EMSO ERIC, the Pan-European infrastructure of seafloor and water-column observatories around the European seas, extends its coverage to the Arctic

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EMSO is constantly progressing towards a fully operational Research Infrastructure by 2022 providing open access data and services. In this endeavour, the support from European projects has been crucial. In the framework of the H2020 EMSO-Link project, the EMSO scientific and engineering teams have made significant progress in establishing ocean observation requirements, around the GOOS Essential Ocean Variables (EOVs). The EOVs are key parameters for monitoring deep ocean and are essential in best practices for ocean observation. Their collection and processing can be used in policies to limit greenhouse gas flow, and can have useful applications for the industry. In terms of technological developments, EMSO in the framework of the EMSODEV H2020 project (2015-2019) developed an innovative tool the EMSO Generic Instrument Module system (EGIM). EGIM provides interoperability and standardization in core EOVs for a wide range of applications such as the MSFD (Marine Strategy Framework Directive) descriptors, climate, operational services and ocean health. Finally the on-going H2020 ENVRI-FAIR project aims to deliver open access to data and services from the different Research Infrastructures across Europe following FAIR (Findable, Accessible, Interoperable, Reusable) principles.

The beginning of 2021 finds EMSO much stronger as Norway is appointed as a new member of the EMSO ERIC, extending the geographical coverage to the Nordic Sea and the Arctic. This strongly contributes to broaden the observation for climate change, ocean circulation and hazards. The EMSO extension to the Nordic Sea and Arctic area will benefit from an experienced team managing moored observatories, 12 gliders, and the Mohn Ridge seabed and water-column observatory.

EMSO ERIC is a key contributor towards EOOS the coordinating framework designed to align and integrate Europe's ocean observing capacity for the long term. EMSO ERIC is fully in line with the EOOS vision strengthening coordination, strategy and sustainability in ocean observation with high-frequency, high-quality measurements from the surface of the ocean to the deeper parts using state-of-the-art technology. Moreover, EMSO ERIC significantly contributes to a sustainable development model of the Planet with objectives in line with those of the "UN Decade of Ocean Science for Sustainable Development (2021-2030)" (http://oceandecade.org). The UN Decade identifies a series of SDGs (Sustainable Development Goals, https://sdgs.un.org/goals) combining economic development with social inclusion and environmental protection.