7. Petroleum geology and geophysics

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The Northwest European Continental Shelf, including the Danish and Norwegian shelves, remains a prolific hydrocarbon region despite its ageing and maturing state. Due to the wealth of data acquired over the 50+ years of hydrocarbon exploration and exploitation activities, it provides a world-class laboratory for advancing our understanding of hydrocarbon plays and petroleum systems in a wide range of tectonic settings: from the North Sea rifts and intra-cratonic basins via the Norwegian-Greenland Sea passive margin to the NE Greenland Shelf–Barents Sea transfer margins, vast platform areas and compressional/transpressional basins.

Hydrocarbon plays and reservoirs range in age from Devonian to Pliocene, and vary from alluvial fans to deep-water fans formed in almost any climatic setting, from arid through humid to glacial. Petroleum systems are equally rich, varied and plentiful, and include Carboniferous, Triassic and Jurassic coals to Permian, Triassic, Jurassic and Cretaceous marine claystones including the world-class Upper Jurassic source rocks.

This session will cover all aspects of subsurface-related petroleum geology and geophysical studies, from basin-scale/regional evaluations and play and petroleum systems’ updates, via semi-regional or area studies to more local or focused prospect/discovery and field evaluations including geomodelling. The aim is to present both fully integrated as well as discipline-specific, such as structural, sedimentological or source-rock focused, basin/area/field evaluations and analogue studies, to quantitative geophysical lithology and fluid predictions.

Demonstration of new technologies, new understanding fuelled by new and improved data, and new workflows or ways-of-working as well as new study areas, are especially encouraged. CO2 storage is a current topic encompassing capture, storage, transport and building new infrastructure. We want to cover reservoir, sealing, CO2-injection, modelling and monitoring of the CO2 plume.