

Connecting the world around ocean forecasting



As a crucial element of the UN Ocean Decade objectives, the Ocean Prediction Decade Collaborative Center (OceanPrediction DCC) sets up a framework for global cooperation with the aim of enhancing ocean prediction services for the benefit of all. Our objective is to promote international collaboration in designing and providing ocean services, innovate technologies for the effective exchange and utilization of marine information, advance the standardization and interoperability of marine data, encourage cooperation among marine services, and support research and capacity development in oceanography worldwide.



‘The Ocean Prediction DCC is an essential part of the coordination structure of the UN Ocean Decade. Only with the engagement of partners such as Mercator Ocean International, who are leading decentralised coordination structures, can the Ocean Decade truly engage across the global ocean community and meet the Decade aim of leaving no-one behind. The Ocean Prediction DCC is a model in regional engagement and is providing an example for other partners to follow.’

- Alison CLAUSEN

Programme Specialist, IOC-UNESCO

A Global Platform

unoceanprediction.org

Join our ATLAS

Centers and experts worldwide are invited to join the community, and add their ocean forecasting systems and services to the Atlas.



Visit
ATLAS

Contribute to our FORUM

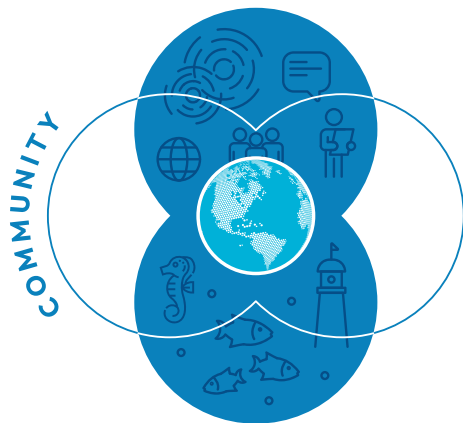
Be an active member of our community: share your announcements, challenges, visions and solutions to advance together toward a predicted ocean.



Visit
FORUM



A Decade Collaborative Centre based on two pillars:



A Global Community

We are establishing a worldwide network of institutions and individuals to provide a unified voice for the ocean prediction community, and to be the base of a collaborative structure. This network is structured around Regional Teams and a central communication and collaboration hub (the Atlas and the Forum). The primary aim is to align and optimize individual contributions towards achieving the collective goals of the Ocean Decade related to ocean forecasting and prediction.

A Global Technical Framework

Collaborating with Ocean Decade initiatives and key partners, we are leading the co-design and implementation of the next generation of ocean forecasting systems. This approach is grounded in interoperability and a shared architecture, delivering a unified ocean forecasting system and capitalizing on advancements from the digital twinning concept. This is carried out through our global Ocean Forecasting Co-Design Team that comprises experts across the entire ocean forecasting value chain.



3

Main Tools for Ocean Forecasting Capacity Development



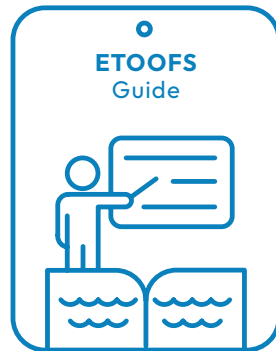
Learn
the theory



Implement
your system



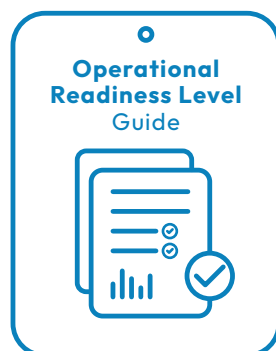
Improve
your system



The Guide on **Implementing Operational Ocean Monitoring and Forecasting Systems*** (ETOOFS Guide) is a reference manual providing the international standards and best practices for setting up forecasting services. It is a unique and comprehensive reference document for the operational ocean modelling community designed to train and inspire professionals implementing ocean monitoring forecasting systems worldwide.



Building an operational ocean forecasting service from scratch is a complex task, sometimes beyond the capabilities of less technically advanced institutions. This co-designed **Architecture Guide** provides the technical specifications and wiring diagrams to develop an Ocean Prediction System that is interoperable and ready to be integrated into digital twins.



The **Operational Readiness Level (ORL) Guide** functions as a tool for developers to evaluate certain technical aspects of a system. Enhancing the ORL qualification of a service serves to implement best practices in ocean forecasting, thereby improving the overall capacities of the system.

*Initiated at the request of the Intergovernmental Oceanographic Commission of the UNESCO (IOC-UNESCO) and the World Meteorological Organisation (WMO), the guide was funded and produced by the Global Ocean Observing System (GOOS) and its Expert Team on Operational Ocean Forecasting Systems (ETOOFS), and Mercator Ocean International.

About the OceanPrediction Decade Collaborative Center

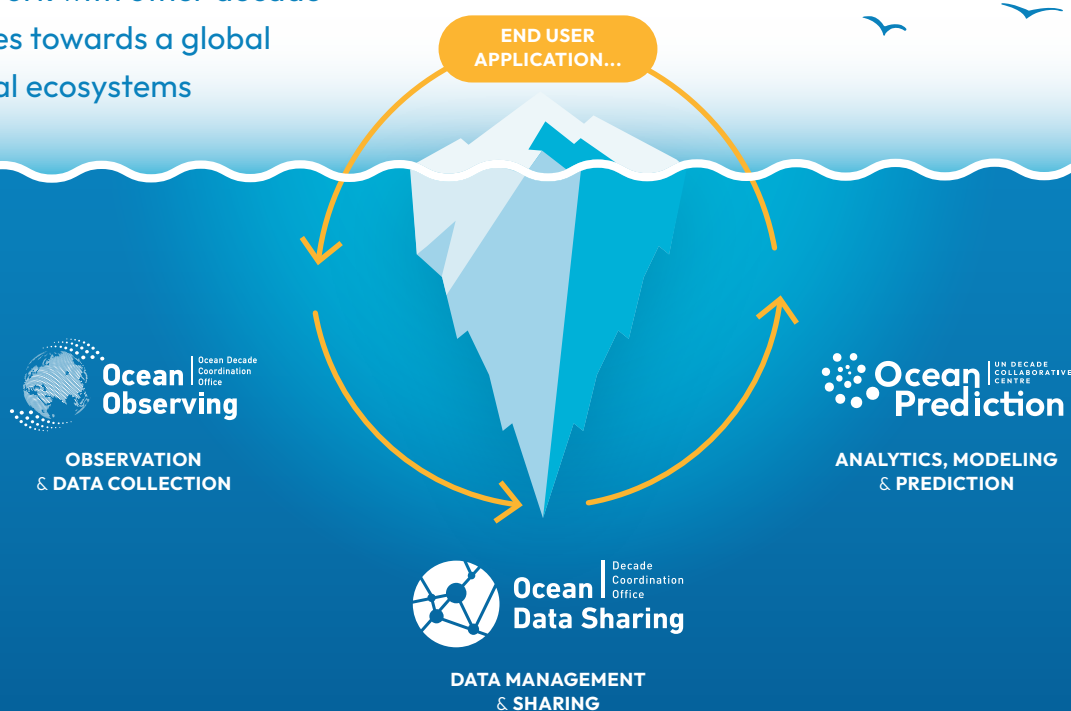
The OceanPrediction DCC, is part of the [Decade of Ocean Science for Sustainable Development](#) led by IOC-UNESCO. Hosted by Mercator Ocean International, it aims to advance global operational ocean forecasting services through collaboration. Its goal is to democratize forecasting capabilities by integrating them into interoperable digital twins, converging disparate systems into a comprehensive entity.

2030

The Ocean Forecast We Want:

- > Many robust systems worldwide
- > Connected community and services
- > Delivering as one single system thanks to the interoperable Digital Twins of the Ocean

OceanPrediction DCC
will work with other decade
bodies towards a global
digital ecosystems



About Mercator Ocean International



Mercator Ocean International is a non-profit organisation, in the process of becoming an intergovernmental organisation, committed to building a science-driven Digital Ocean for supporting the conservation and the sustainable use of the ocean. It delivers an operational digital description of marine environments worldwide and helps organisations implement community and institutional programmes, projects and initiatives. Mercator Ocean continuously builds interactions between scientists, policymakers, public and institutional decision-makers and civil society.



unocanprediction.org/en
www.mercator-ocean.eu/en/



unocanprediction.org/en/forum



Mercator Ocean