



The Ocean Data and Information System (ODIS) is a digital ecosystem in which a global community of organisations - large and small - share and exchange their (meta) data to better understand and steward the Ocean.

Established and emerging data systems are interlinked through the ODIS Architecture - a set of technical norms and conventions designed to promote digital interoperability across and beyond the ocean domain. The ODIS Federation co-governs the ODIS Architecture, bridging digital divides in support of global insight and action.

Data systems that join ODIS are able to co-develop the federation's digital culture to represent their capacities and missions. As a result, users from diverse backgrounds are

more likely to discover resources that match their needs, even from systems previously unknown to them. As ODIS grows and evolves, it will facilitate ever deeper and broader exchange of global data and capacity for the benefit of all. Coordination and support for both the social and technical aspects of this digital ecosystem is provided by the International Oceanographic Data and Information Exchange (IODE) of UNESCO's Intergovernmental Oceanographic Commission, leveraging its many decades of experience in multilateral digital development.

FROM COMMON NEEDS TO SHARED GOALS

ODIS connects globally distributed and independent data systems, and - through open technologies - verifies and validates that its partners are exchanging interoperable (meta)data.

Together, ODIS partners seek to:

- Transform the cyberdiversity of the Ocean's digital ecosystem from a challenge into an asset for developers and end users.
- Bridge geographic, cultural, technological, and digital divides to support all in using ocean data for sustainable management and policy development.
- Promote digital equity and inclusion by supporting multiple modalities of sharing digital assets over the Web.
- Support decision making at all scales by harmonising data flows for global and local application.
- Increase trust and multilateralism by bringing together data in support of shared action and common goals.

ODIS brings together interdisciplinary and cross-domain communities which seek to share knowledge for the benefit of the Ocean and humanity.



FROM PILOT REGIONS TO A GLOBAL NETWORK

ODIS was established through the Ocean InfoHub Project (OIH), during which partners in three pilot regions - Africa, Latin America and the Caribbean, and the Pacific Islands - tested the ODIS Architecture to connect their information hubs. Once this proof of concept was secure, OIH then expanded ODIS to connect many more regional, national, thematic, and local data systems. The OIH discovery portal currently interlinks over 500,000 digital assets (describing, e.g. datasets, vessels, organisations, and experts) and is rapidly evolving and expanding as new partners join ODIS.

TECHNOLOGY CENTRED ON PARTNERSHIP

As a digital ecosystem, ODIS is both a technological solution and collaborative, global partnership of people and organisations. These elements constitute the ODIS Federation and enhance the collaborative exchange of ocean data and information.

ODIS PARTNERS ARE MAPPING THE OCEAN'S DATASCAPE.

- Each ODIS partner operates one or more sources of data, known as "Nodes".
- With each new Node created, ODIS gains richness and capacity, which is rapidly shared with all its partners and users.
- Currently, 40+ Nodes - operated by small teams as well as continental-scale data systems - are federating data from hundreds of organisations, an unprecedented level of discoverability.
- Together, the ODIS Federation will continuously deepen its interoperability, both internally and with other data systems to face cross-domain and interdisciplinary challenges.

ODIS

Data for the
Global Ocean

DATA

Existing Ocean data catalogues & services (like IODE's Biodiversity Information System, OceanExpert, AquaDocs, Ocean Best Practices System) and many more from the ODIS Federation

CONVENTIONS

Conventions and specifications for interoperable (meta) data exchange

Experts and institutions/organisations

Documents

Training opportunities

Spatial data and maps

Projects

Research vessels

Aligned to
ODIS-Arch
conventions

PROVIDING DATA

DIGITAL ECOSYSTEM

built through ODIS-Arch
with infinite potential

SEARCH

through Ocean InfoHub platform
and other search engines

CONNECT

marine and coastal Ocean data
centres across the globe

USING DATA

Cooperate and exchange knowledge to
build a truly shared Ocean

SOME KEY BENEFITS FROM ODIS

For data providers

- Increase visibility of your data and information to the world.
- Retaining ownership and control of your (meta)data.
- Promote (re)use by a global community of partners with minimal effort.

For data users

- Find new and more diverse data, information, and digital services for your aims.
- Easily monitor the ODIS digital ecosystem for updates and changes as new sources emerge.

For existing data portals and repositories

- Boost capacities using the ODIS Knowledge Graph and data product suite, where 600,000+ digital assets from across the ODIS Federation are indexed.
- Link (meta)data back to their source, to preserve provenance and direct users to new resources, or establish integrated, interoperable, and collaborative services over the ODIS Architecture.
- For regional portals, filter and extract ODIS content according to regional priorities and communicate regional and local needs to the ODIS Federation.

DATA FROM AND FOR THE GLOBAL OCEAN, ACCESSIBLE TO ALL

Navigating the future of Ocean data.

ODIS benefits marine and coastal Ocean data centres across the globe by:

- Improving access to data and information, promoting new solutions to shared problems, and enhancing informed management and decision-making for the sustainability of the Ocean.
- Shaping itself to the needs of local, national, and regional communities.
- Assisting countries in their reporting requirements for the Sustainable Development Goals.
- Contributing to key aims of - among other frameworks - the UN Decade of Ocean Science for Sustainable Development, the Paris Agreement, the Sendai Framework for Disaster Risk Reduction and Marine Biological Diversity of Areas Beyond National Jurisdiction.

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<https://www.odis.org>



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Join the ODIS and build a truly shared Ocean

ODIS is leading OceanData-2030, a registered Programme of the UN Decade for Ocean Science for Sustainable Development



Contact us through e-mail at info@odis.org

We can help you share your organisation's Ocean data