

## Socio-Oceanography Workshop 2024 SESSION 4 DESCRIPTION

Navigating Coastal Change: Inclusive Decision-Making Through Technology Enabled Open Science (Leads: Dr. Christine Sams, NOC; and Prof. Ashley Hall, Royal College of Arts)

Coastal communities living in flood-prone or erosion-vulnerable areas confront critical decisions as rising sea levels reshape the hazards they face, rendering traditional coastal protection measures economically unfeasible. In democratic systems where flood risk responsibilities are decentralised, and local authorities play a pivotal role in implementing national policies, the potential for conflicts of interest, delays, and heightened adaptation costs are high. In such a landscape, fostering a sense of 'coastal stewardship' is of utmost importance.

In our dynamic and challenging world, there is a pressing need to transform public attitudes and cultivate a stronger connection between communities and 'their' ocean. As sea levels and coastal risks evolve, engaging the public in a deep and meaningful way becomes paramount. How can we empower coastal communities not only to comprehend and be inspired by the oceans but also to equip them with the capacity to make challenging decisions? Drawing inspiration from successful public engagement and participation efforts in land-based biodiversity conservation, and leveraging innovative technologies and big data, can we take ocean literacy to the next level?

This session will explore whether the recent surge in the development and manufacturing of low-cost sensors, capable of locally monitoring water levels, wave heights, beach, and intertidal morphology, could serve as a vehicle for advancing open science and reshaping public attitudes. Led by scientists from the National Oceanography Centre and the Royal College of Arts, this session will utilise 'design thinking' to scope ideas, concepts, and approaches for new pathways to strengthen the bond between people and their coast, and, consequently, shape the future of coastal stewardship. We will collaborate towards the creation of an opinion paper that explores the opportunity and pathways to realising this vision.