27-29 May 2024

International conference on Marine Data and Information Systems

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OCEAN DATA RELATED PROGRESS AND ACTIVITIES IN THE OCEAN DECADE

THE DECADE DATA AND INFORMATION STRATEGY AND ITS ACTION PLAN, THE DCO-OCEAN DATA SHARING & THE VISION 2030 WHITE PAPER ON CHALLENGE 8 — DIGITAL OCEAN

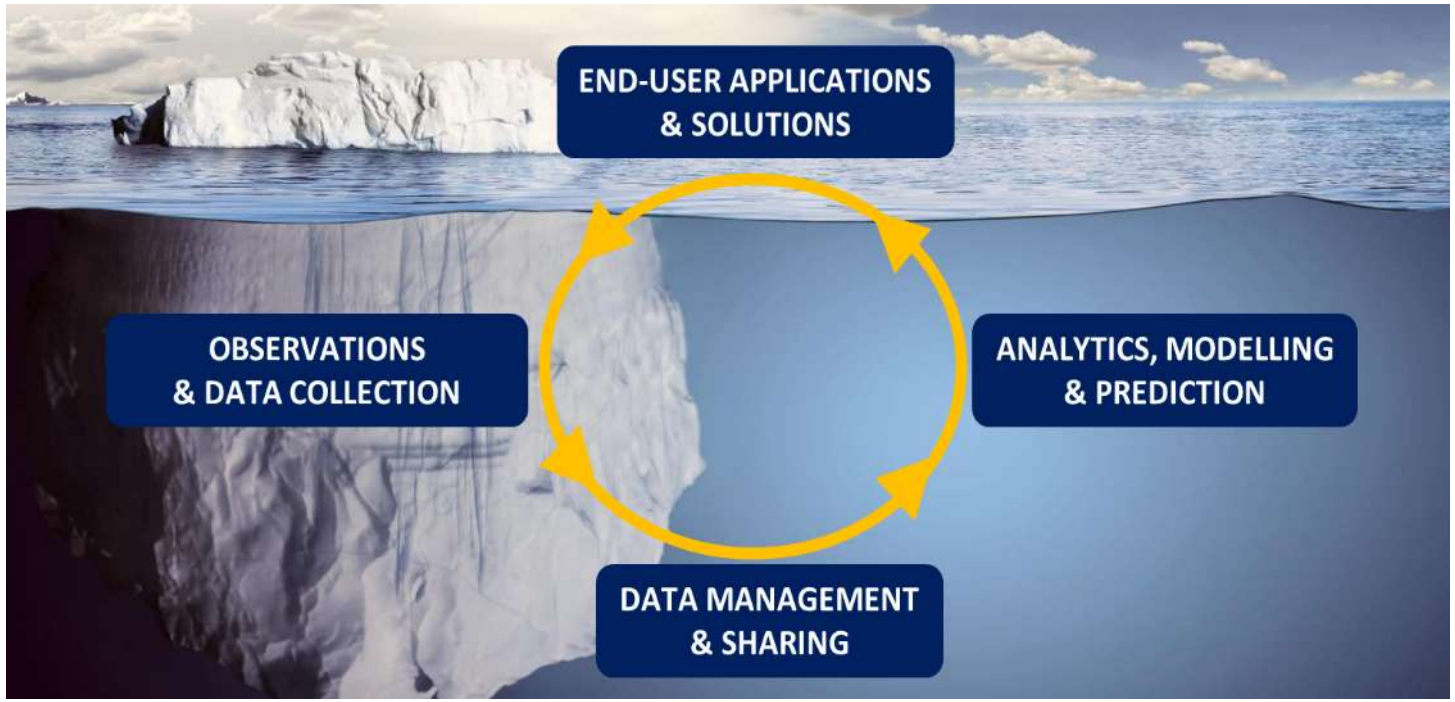
2024 05 27 IMDIS CONFERENCE 2024

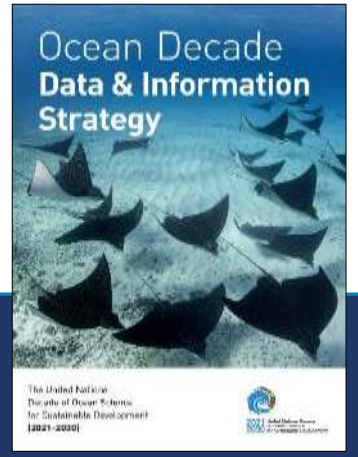
JAN-BART CALEWAERT & LOUIS DEMARGNE

Vision: the science we need for the ocean we want

Ocean Decade

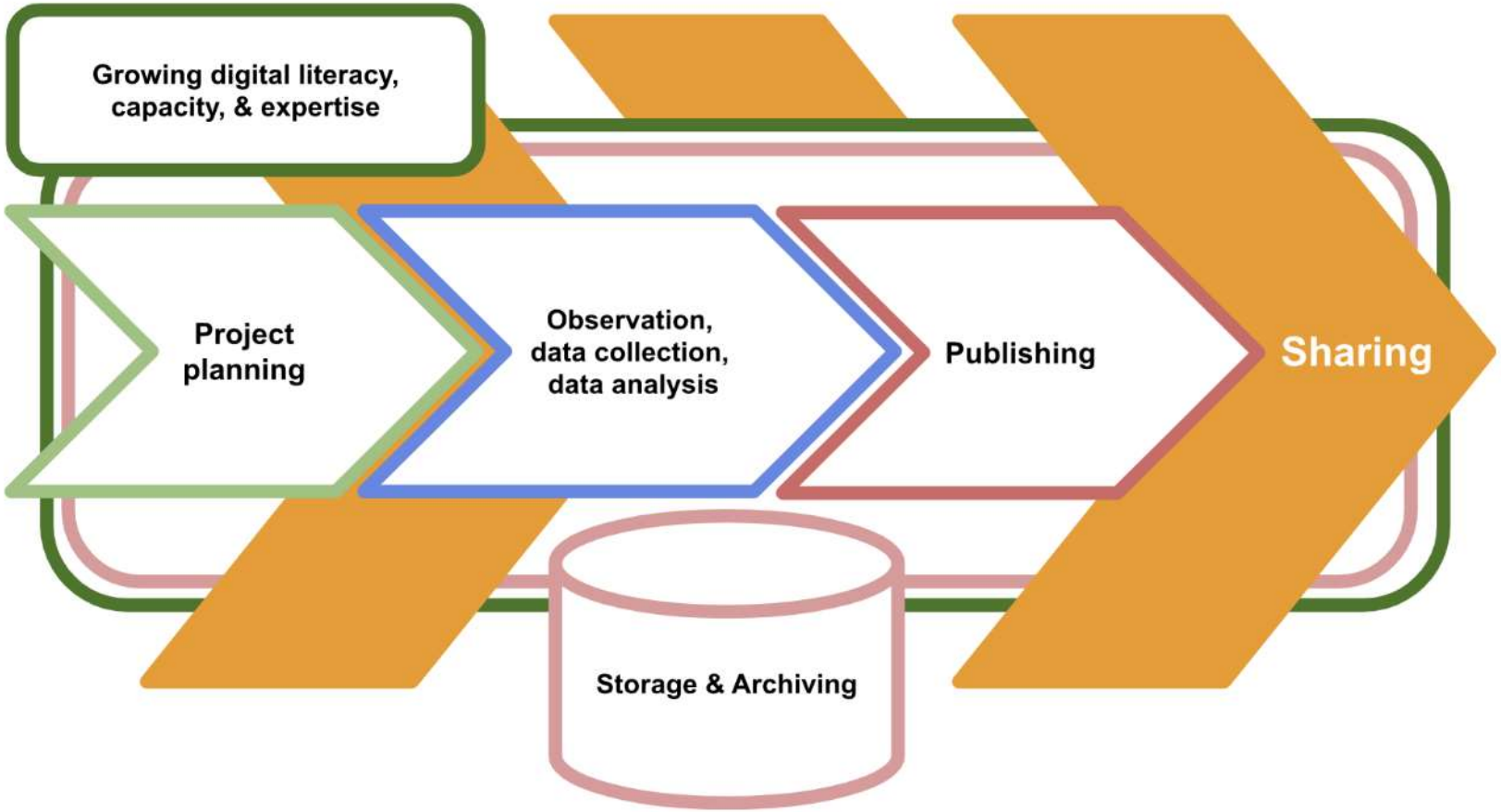
Strategy to coordinate data collection, management, usage and sharing





Download here:

Strategy implementation plan – How is the document organised?



Strategy implementation plan – example Action

Action	A general descri
Action implementer	A list of people c
How to do this?	Recommendatic examples of exis this action.
Rationale	Rationale behin

Action: Write or modify your data management plan to be fit for the Ocean Decade

- **Action implementer:**
  - Project leads and coordinators, data team leads, all project participants
- **How to do this:**
  - Assess your existing data management plans (DMPs) or generate new DMPs factoring in the recommendations in this document, as well as those in the associated Strategy (see Introduction).
  - Ensure all DMPs, or parts thereof, are (from the earliest draft possible and where confidentiality and security factors allow) securely archived, version controlled, and publicly accessible via a dereferenceable persistent identifier (e.g. a DOI).
  - Ensure that your project's data flows - from all sources to all sinks - are clearly accounted for, tracking what form the data assumes (i.e. their formats, semantic markup, and other attributes) along each flow.
  - Review whether the funder for the data collection or the organisation overseeing data collection has sufficient resources or requirements for building specific data management and sharing plans.
    - If so: ensure that these resources are used to create a deep, accurate, and technically sound DMP, cross-referencing this document where suitable. This process should be led by data professionals. Ensure that mechanisms for revision and updating the DMP as the project develops are resourced.
    - If not: Inform the organisation / funder that this is a necessity for modern undertakings, even those that are not yet generating digitised forms of data, information, and knowledge. In all releases

Key Components of a globally distributed, trusted, inclusive, and interconnected ocean data and information ecosystem

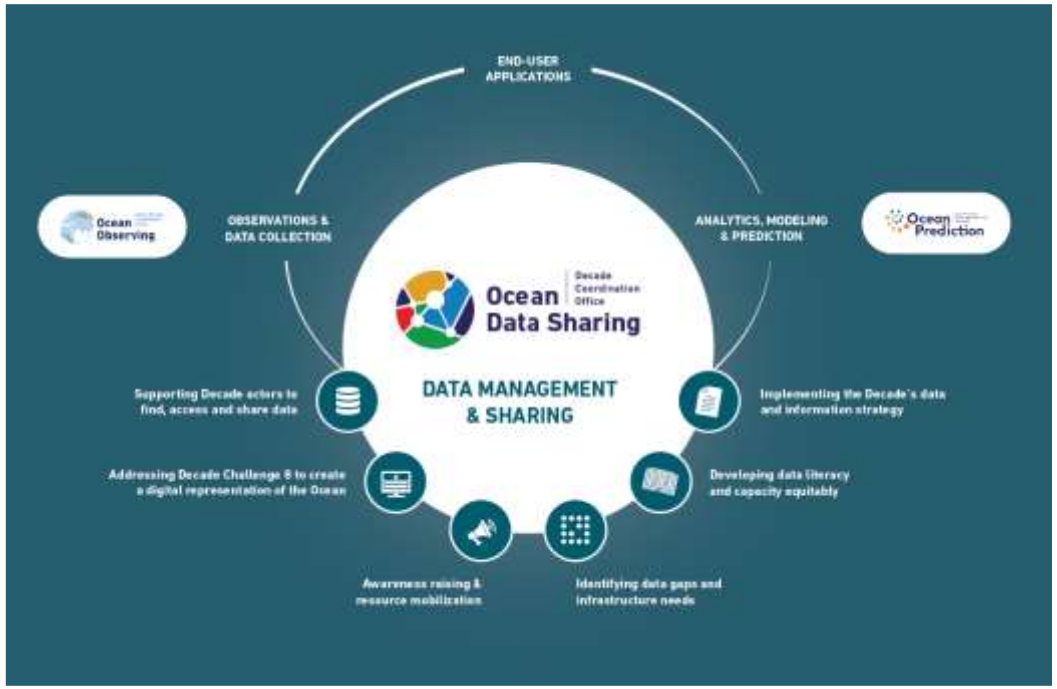
Ocean Data Sharing | Decade Coordination Office

- The main aim of the Decade Coordination Office (DCO) for Ocean Data Sharing is to **establish, promote and coordinate** the data management and sharing component of the digital ecosystem needed for the Ocean Decade to be successful.

DCO for Ocean Data Sharing

Building understanding and capacity to transform ocean data sharing in the Decade

- **Coordinate & interconnect the data-sharing component of the digital ecosystem** for the Ocean Decade → Help **implement the Decade's Data and Information Strategy**
- **Assist Decade collaborators with data sharing guidance** to achieve the highest possible data quality and adherence to **FAIR and CARE** principles.
- Facilitate and support efforts to **address Challenge 8 – Creating a digital representation of the Ocean**
- **Promote data literacy and capacity equitably**
- Help identify and address **data gaps and infrastructure needs**



DCO-ODS Website now available

Ocean Data Sharing
Decade Coordination Office

https://oceandatasharing-dco.org/

Includes information on the essential components that serve as the foundation for shaping and advancing the Decade's Digital Ecosystem, to help drive the Community of Practice on Data Sharing and underpin the support to Decade Actions;

Featuring online resources developed by the DCO-ODS:

- ***Data Resource toolkit***
- ***Online Data Help Desk***

unesco
Commission océanographique intergouvernementale

2021 2030 Décennie des Nations Unies pour les sciences océaniques au service du développement durable

DCO-ODS Associatied Decade Actions

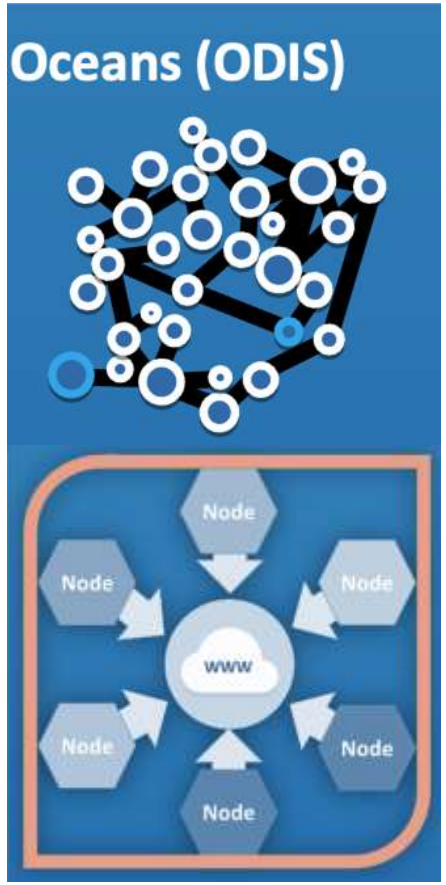
- Connected to **4 Primary Attached** Programmes and Contributions
  - **Ocean Data 2030** (Programme, Lead: IODE)

    Development of an open-source data and information system that will link existing ocean information systems around the world, and enable more efficient discovery of data, information and knowledge products.

  - **Digital innovation Hand-in-Hand with fisheries and ecosystems scientific monitoring** (Programme, Lead: FAO)
  - **World Ocean Database Programme (WODP)** (Contribution, Lead: NOAA)
  - **GEOTRACES** (Contribution, Lead: U.S. National Science Foundation on behalf of international GEOTRACES partners)
- Connected to **1 National Decade Committee (Belgium)** and **3 Decade Implementing Partners** (**EurOcean, EMODnet, Chinese National Marine Data and Information Service NMDIS**)
- In total, **106 endorsed actions** address Challenge 8 — Creating a digital representation of the Ocean, including: **18 programmes, 64 projects** and **24 contributions**.

OceanData2030

- The Decade programme ‘An Ocean Data and Information System supporting the UN Decade of Ocean Science for Sustainable development’ (OCEANDATA 2030) is led by IODE of the Intergovernmental Oceanographic Commission (IOC).
- Development of an **open-source data and information system** that will link existing ocean information systems around the world, and enable more efficient discovery of data, information and knowledge products.
- The **Ocean Data and Information System (ODIS)** and **Ocean InfoHub** are central elements of the OceanData2030 Programme.
- Hosting Ocean Decade projects:
  - ❑ *Marine Regions / From global gazetteer to global community*
  - ❑ *Portuguese National Oceanographic Data Centre*
  - ❑ *World Ocean Database Cloud*



2021 2030 United Nations Decade of Ocean Science for Sustainable Development

IODE International Oceanographic Data and Information Exchange

Flanders State of the Art

IH Ocean InfoHub

Summary White Paper 8 – Digital Representation Ocean

Strategic Ambition Setting for Challenge 8 White Paper

WHO ARE OUR USERS

Everyone - diverse in expertise & area, leave no one behind

- professional (hands on)
- professional (not hands on)
- non-professional/public
- **other 9 challenges are proxy users** defining data & info needs (both content & services)

WHAT DO THEY NEED?

- easy access to ocean data & information (multidisciplinary)
- tools/services for accessing and sharing data, information and knowledge

DIGITAL CONTENT NEEDS

All (types) data and information from Decade must be made available / FAIR

Particular focus on (≥10) **priority data products & underpinning data**

Data-layers as drivers to pull in data

- Address data-gaps, agree on standards & improve interoperability
- Leverage existing communities
- Must be societally relevant (other challenges)
- Must be co-developed in a transparent process

Global layers must be **complemented with** (≥10) **local case studies** (SIDS & LDCs)

DIGITAL SERVICES NEEDS

1. Federated Global Ocean **Data Discovery and Access Service (DDAS) with Help Desk & Ingestion Service**
2. A global **Technical and Organizational Structure for Ocean Forecasting**
3. Online user-friendly **Digital Atlas of the Ocean**
4. **Marine Knowledge exchange platforms & mechanisms**
5. **Enhanced Capacity Development** and **Training** facilities & resources

NEXT STEPS

- **Align with the Data and Information Strategy Implementation Plan** (pending)
- Elaborate and implement process for **selection, validation and co-development** of globally relevant data products and use cases
- **Implement service ideas**, building on what exists / recommended practices
- Implement **synergies with other WPs**
- **Activate relevant Decade Actions, Implementing Partners and Communities of Practice** for implementation – calls for new Actions where needed
- **Activate Expert Group** to drive and monitor progress of Strategic Ambition implementation

unesco
Intergovernmental Oceanographic Commission

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

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THANK YOU

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