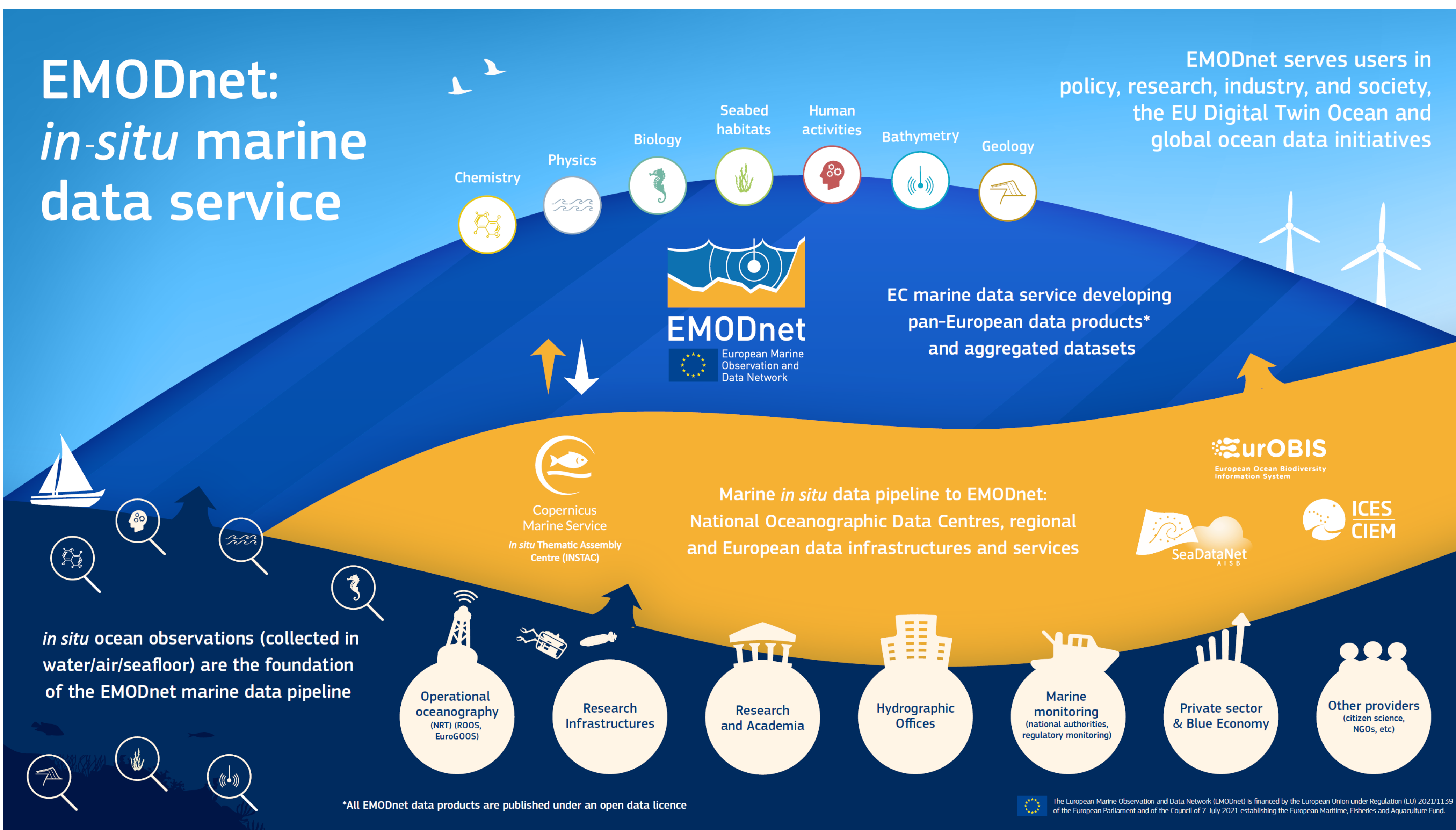
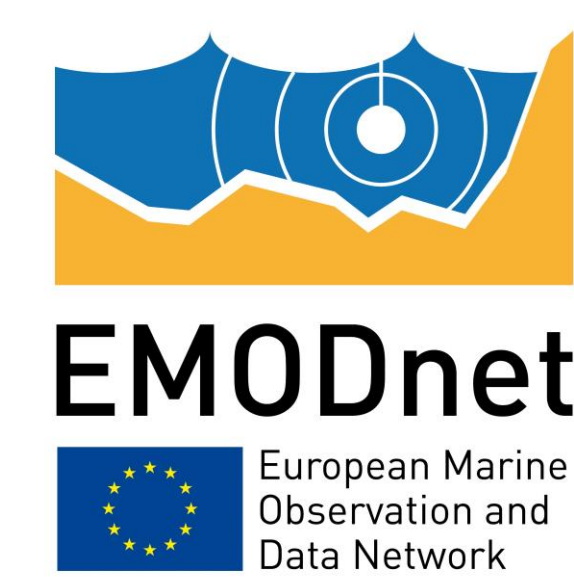


The European data system: How EMODnet and SeaDataNet work together

Alessandra Giorgetti¹, Dick M.A. Schaap², Athanasia Iona³, Steven Piel⁴, Lotta Fyrberg⁵, Gwenaelle Moncoiffe⁶, Serge Scory⁷, Chiara Altobelli¹

¹OGS, Trieste, Italy; ²MARIS, The Netherlands; ³HCMR, Greece; ⁴IFREMER, France; ⁵SMHI, Sweden; ⁶BODC, United Kingdom; ⁷RBINS, Belgium



Introduction

According to the European Commission (EC), improving data-driven knowledge of the sea and ocean, based on observations, is necessary to achieve good environmental status, to drive innovation and sustainable growth.

EMODnet

The EC launched the **European Marine Observation and Data Network (EMODnet)** in 2009 to provide free access to marine data, metadata and data products covering seven disciplines: bathymetry, geology, physics, chemistry, biology, seabed habitats and human activities. EMODnet also serves global ocean data initiatives like IODE and other IOC data systems. **Several EMODnet themes rely on SeaDataNet** to manage data and metadata according to FAIR data principles and international standards.

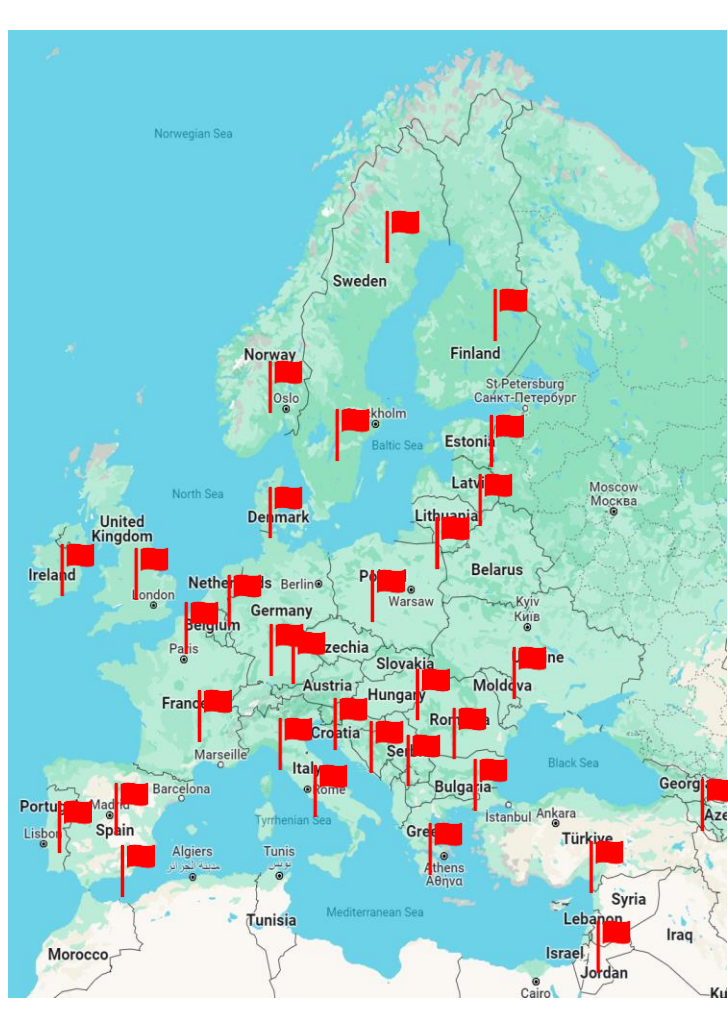
SeaDataNet

Since 2006, SeaDataNet has been developed as an EU-funded pan-European infrastructure for marine data. It counts on +100 national oceanographic data centres and ~900 data originators. It is currently managed by an international non-profit organization.

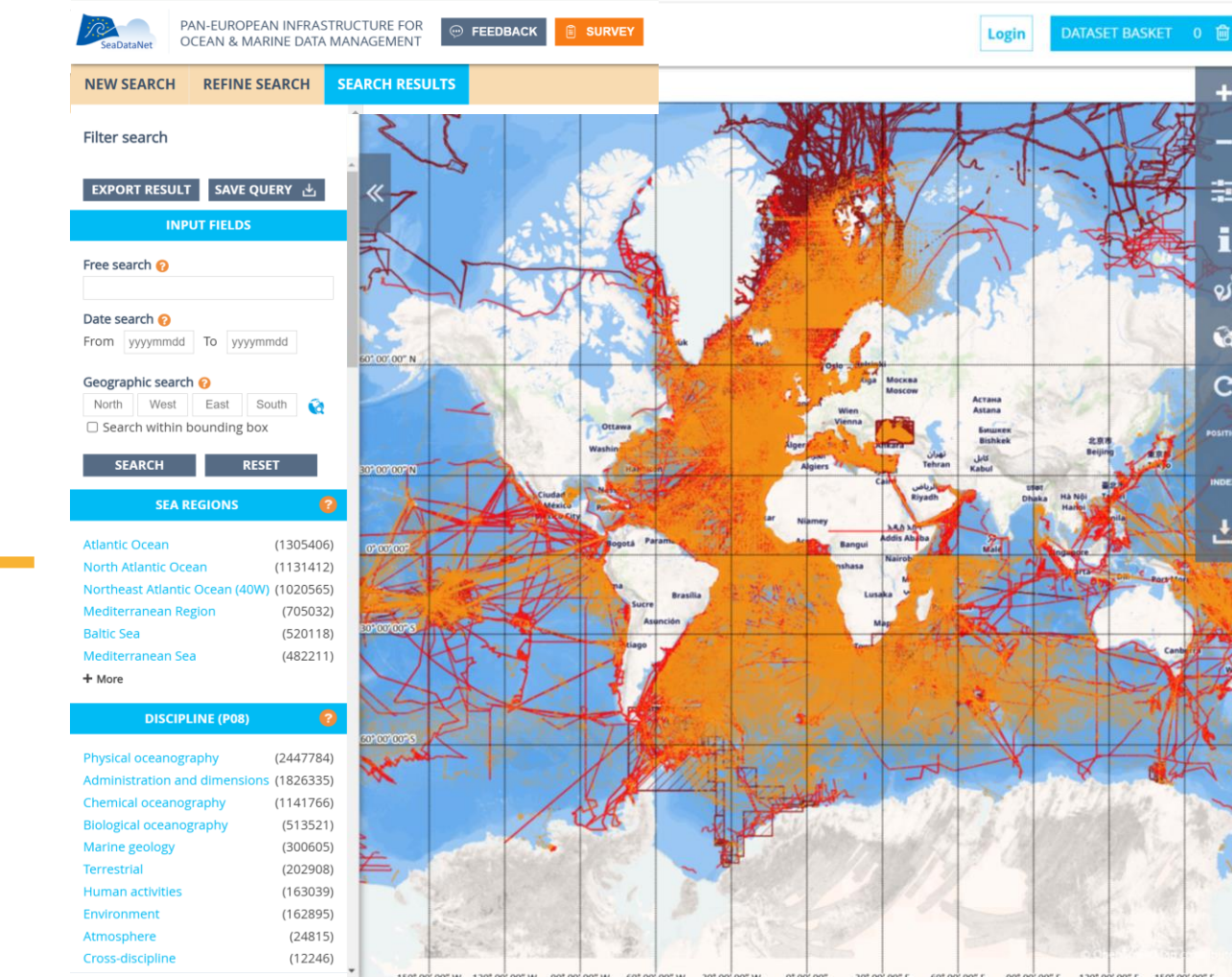
SeaDataNet services and standards are used by regional and European data infrastructures to format, harmonize and make accessible raw data.



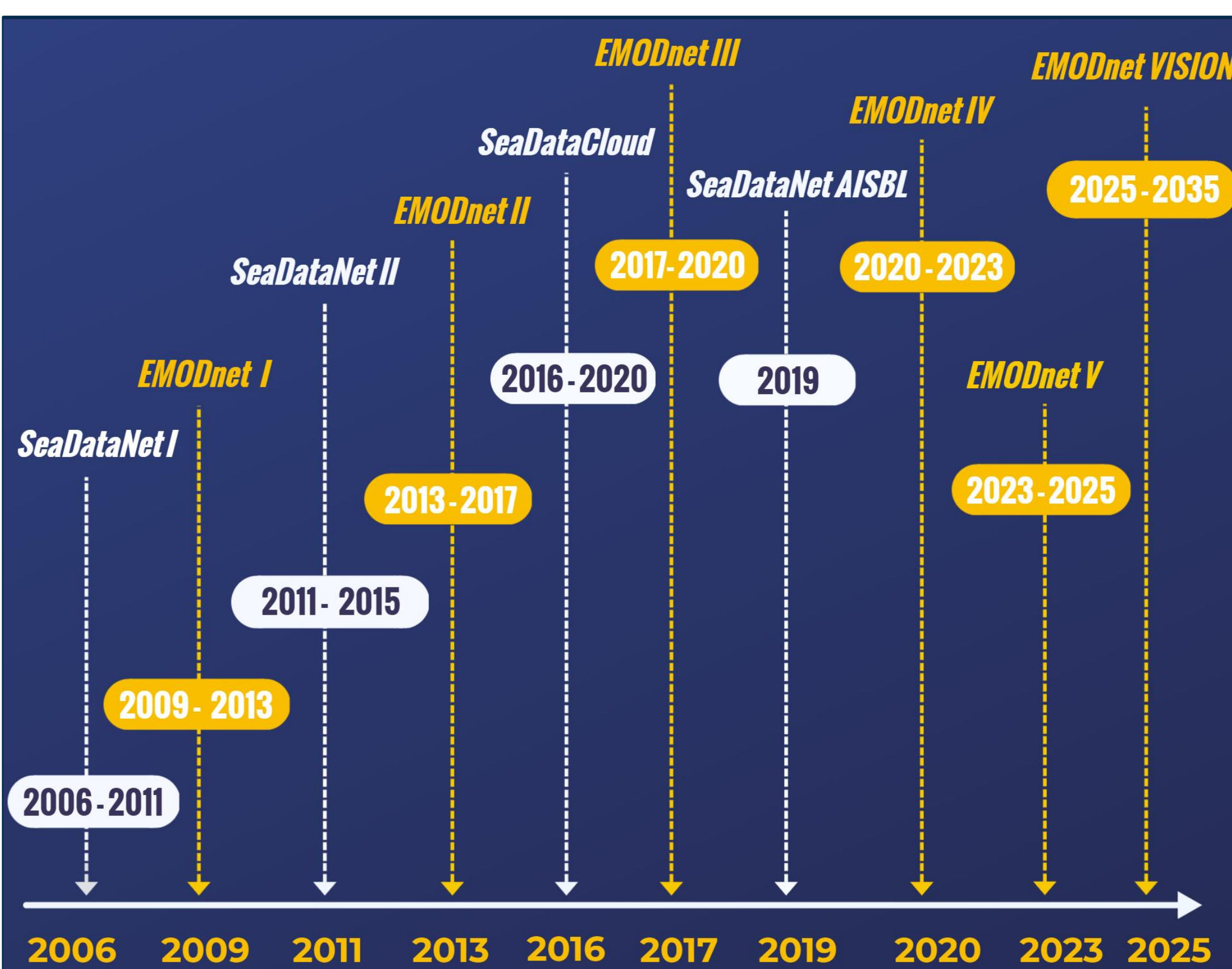
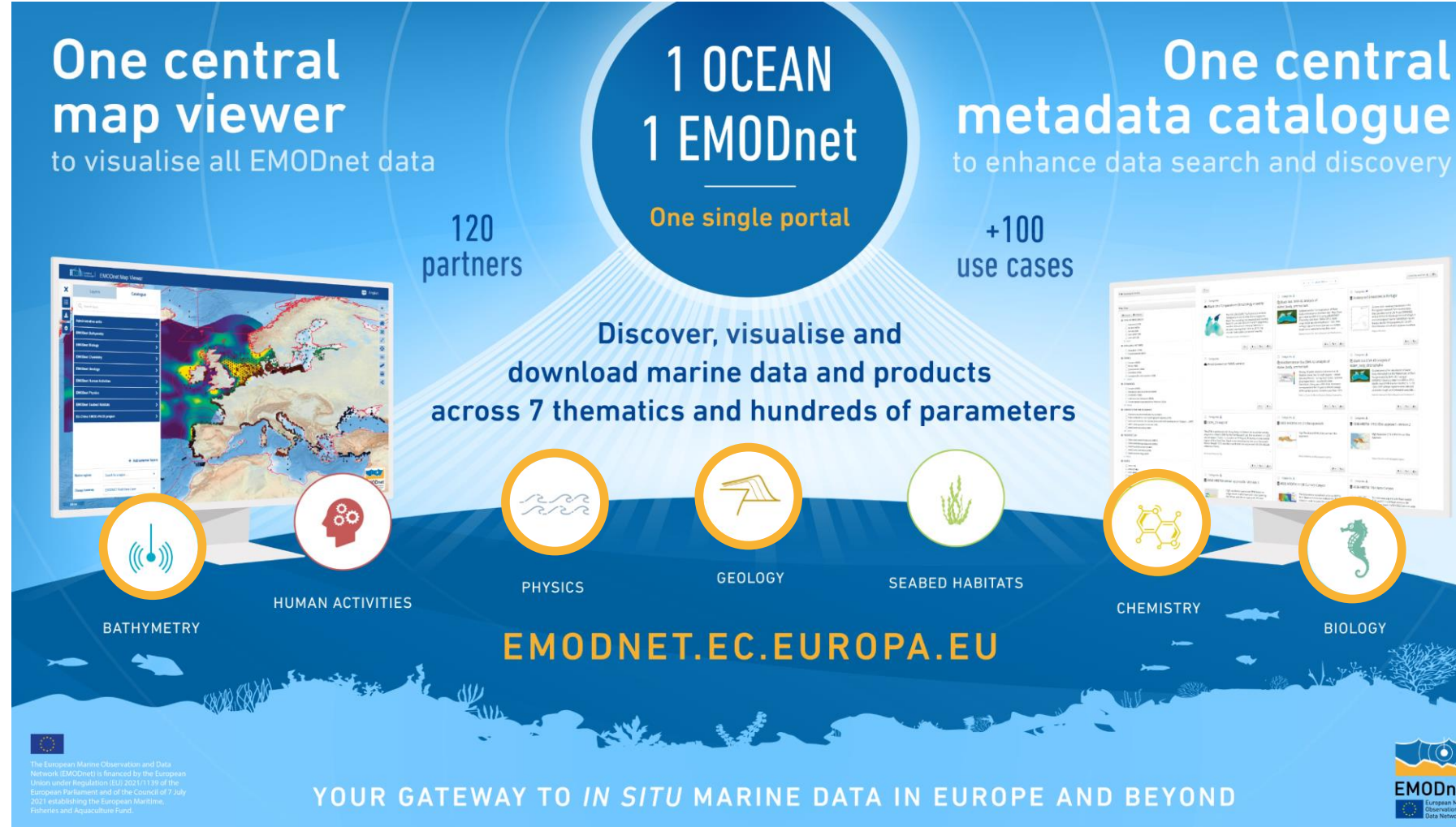
Network



Data Discovery and Access Service

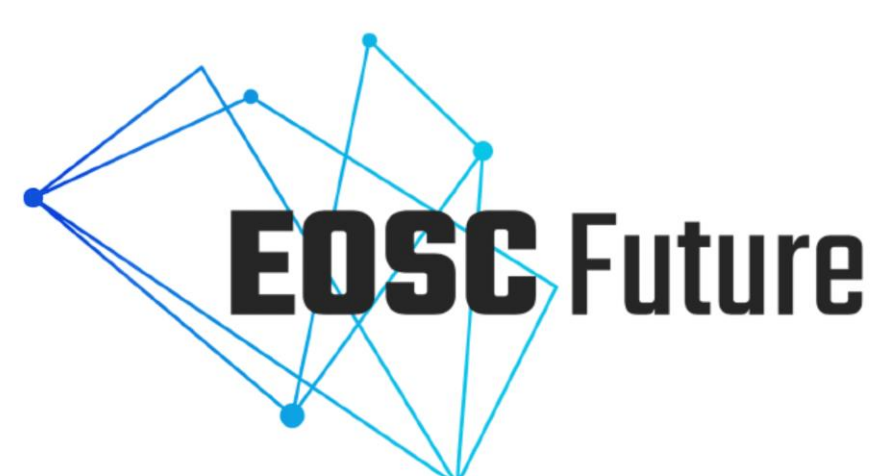


Blue Data Infrastructures



- **SeaDataNet I**
Built up a standardized system for managing the large and diverse oceanographic data sets
- **SeaDataNet II**
Enhance the network of data centres to build research excellence in Europe.
- **SeaDataCloud**
Adopted cloud and High Performance Computing technology for better performance.
- **SeaDataNet AISBL**
Established an International non-profit organization to improve marine data management.

- **EMODnet I**
Limited sea basins; 59 Institutes.
- **EMODnet II**
Low resolution all basins; 120 institutes.
- **EMODnet III**
Multi-resolution; over 150 institutes.
- **EMODnet IV**
Data products further enlarged; The network expanded.
- **EMODnet V**
Integration and centralization.
- **EMODnet Vision**
The call to action in 2023 set the stage for the development of the Vision up to 2035.

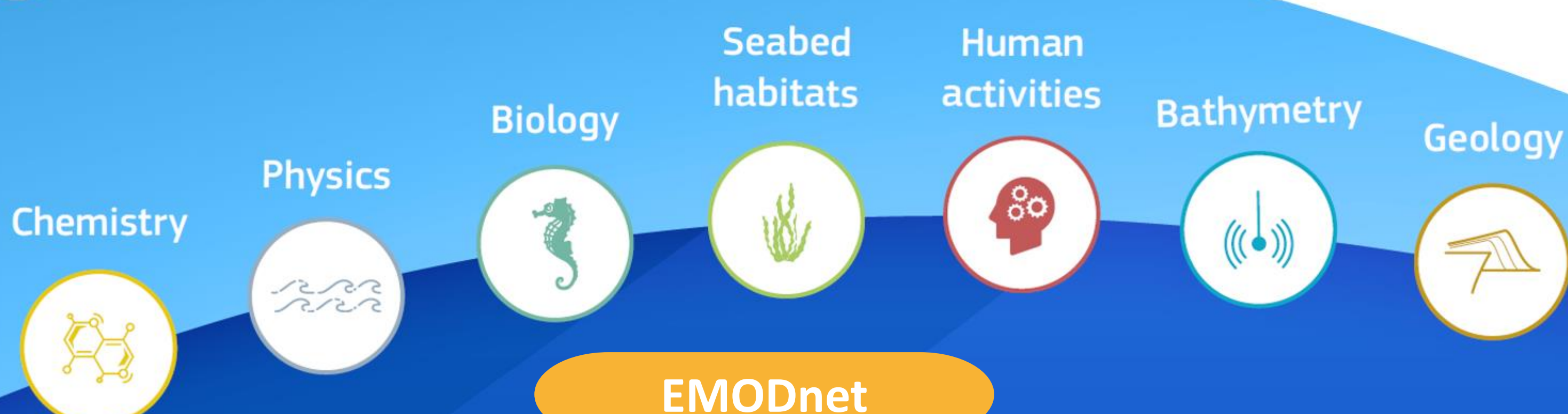


SeaDataNet for EOSC

SeaDataNet participates in projects like ENVRI-FAIR, EOSC-FUTURE and Blue-Cloud supporting the implementation of the European Open Science Cloud (EOSC).

Contacts: agiorgetti@ogs.it, dick@maris.nl

emodnet.ec.europa.eu



The European Marine Observation and Data Network (EMODnet) is financed by the European Union under Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund.

