

Annex 3: Terms of Reference and Budget Needs Estimate – Data Sharing Decade Coordination Office

Ocean Decade Coordination Office for Ocean Data Sharing

Terms of Reference

The following document details the terms of reference for the **Decade Coordination Office for Ocean Data Sharing**, in accordance with the decision made during the Meeting of the IODE Management Group on 22 March 2022 (ref. Summary Report IOC/IODE-MG-2022/3, dated 28 March 2022), and based on the proposal submitted by the IODE Project Office to the Decade Coordination Unit on 21 February 2022.

Overview

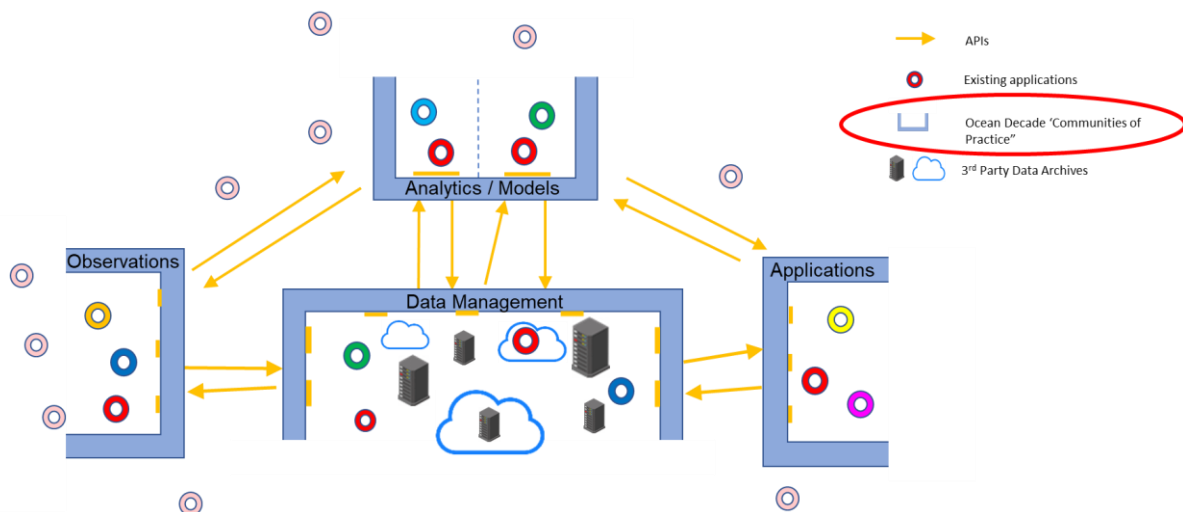
The core focus of the Decade Coordination Office (DCO) for Ocean Data Sharing will be on supporting the Ocean Decade Challenge 8: *“Through multi-stakeholder collaboration, develop a comprehensive digital representation of the ocean, including a dynamic ocean map, which provides free and open access for exploring, discovering, and visualizing past, current, and future ocean conditions in a manner relevant to diverse stakeholders.”* The DCO will thus support the development of the capacity, functionality and interoperability of the management of and accessibility to ocean data, information and knowledge.

The DCO aims to manage the Data Sharing component of the digital ecosystem needed for the Ocean Decade to be successful. Thus, it will also support, interact and overlap with the other components of the digital ecosystem and therefore enables challenges 7 and 9.

- Challenge 9: *“Ensure comprehensive capacity development and equitable access to data, information, knowledge and technology across all aspects of ocean science and for all, stakeholders.”*
- Challenge 7: *“Ensure a sustainable ocean observing system across all ocean basins that delivers accessible, timely, and actionable data and information to all users.”*

See also Figure below that illustrates the Ocean Data “data structure” which demonstrates the importance of “quality” data management and sharing to ensure the reliability of data products such as models and applications.

Concept for an Ocean Decade digital eco-system ‘structure’



The activities of this DCO will promote sustained digital interoperability between the data, information, and digital knowledge generated by initiatives across the Decade. It will bring together digital stakeholders – across

regions, organizational scales, and capacity levels – to negotiate and establish clear agreements (from high- to low-level) on their co-development of the Decade’s digital ecosystem.

The DCO for Ocean Data Sharing will continue coordinating activities towards cooperation between both UN and non-UN organizations which were started by IODE in 2020 (two workshops were held to bring together UN organizations and non-UN organizations to share information on their data activities and data holdings, and to invite them to collaborate under the Decade).

The DCO’s activities will support a transparent, structured, intelligent, interoperable, and functional co-development of the Decade’s initial interoperability strategy described in the Implementation Plan:

“No single or central digital infrastructure or system will be sufficient to meet the needs of the Decade. Implementation of the digital ecosystem will require inclusive and outward-facing co-design and co-construction of a distributed, integrated and interoperable set of digital solutions that will form components of the overall ecosystem. Collectively these components will represent the socio-ecological dimensions of the ocean, including the numerous pathways to support sustainable development. Implementation will include concrete efforts to bridge efforts across global, regional and local scales.” [para 48 of the Decade Implementation Plan Version 2.0]

“The Decade digital ecosystem will catalyse cooperation between data generators and users from diverse stakeholder groups including governments, UN entities, scientists, planners, decision-makers, as well as industry and the public. The digital ecosystem and its component parts will support users in accessing, understanding, assessing, and providing impactful feedback on raw and processed data, information and knowledge so that these better meet their specific needs.” [para 51 of the Decade Implementation Plan Version 2.0]

Building on this implementation vision and in line with the early considerations of the Ocean Decade Data Coordination Group, the DCO’s activities will ensure that well-defined, transparent and functional digital value chains are maintained and inclusively interlink the Decade’s stakeholders in a robust digital commons. These multifaceted value chains will be complex, and the DCO will leverage data-driven interoperability diagnostics to assess and strengthen links between the observations and operations communities, modelling communities, digital twin initiatives, and other key stakeholders such as local communities and indigenous data stewards. Early on, this coordination will leverage existing collaborations between IODE and initiatives such as OA, HAB, GOSR, StoR, and GOOS to pilot and tune the approach.

In addition, the DCO will, through its OceanTeacher Global Academy (OTGA), Ocean InfoHub (OIH) and other related IODE projects (which have also been submitted as Decade Actions) work towards equitable participation of all IOC Member States (and related regional organizations) in the Decade data activities, thereby also furthering the mission described in the Capacity Development chapter of the Decade Implementation Plan. These activities will anchor broader networks of data, information, and capacity sharing, while maintaining an overall strategic direction continually shaped by partner feedback.

Terms of Reference

The DCO for Ocean Data Sharing shall carry out the following actions in support of the Decade:

Coordination of Actions and Stakeholder Facilitation and Engagement

- a) Organization of (online) meetings for stakeholder communities (grouped or joint and in close cooperation with the Data Coordination Group) to discuss the targets of the data chapter of the Decade IP, required infrastructure and methodologies, possible contributions from stakeholder communities, benefits to stakeholder communities,
- b) Engage and coordinate with the Data Coordination Group and the Technical Implementation Coordination Group that will be implemented within the Data Coordination Platform set up by the DCU,

- c) Organization of (online) meetings with leaders of related, relevant Decade DCCs, DIPs (Decade Implementing Partners), and DCOs, Programmes and Projects to ensure coherent actions and complementarity and facilitate this through the community of practice on the global stakeholder forum,
- d) Establishment of technical or strategic sub-groups to co-design required actions in response to Calls for Decade Actions with attention to end user engagement and end user needs,
- e) Facilitate Decade Actions (eg through the IODE/GOOS OBPS) in support of best practices for data management and sharing, scientific coordination and planning, tools and resources for developing capacity on research data management and sharing, and resources for data publishing, sharing and interoperability,
- f) Promote cooperation with relevant IOC Programmes, related Projects, other relevant UN entities and stakeholder groups in order to advance the implementation of the Decade,
- g) Support capacity development under the remit of the DCO which can be provided through existing activities such as OceanTeacher Global Academy and related activities
- h) Maintain an updated list of relevant Decade Programmes, Projects, and Activities, as well as Decade Contributions, when they are relevant for the DCO's scope of work, including information on relevant contacts, status, partners, and its expected activities and outcomes.
- i) Proactively facilitate the structuring and engagement of a Communities of Practice around ocean data sharing via the Global Stakeholder Forum to facilitate dialogue and exchange between other Decade stakeholders.

SUPPORTING DECADE CALLS FOR ACTION

- a) Based upon requirements identified during stakeholder meetings, draft calls for action to contribute to the expected outcomes (facilitate discussions in CoPs on gaps and needs in the digital ecosystem to inform the scoping of future calls for decade actions in close cooperation with the DCG).
- b) Discuss and coordinate draft calls with DCU (as well as with DCCs and ongoing programmes, projects to ensure complementarity). CFDA's will be launched by DCU – role of DCO is to provide input to scoping and provide input to review process for programmes to inform endorsement decisions.
- c) The IODE Project Office, IODE Committee and active IODE projects regularly publish and review calls for proposals for consultants and sub-contractors, so mechanisms are in place.

MONITORING & REPORTING

- a) Organize regular reporting by all DCCs, DIPs, programmes and projects within the scope of work of the DCO and in line with the requirements of the Monitoring and Evaluation Framework of the Ocean Decade
- b) Provide advice and data to the DCU on monitoring and evaluating progress of the Decade Programs, Projects and Activities under its scope of work.
- c) Deliver an annual workplan to the DCU and the IODE Management Group on the first semester of each year, setting out the DCO's priorities, tasks, goals, and timing for the year, to make sure there is alignment with the Ocean Decade goals, the other DCOs/DCCs, and other relevant Decade stakeholders.
- d) Present an annual financial and activity report for the previous calendar year, to be presented during the first trimester to the DCU and the IODE Management Group.

- e) Contribute to Decade annual reporting, including the preparation of programmatic / geographic summaries of Decade Actions under their scope of work, case studies or more in-depth thematic or geographic analyses.

COMMUNICATIONS

- a) Raise awareness and visibility of the Decade amongst diverse stakeholder groups and coordinate targeted communications activities in line with branding and messaging guidelines provided by the Decade Coordination Unit
- b) Organize regular communication of all activities undertaken by DCCs, programmes and projects under the scope of work of the DCO, through appropriate communication and public awareness channels
- c) Ensure communication channels between the DCO for Ocean Data Sharing, other DCOs and the DCU to ensure overall coordination of communication on data and information across all IP chapters.

MOBILIZATION OF RESOURCES

- a) In close coordination with the DCU, DCCs, programmes and projects under the scope of the DCO, and supported by relevant communication efforts, undertake resource mobilization efforts to fund endorsed Decade projects and programmes through financial or in-kind contributions by member states, other organizations, private sector and foundations
- b) Coordinate Resource Needs Assessments of endorsed programmes and projects under the responsibility of the DCO in line with guidance provided by the DCU
- c) Seek partnerships, voluntary commitments, sponsorship and funding to strengthen the implementation and impact of a world-class digital data eco-system.

OTHER AGREED FUNCTIONS & RESPONSIBILITIES

- a) Align strategy development and implementation with:
 - i. The other DCOs, DIPs and DCCs that are established within the Decade that focus on the observation, management, analysis and /or delivery of data and information.
 - ii. The Data Coordination Group and the Technical Implementation Coordination Group that will be formed under the Terms of Reference of the Data Coordination Platform, and with the Data & Knowledge Management Officer of the DCU.
- b) Encourage adherence to best practices (including existing data policies and terms of use) and FAIR data principles within the Decade Actions.

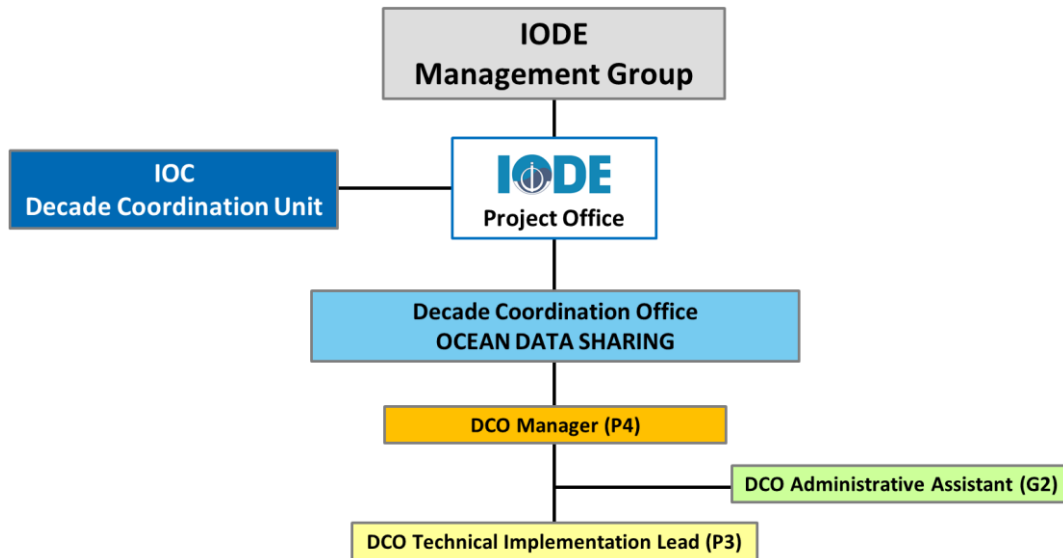
Governance

The IODE programme's governing body is the IODE Committee, composed of heads of NODCs, ADUs and AIUs. IOC Member States, in addition, provide in-kind support to the IODE programme through their national data and information centres, which are members of the IODE Committee.

The IOC Project Office for IODE was formally approved for establishment by the IOC Assembly at its 22nd Session (2003) through Resolution XXII-7 and officially inaugurated on 25 April 2005. It is the decentralized secretariat of the IODE Programme. Based in Oostende, Belgium, it coordinates all project activities of the IODE Programme, as well as the IOC capacity development strategy.

The DCO for Ocean Data Sharing will be hosted by the IODE Project Office to ensure a non-duplicative coordination role and to benefit from available in-kind resources (e.g. office space, etc.). The DCO will report to the IODE Project Office on regular operations and will report to the DCU and IODE Management Group on major decisions regarding funding, scope and direction, and to report on progress, similar to other IODE components.

The DCO’s team includes a full-time Manager who will manage the office and provide high-level support for its activities; a Technical Implementation Lead; and an Administrative Assistant. The DCO Manager will act as the focal point, responsible for maintaining communications with other Decade organizations, such as the DCU and other DCOs/DCCs. The organizational chart below provides an overview of the lines of authority and communication of the DCO team:



Other Supporting Institutions

We note that all members of the IODE network (see <https://www.iode.org/nodc> and <https://www.iode.org/adu>) should be considered as partners as they will all contribute their data systems and expertise. The IODE as a programme has established a global network of 100 oceanographic data centres and information centres. It regularly approaches IOC Member States to join the global network and often partners with sub-national entities.

In addition, the expanding network of Ocean InfoHub/ODIS network (<https://oceaninfohub.org>) should be considered as partners; these include member state institutions, regional and international organizations, IOC regional offices and individual experts.

Finally, several IODE members may be willing to provide financial or in-kind (staff) assistance for the operation of the DCO. This would create a long-term sustainable resource basis to ensure the long-term operation of the DCO, preferably in combination with cash funding and contractual staff.

Resourcing

Table 1 below provides an indicative budget for the implementation of the Ocean Data Sharing DCO over the next 5 years. Resourcing and/or funding is expected to be obtained from various governmental, philanthropic or private organisations.

This budget may be increased, reduced, or modified during the DCO’s tenure, following consultation and agreement with the IODE Management Group and DCU.

Table 1. Proposed budget for DCO implementation

Resources	Estimated amount in US\$					Total
	2022	2023	2024	2025	2026	
Staffing costs / resource needs (1 P4 / 1 P3 / 1 G2)	444,996	444,996	444,996	444,996	444,996	2,224,980
Operational costs (including comms)	216,000	216,000	226,000	227,500	237,500	1,123,000
Total yearly	660,996	660,996	670,996	672,496	682,496	3,347,980