

Mareano – A unique seabed mapping program

Side event at Our Ocean 2019

Time: 24 October, 07.30 – 08.30

Location: Radisson Blu Plaza Hotel (4 min walk from Clarion Hotel The Hub)
Sonia Henies plass 3
Meeting room: Plaza Panorama Holmenkollen

Featured speakers

- Cecilie von Quillfeldt, *Norwegian Polar Institute*
- Terje Thorsnes, *Geological Survey of Norway*
- Peter Haugan, *Institute of Marine Research, Norway*

Themes and event layout

A holistic understanding of the oceans as part of the Earth system is imperative for future management and sustainable utilization of ocean's natural resources. The MAREANO program in Norway, one of the world's largest seabed mapping programs, is designed to close key knowledge gaps for Ocean Governance.

Since the start in 2005, a little more than a billion NOK (c. 125 million USD) have been allocated to the MAREANO program to provide bathymetric, geological, biological and chemical mapping of the Norwegian sea territories. Moreover, the program has revealed valuable insights into the occurrence of ocean litter and micro plastic in these areas.

Knowledge from MAREANO forms an integral part of the scientific basis for Norway's **Ocean Management Plans** which have been a cornerstone in the ocean management since 2005. MAREANO can be considered as a toolbox for acquiring insight into the benthic ecosystems in areas prioritized by the Norwegian government.

MAREANO provides a neutral and objective information source for dialogue between government, industry, science and civil society, facilitating constructive partnerships for meeting the challenges and securing both protection and production from the oceans.

The Lofoten region is an excellent example of this. One of the world's richest cod fisheries takes place here, and the region is also very interesting for hydrocarbon exploration and exploitation. Cold-water coral reefs are under pressure from trawl fishing, and maritime traffic crosses the region. MAREANO has mapped the nature types through bathymetric, geological, biological and chemical mapping, and documented for instance extensive areas of cold-water coral reefs which have been given a status as **Marine Protected Areas**.

Microplastics is part of the **marine pollution** work in MAREANO, with investigations so far conducted on the mid-Norwegian shelf, in the Barents Sea and around Svalbard. Heavy metals and organic pollutants, including new substances like the flame retardant dechlorane, are part of this package

Climate change is addressed by MAREANO in two ways. North-South transects in the Barents Sea, and studies in arctic fjords like Kongsfjorden and Rijpfjorden give a baseline for monitoring climate-related changes in the seabed fauna. Furthermore, the decreasing sea ice coverage in the northern parts of the Barents Sea, west and north of Svalbard means that new fishing grounds have become accessible for commercial fisheries. Mapping of the seabed biotopes documents the environmental state before fisheries are initiated.

Maritime security also benefits from the bathymetric mapping, e.g. as performed north of Svalbard, providing a safe fareway to the Rijpfjorden region.

In the coming years, MAREANO will explore more than 1 million square kilometres in the deep parts of the Norwegian Sea, where there is a large interest in submarine mineral deposits associated with the mid-ocean ridge.

All together, MAREANO provides key knowledge for the development of a **sustainable blue economy**.

Featured talks:

- Ocean mapping as the basis for Ecosystem-based management - Cecilie von Quillfeldt, *Norwegian Polar Institute*
- From deep-ocean volcanoes to coral reefs – highlights from 15 years of ocean mapping and research. Terje Thorsnes, *Geological Survey of Norway*
- Ocean mapping and ocean knowledge in a global context for sustainable blue economy development. Peter Haugan, *Institute of Marine Research, Norway*

The talks will be followed by a short panel discussion.

Join us for an hour of presentations and panel discussion, while enjoying a panoramic view of Oslo at Radisson Blu Plaza Hotel.

A light breakfast will be served.