IODE IWG-SODIS

Strategy for Ocean Data and information Stewardship (SODIS) for the UN Ocean Decade and other key global data initiatives contributing to the Decade data vision and implementation

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4.2 Coordinating the co-implementation of the Ocean Decade’s Digital Vision (Presentations and Panel discussions)
Context
IOC and the Decade

"The IOC has an important role to play in key areas needed for implementing SDG14, particularly capacity development and technology transfer."

- Peter Thomson
  UN Special Envoy for the Decade of Ocean
IOC and the Decade

• Since 2018, over 2,000 stakeholders have been consulted to develop the Ocean Decade Implementation Plan

• Two peer review processes generated nearly 300 submissions on the draft Plan from IOC Member States, UN agencies, and other stakeholders.

• The IOC’s IODE were heavily involved in the Data, Information and Knowledge chapter of the IP, and called for wide consultation on their inpu
Establishment

- IWG-SODIS was established via IOC’s Recommendation IODE-XXV.5.3 (2019) & Decision IODE-XXVI.6.2 (2021)

- The IWG-SODIS was charged with releasing recommendations on shaping global digital stewardship cultures to support an interoperable digital ecosystem for the Decade, both within the UN System and beyond it.

- The WG was charged to form recommendations around which global digital exchange policies can converge via clear, multilateral agreements.
Objectives (part 1)

• Explore, through UN Oceans, the interest of relevant UN bodies to develop a joint data and information system under the Decade and to start assessing respective data and information guidelines and policies and identify relevant data and information access and repositories that may contribute to such a system,

• Investigate the future scope of scientific data and information stewardship activities of the Decade, including and not limited to:
  • Agreement on common data contributions, flow, latency, discovery, access, and re/use principles,
  • Documenting data and information requirements and best practices,
  • Agreement on data and information protocols and metadata content and structure,
  • Agreement on science-based quality control/quality assurance requirements and procedures for all data types,
  • Agreement on modalities for contribution and dissemination of data and information,
  • Agreement on modalities and establish a strategy for the long-term preservation of Decade data for future use,
  • Agreement on access and use of potential data synthesis and tailored data products derived from the Decade,
A data stewardship culture that supports a sustainable ocean by managing, interlinking, and providing access to global stores of interoperable data and information.

Interoperable – is it really working together?
Membership

• Membership in IWG-SODIS is open to data management Subject Matter Experts (SME) across the United Nations, private, and academic communities.

• An open membership model, all were welcome to participate in meetings and document creation

• Still generally limited in global and community representation

https://oceanexpert.org/group/445
Co-consultations

• IWG meetings drove asynchronous development of reports and recommendations

• The IWG engaged with IODE consultations from within the UN Oceans consortium and with non-UN stakeholders

• Despite the pandemic, broad perspectives, needs, and interests were incorporated into the IWG proceedings
Outcomes
Distillations of recommendations on global data stewardship strategies

IOC/IODE Inter-sessional Working Group
To propose a Strategy on Ocean Data and Information Stewardship for the UN Ocean Decade (IWG-SODIS)
First Interim Report
June 2020

 Proposed Data and Information Strategy for the Ocean Decade
Version 1.0, 8 December 2020
High-level strategy aims

The aim of this strategy is to show how the Ocean Decade community can

(i) collaboratively and openly (or as open as possible) share and exchange well-documented data and information of known-quality and

(ii) facilitate their **timely and equitable** discovery, access, and adaptation into user-driven value-added products and services.

The strategy oriented itself to international data policies such as those from GEO, IOC, WMO, and WDS. This strategy also supports data principles such as FAIR, CARE, and TRUST.
Key Challenges

Several major factors currently limit access to and use of data including:

- The data reside in many non-interoperable online or offline services at different geographic locations in varying formats, described using different vocabularies and metadata (descriptions of information).

- **Data governance regimes** (including aspects of data sovereignty, data residency, and data localization) with intersecting, complex restrictions and regulatory framework may preclude reuse.

- Data users may need to [manually] request permission to use the data from a particular data source.

- It is difficult to assess the versioning as well as the quality of the data.
High-level strategy recommendations

In a nutshell
Ocean Decade Data Stewardship should:

1. Get one’s own house in order, using whatever standards and practices make sense to meet local needs challenges and generate quality-controlled (meta)data with full provenance.

2. Have a mechanism to flexibly project (meta)data into Decade-relevant interoperability layers using regional and/or global conventions/standards (including provenance and quality information).

3. Build relationships to continuously align and patch gaps in global, regional, and local standards and conventions to meet real-world needs → develop inclusive co-governance at these levels.
Impacts & legacy (selected)

- IODE’s Ocean Data and Information System (ODIS) and Ocean InfoHub (OIH)
  - A (meta)data-driven, co-governed, and federated “hello world” pilot of a co-designed interoperability layer for the Decade (LAC, Africa, PSIDS, and others)
  - Deploying recommendations with significant early successes and reusing prevailing search conventions (schema.org) as a prelude to deeper interoperability
- Follow up working groups on IODE projects, policies, and strategies, for example:
  - IODE XXVI Group 4: IODE contribution to the UN Decade of Ocean Science for Sustainable Development (agenda item 6.2)
  - Contributions to the Ocean Decade Data Coordination Group
  - ODIS Steering groups Decade Programme