Newsletter 2021

# Secretariat summary of 2021

2021 has proven to be an amazing year for FORCE. We are still affected by the pandemic, but once again, the network groups have risen to the occasion.


With 32 webinars, 2 lunch & learns and 1 seminar, the number of attendees came up to 2836!

We are so proud of all of our members and the incredible job they have done in 2021. We would like to highlight the 2-day webinar Fault Compartments from the Structural Geology group with 237 participants. In addition, the Sed/Strat group held the first 3-day webinar with Mind the Gap and was proven to be very successful. They also organized the virtual field trip with Andrew Hurst from the University of Aberdeen. Great work!

The network group, Improved EOR/IOR competence, held an impressive 5 webinars in 2021.

All we can say is «keep up the great work».





We got a new TC in 2021, Energy Efficiency & Environment (EEE). Their goal is to utilize the unique collaborative nature of FORCE to further improve our ability to meet the climate challenge and be part of the solution towards a greener future.

Ola Terjeson Miljeteig from Equinor and Georgios.Samouilidis from Shell was chosen as chair and vice chair.

Three network groups has been created:

- Carbon Capture and Storage
- Energy Efficient and subsurface
- Low Emission Facilities and Environment

We look forward to seeing the new network groups in action in 2022.

FORCE wishes the new TC and the network groups the very best.

# Greeting from Christina & Samee from CCS

- 2020 was a special year! The world was challenged from more pandemic waves but also from climate change consequences. On the bright side, it was also the year that we saw politicians around the world to step up on their commitment for zero carbon with announced plans until 2030 and 2050. FORCE responded to all of this with their own commitment to the climate change targets by launching, in September, the FORCE CCS Network group!
- The FORCE CCS Network group might be small and very young, but thanks to our hard-working members, we managed to organize a series of 3 lunch & learn webinars in Q4/2021 and Q1/2022. We also engaged with Technology Centre Mongstad, TCM, on the possibility to organize a carbon capture workshop at their facilities in Q1/2022. TCMs management embraced the idea and they decided to in-kind offer their facilities, personnel, and catering, for the event. The event is scheduled for 15<sup>th</sup> of February 2022 and it is already advertised at the different FORCE Network groups.
- Our goal for next year is to determine our purpose, define the strategic targets and follow up with a solid plan of various activities (webinars, seminars, site visits etc) that successfully cruising towards our targets.
- Christina Martavaltzi & Samee Brough



# Greetings from Claire and Joining Forces

Joining Forces has been an initiative to bring academia, research institutions and industry together to enhance communication and collaboration by means of organizing events

(in 2013, 2016 and 2018).


Unfortunately, due to the pandemic we have not been able to hold the seminar that was planned for March 2020 and since then we have decided to wait and see how the situation would develop

as we feel it is very important to hold this as a physical meeting.

This autumn in the MC we agreed to revive the effort and kick-off the planning for a potential 2-day event at the NPD premises for end of Q1/early Q2 2022. Of course, the uncertainty around big events remains, so a back-up plan will be part of the organizing committee's tasks.

We will have an initial planning meeting on the 9th of December with the Joining Forces project members to agree on the theme, program and date, so at the moment I can't share many details yet 😊





The last 2 years a lot has happened in our industry and this year with COP26, the new OG21 strategy and the elections the energy transition debate has accelerated including the push for R&D and cooperation. At the recent NCS Exploration Strategy conference for example it was striking to hear the similarities between many companies' strategies with focus on energy efficiency, sustainable value from O&G activities and transitioning to green energy products

And there was also agreement amongst all parties that we need to collaborate even more to meet the challenges of the future. Universities, research institutions and companies are actively discussing the competencies needed for the future, many of the competencies our industry has are transferable and some areas are new and therefore need focus in both research and the education system.

A purposeful and exciting challenge that we can contribute to and definitely enough food for thought for the project team to create an inspiring and relevant program for the event with contributions from industry partners, academia and research institutions.

On behalf of the Joining Forces project group, I would like to wish you a very merry Christmas and a Happy New Year.

Claire Richardson-Dissel (A/S Norske Shell)

# Saeed Fallah – Improve EOR/IOR Competence

2021 has been a successful year for the «IOR/EOR competence network group» even though we did not have any physical seminars and workshops due to pandemic. We started a year with a series of webinars focusing on latest developments on Water Alternating Gas (WAG) method. In addition, we had one webinar on polymer rheology with interesting results from field trials.

And last but not the least, we arranged a webinar about water shut-off techniques on a mature field.

Thanks to all the members of the group, in total we hosted five webinars in 2021 that was beyond our target for this year. Next year, we continue to arrange events and if the situation allows, we hope to have a physical seminar in the third quarter.

On behalf of the competence network group, I would like to thank all the speakers, those who arranged the events, and everybody who attended. Special thanks goes to Force and its secretariat for facilitating the events.

« For my ally is the Force, and a powerful ally it is».  
We wish everyone a merry Christmas and a happy new year.  
«May the Force be with you» all.

Best Wishes, Saeed



# Seminars and Webinars 2021 January - June

- 27.01 Webinar: Upscaling of Near-Miscible WAG in Heterogeneous Reservoirs
- 28.01 Webinar: Microbial life in small water droplets enclosed in oil
- 11.02 Webinar: Summary and results from the Force 2020 Machine Learning Contest
- 17.02 Webinar: Immiscible WAG modelling
- 18.02 Webinar: How can we deliver 4000 m MD wells in 10 days on NCS?
- 16.03 Webinar: Let's learn to treat our faults better
- 24.03 Webinar: Recent Development of Near Miscible WAG
- 08.04 Webinar: Well Clean-up and Well Test to Production Facility
- 09.04 Webinar: Mind the Gap #1
- 14-15.04 Webinar: Fault Compartments
- 16.04 Webinar: Mind the Gap #2
- 23.04 Webinar: Mind the Gap #3
- 28.04 Webinar: Post Force competition Symposium, where the contestants will showcase their working methods and results
- 30.04 Webinar: Mind the Gap #4
- 20.05 Webinar: Understanding in-situ polymer rheology from laboratory studies
- 01.06 Webinar: Workflows for Handling Uncertainty: Are ensembles really the answer?
- 11.06 Webinar: Improved understanding of seepage in and around well locations
- 24.06 Webinar: Variability in the geometry of segmented normal fault surfaces
- 30.06 Webinar: Along-strike stratigraphic response to normal fault growth: sediment sources, stacking and surfaces





# Seminars and Webinars 2021 August - December

- 17.08 Webinar: Injectites Virtual Field Trip
- 21.09 Webinar: Water shut-off via bullheading a DPR fluid – General status and the Alvhheim example
- 23.09 Webinar: Interrelation between surface and basement heat flow in sedimentary basins
- 20.10 L&L: Retrofit MLT – cost effective improved recovery
- 22.10 Webinar: Ephemeral fluvial systems – application to Triassic and Permian reservoirs in the North Sea
- 25.10 Webinar: Dual Seminars on Full Waveform Inversion #1
- 28.10 Webinar: Regional Structure and Basin Development of the mid-Norwegian Volcanic Passive Margin
- 26-28.10 Webinar: Multiproxy biostratigraphy: Recent and future advances in the application and technologies
- 28.10 Webinar: Regional Structure and Basin Development of the mid-Norwegian Volcanic Passive Margin
- 01.11 Webinar: Dual Seminars on Full Waveform Inversion: Impressions of FWI #2
- 16.11 Lunch & Learn: Integrated geomodelling for construction and civil engineering projects
- 17-18.11 Ichnology of Petroleum Systems
- 23.11 Webinar: Structural characterization and across-fault seal assessment of the Aurora CO2 storage site, northern North Sea
- 02.12 Webinar: Evolution of Vitrinite Reflectance Models
- 07.12 Webinar: Overview of subsurface research activities for carbon storage on the NCS





Merry Christmas  
and  
Happy New Year!

From the Secretariat  
Eva Halland  
Linn Smerud  
Tone Helene Mydland  
Janka Rom  
Eli Jens Høgnesen  
Aslaug Janssen