




Newsletter

Project information

It has been a busy year for the MOET project. Our stakeholder list continues to expand - thank you to all those who are actively introducing the project to your colleagues and networks. We will continue to keep you all updated through these two-monthly newsletters and continued engagement following suggestions made at our recent face to face stakeholder workshop.

 *Wishing you all a very Merry Christmas, from the MOET project team!* 

Meetings and engagement activities

We were delighted to welcome so many of you to our first in-person stakeholder workshop on 23rd November. Thank you all so much for giving your time to help us shape the project. We are still collating the input you kindly provided and expect to be able to circulate some more information on that before we all break for Christmas.

The following stakeholders joined us for the meeting: Centrica, National Gas, UK Hydrographic Office, Storegga, Department for Energy Security and Net Zero, The Crown Estate, Environment Agency, Marine and Coastguard Authority, BP, International Energy Agency Greenhouse Gas R&D Programme, Centre for Environment, Fisheries and Aquaculture Science, Perenco, MarineSpace Ltd, ERM, Natural England, Atkins Realis, North Sea Transition Authority, Wintershall Dea, National Physical Laboratory, Synergia Energy Ltd, Equinor.

Topics of discussion included the need for: a coordinated approach to regulation, consenting and licensing of CO₂ and H₂; availability and integration of different types of spatial data; a joined up approach by different actors/operators; a common space for sharing of information and knowledge; a greater awareness of technical barriers to gas storage, pressure connections and potential interactions; co-location and co-existence of different infrastructures and technologies; environmental impacts and cumulative effects on the marine environment and offshore ecosystem services; techno-economics of offshore energy storage, particularly offshore salt caverns; and a greater understanding of the role and influence of public perceptions.

Work Package 1 update - Optimal use of subsurface geological resources for storage of H₂ and CO₂

Researchers are now planning presentation of outputs from the mapping, modelling and laboratory experimental work in the southern North Sea study area;

- Journal papers on: Bunter Sandstone compartmentalisation, reservoir architecture and sedimentology, and geomechanical stability; rock physics experimental results; mapping of H₂ storage in new salt caverns, H₂ storage and CO₂ storage in porous strata.
- Database tool for UK porous rock suitability for H₂ storage
- Identification of areas for H₂ and CO₂ storage to inform of communities to assess societal concerns & perspectives.

Work Package 2 update - Understanding the shallow subsurface, seeps and the marine environment

We have released seabed geology mapping for offshore Yorkshire, which sits within the Southern North Sea case study area. Next planned release, pre-Christmas, are seabed map products in the areas offshore East Anglia. The mapping and products are described here: <https://www.bgs.ac.uk/datasets/bgs-seabed-geology/> and

<https://geoscientist.online/sections/features/land-below-sea-a-new-generation-of-seabed-geology-mapping/>

We are analysing the results of model simulations that estimate the biological impact of multiple wind pylons via the provision of colonisable surfaces. For gas storage the model has now been developed to simulate any combination of H₂, CH₄, CO₂ or brine release.

Work Package 3 update - Societal consequences of the energy transition

The next tasks for the science work in MOET is to develop a small number of realistic scenarios of offshore energy technology. These are expected to take the form of infographics and/or vignettes and will be used to elicit and compare perceptions in our social survey. We will be approaching stakeholders and invite them to co-develop and 'sense check' the scenarios in due course but if you are keen to be involved in this please get in touch egt@pml.ac.uk.

Project management team

Jim White – Principal Investigator (BGS)

Maxine Akhurst – WP1 lead (BGS)

Jerry Blackford – WP2 lead and PML Principal Investigator (PML)

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Hazel Napier – WP4 lead (BGS)

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