Response by EMBRC ERIC, EMSO ERIC, Euro-Argo ERIC & ICOS ERIC to the Call for Evidence for the Ocean Act

Research Infrastructures (RIs) form the backbone of Europe's long-term, transnational ocean observation capacity. ERICs in particular play a unique coordinating role across Member States (MS), aligning national investments, reducing duplication, enabling interoperability, and ensuring European and global integration of observing systems. Our Research Infrastructures, EMBRC, EMSO, Euro-Argo and ICOS, operate at basin, European and global scale, and are essential enablers of EU priorities under the European Ocean Pact.

The signatories welcome the proposal to create a formal Commission-MS forum to govern and coordinate the European Ocean Observation System involving all relevant stakeholders, including the RIs. This could ensure the structured political governance that is needed. Several conditions, however, must be met in order to ensure a real governance of the European Ocean Observation System. First of all, rather than a mere discussion forum, it should be a body making decisions that are acted upon at European and national levels. Second, it must recognise the merit of ocean observation as a strategic activity for the EU by conferring it the status of Critical European Infrastructure. Third, its decisions must be evidence-based and transparent. Fourth, given the actual geopolitical shifts, the EU must endeavour to achieve strategic autonomy, which implies raising investments.

Ocean observation is the cornerstone for the study of ocean health and climate change. It underlies and serves to monitor all EU policies related to biodiversity, climate change, and the EU Marine Strategy, including maritime spatial planning. It continuously populates the databases needed to implement the Digital Twin of the Ocean and make it actionable for the Blue Economy. In situ ocean observation is also an essential complement of satellite observation for the meteorological services and most of the Copernicus Entrusted Entities (EEs: Mercator Ocean International, ECMWF, EUMETSAT,

ESA), as in situ data serve to calibrate and validate satellite measurements and are assimilated in forecasting models. Copernicus EEs and national Copernicus committees should therefore also be considered as major stakeholders of the Commission-MS forum to facilitate the interplay between satellite and in situ observation.

In this context, the ocean-observing ERICs consider that a Commission-MS forum governing and coordinating the European Ocean Observation System should primarily address the following issues:

- Provide recurrent funding mechanisms at national and EU level that are appropriate to the continuous, operational monitoring of the ocean required for policy purposes, the Digital Twin of the Ocean, Copernicus and other forecasting services. Research project funding at national, transnational (e.g., JPI Ocean) or European level (Horizon Europe) do not provide the stability, sustainability and long-term visibility that are needed beyond research activities.
- Consider the prioritisation of funding that may be required to address strategic priorities while ensuring the continuum of in situ observation from the seashore to the open ocean, for essential ocean and biodiversity variables.
- Ensure the uptake of technology evolution and the improvement of data quality in ocean observation.
- Address geographic observation gaps in international zones of scientific and/or strategic interest (e.g., polar zones) or linked to the non-participation of some MS in European RIs.
- Address policy issues that may hamper activities such as the access to the Exclusive Economic Zones of MS (sea-basin governance) and at international level.
- Sustain a coherent and standardised approach to planning and conducting in situ ocean observation campaigns.
- Foster and coordinate diplomatic initiatives to support international coordination of observing networks while promoting European leadership.