**Decision A-33/3.4.2**

**International Oceanographic Data and Information Exchange**

The Assembly,

**I – 28th Session of IODE, 12-14 March 2025**

1. Having examined the Executive Summary Report of the 28th session of the IOC Committee on International Oceanographic Data and Information Exchange (IODE-28, Santa Marta, Colombia, 12–14 March 2025) (IOC/IODE-28/3s),
2. Endorses the report of the 28th session of the IOC Committee on International Oceanographic Data and Information Exchange; [Germany]
3. Notes the decisions taken by IODE-28, inter alia the decision to establish an Inter-sessional Working Group to Enact a Rapid Response Mechanism for Emerging Issues; [Germany]
4. Strongly encourages Member States to establish IODE National Oceanographic Data Centres (NODCs) or Associate Data Units (ADUs) or ODIS nodes;
5. Notes that the regular budget for these activities will be identified as part of the overall Resolution on Governance, Programming and Budgeting matters of the Commission;

**II – Revision of the Terms of Reference of the Ocean Data and Information System (ODIS)**

1. Recalling the establishment, by the IOC Assembly at its 31st session, through Decision A-31/3.4.2, of the IOC Ocean Data and Information System Project (ODIS),
2. Recognizing that a major component of the ocean data and information system landscape is not linked to the IOC and the need to collaborate with those communities/systems in order to achieve improved accessibility, unrestricted use and interoperability of data and information,
3. Also recognizing the key role that distributed and interoperable data, information, and digitized knowledge resources will have during the UN Decade of Ocean Science for Sustainable Development,
4. Recallingthat the IODE Committee, at its 27th session, approved the designation of IODE activities as Programme Components, Programme Activities and Projects, considering that this should make IODE activities more attractive to partners for cooperation, and decided to designate ODIS, OBIS and OTGA as Programme Components and to take this into consideration in the work plan and budget, 2023–2025; [Germany]
5. Considering that the rapid growth of the ODIS network as a federation of data systems requires an efficient and agile governance mechanism, focused on co-design, user requirements and community feedback,
6. Decides to revise the ODIS terms of reference as attached in Annex 1, the terms of reference of the ODIS Steering Group as attached in Annex 2, and establishment of the ODIS Operations Group as attached in Annex 3;
7. Invites all IOC programmes, IOC regional subsidiary bodies and partner organizations to collaborate in ODIS by sharing their ocean data and information with ODIS;

**III – Advancing Ocean Data Sharing for Sustainable Development in areas within national jurisdiction.**

1. Recalling:
2. that the *IOC Data Policy and Terms of Use* was published in 2023 and recommends the findable, accessible, interoperable and reusable sharing of ocean metadata, data and products with minimally restrictive and voluntary common use licenses,
3. that the WMO unified Data Policy (Resolution 1,CG-EXT (2021)) WMO-No. 1281 mandates the WMO members to share ocean data as follows: Members shall share observations of the GOOS physical essential ocean variables (EOVs) and GCOS physical ocean domain essential climate variables (ECVs) made as part of a GOOS observation network, programme or project and should share all other EOVs and Ocean based ECVs further notes that this is a national commitment that is supported of the IODE Action,
4. the importance of sustainable ocean management as emphasized in the *Implementation Plan of the United Nations Decade of Ocean Science for Sustainable Development (2021–2030)* endorsed at the 75th United Nations General Assembly in 2020,
5. Recognising that:
6. there is a critical role for data in supporting and allowing science-based decision making, including effective marine spatial planning,
7. the need for sharing ocean data is also recognised within the United Nations Convention on the Law of the Sea (Part XIII) and Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (Parts II, V, VI),
8. the private sector holds and is actively collecting a vast reservoir of valuable ocean data, acquired through commercial activities in support of marine resource management, offshore energy exploration and development, marine infrastructure development and monitoring, and scientific research in every ocean basin,
9. the sharing of data collected by private sector bodies offers the possibility of immense benefits to science, policymakers, and the private corporations themselves,
10. only a fraction of ocean-related data from private sector industries is shared publicly,
11. Noting that the sharing of these data collected by private industry using the *IOC Data Policy and Terms of use (2023)* would dramatically increase the volumes of data available for monitoring, understanding and modelling the ocean advancing scientific research and improving data-driven decision making in sustainable ocean management,
12. Encourages Member States to support the implementation of the *IOC Data Policy and Terms of Use (2023)* for the sharing of data for all-ocean related data collection[Argentina] in their territorial waters and exclusive economic zones;
13. Recognizes [USA] / Recognizing [Argentina: move this para up] that data sharing practices will strengthen the collective ability of all to meet the goals of the UN Ocean Decade [Argentina; USA];
14. Invites [Argentina]Member States to collaborate with industry, research and data infrastructure stakeholders to standardise ocean data sharing practices through the establishment of national data-sharing policies, regulations and permissions for all ocean-related activities conducted within their territorial waters and Exclusive Economic Zones, including through the inclusion of the provisions of the IOC Data Policy and Terms of Use in licensing and permitting within their jurisdictions;
15. Affirming [Argentina: move this para up] that sustainable ocean management requires unlocking the large volume of ocean data collected and held by private industry for collective benefit to scientific research, policy making and industry operations;
16. Establishes [Germany] an IODE Inter-sessional Working Group on Advancing Ocean Data Sharing for Sustainable Development in areas within national jurisdiction (IWG-DSNJ) with terms of reference in Annex 4;

**IV – The UNESCO/IOC Project Office for IODE in Ostend, Belgium**

1. Recalling**:**
2. Assembly Resolution XXII-7 (2003) which accepted with appreciation the offer of the Government of Flanders (Kingdom of Belgium) and the city of Ostend to host the IODE Project Office,
3. Resolution XXII-1 which adopted the *Guidelines for the Establishment of IOC Decentralized Offices,* subsequently published in Document IOC/INF-1193,
4. Noting with appreciation:
5. the positive results of the review the IOC Project Office for IODE (2025),
6. that the IOC Project Office for IODE has successfully continued the implementation of its objectives:

a) the successful development and hosting of data/information products/services in particular OBIS, ODIS and OTGA, which all form key elements of the global digital ecosystem now under development for the UN Decade of Ocean Science for Sustainable Development,

b) the successful development and hosting of the training system OceanTeacher Global Academy,

c) the continued management of an excellent international meeting and conference centre,

1. the considerable financial support provided by the Government of Flanders (Kingdom of Belgium) to the IOC in general and to the IOC Project Office for IODE and the excellent in-kind support provided by the Flanders Marine Institute (VLIZ),
2. the complementary nature of the activities carried out at the Project Office and the financial support provided by the Government of Flanders (Kingdom of Belgium) through the UNESCO/Flanders Fund-in-Trust for the support of UNESCO's activities in the field of Science (FUST),
3. the contribution by the IOC Project Office for IODE (as the IODE secretariat and Meeting & Training Facility) to the further development of Ocean Data and Information Networks in developing regions,
4. the efficient and effective management of the Project Office and the professionalism of its Staff,
5. Expressingits gratitude to the Government of Flanders (Kingdom of Belgium) and the Flanders Marine Institute (VLIZ) for the considerable support provided, both financially and by hosting of the Project Office, as from April 2005,
6. Invites the Government of Flanders to continue hosting the IOC Project Office for IODE as well as its considerable financial and in-kind contributions and support;
7. Decides (conditionally to the Government of Flanders agreeing to continuing the hosting) that:
8. the IOC Project Office for IODE in Ostend, Belgium be continued;
9. the Memorandum of Understanding between UNESCO-IOC and the Government of Flanders (Kingdom of Belgium) through the Flanders Marine Institute (VLIZ) be renewed.

Annex 1 to Dec. A-33/3.4.2

**Ocean Data and Information System (ODIS)**

Terms of Reference

Objectives: The objectives of this Programme Component are to:

1. develop in collaboration with programmes across the IOC, the IOC Ocean Data and Information System (ODIS) as a foundational digital ecosystem where users can discover and access data and information products, services, and other assets provided by Member States, projects and other partners associated with IOC;
2. work with partners, linked and not linked to the IOC, to improve the accessibility and interoperability of existing data and information and digital service orchestration across data systems;
3. promote the collective maturation of the ODIS digital ecosystem towards greater interoperability and seamless, trusted, and secure data and information flows across partner systems (e.g. towards data fabric and data space models).

Annex 2 toDec. A-33/3.4.2

**IODE Steering Group for the IOC Ocean Data and Information System (ODIS-SG)**

Terms of Reference

The ODIS-SG will have the following Terms of Reference:

1. In coordination with the ODIS Secretariat, propose a set of strategic priorities for one-, five-, and ten-year time horizons for the ODIS Programme Component, revised each year;
2. Review high-level workplans for the ODIS Programme Component, proposed by the ODIS Operations Group (ODIS-Ops), proposing changes where needed;
3. Advise the ODIS Secretariat and ODIS-Ops on relevant developments in national, regional, global, or sectoral data and information policy, national and international data law and practice which may impact ODIS operations;
4. Propose and, where feasible, facilitate coordination between ODIS Secretariat and new stakeholder or other interest groups;
5. Identify funding sources to further develop ODIS.

Membership: The Steering Group will be composed, *inter alia*, of:

* A Chair or co-Chairs of the Steering Group(\*);
* Representatives from IOC Programmes;
* Invited Experts, prioritising the coverage of regions, digital capacity levels[1], socio-economic sectors, UN Ocean Decade Actions, and key groups pursuing, consolidating, or maintaining digital sovereignty;
* Representatives of major interest groups and selected ODIS partners (based on priorities following an open call) including regional/international organisations developing multi-year / decadal data strategies or with unique insight into strategically relevant issues;
* ODIS programme manager;
* IODE Secretariat;
* Representatives from relevant UN Ocean Decade Decade Coordination Offices and Collaborative Centres, and the Decade Coordination Unit

Membership will be for a period of one year (renewable).

(\*) A Chair and Co-Chair of SG-ODIS will be elected at the end of the first meeting (and thereafter annually) by the members of the Group in accordance with the Rules of Procedure for IODE Programme Components, Programme Activities and Projects (IOC Manuals and Guides, 91).

[1] The standing capacity of an entity to participate in digital activities
Annex 3 toDec. A-33/3.4.2

**Operations Group for the IOC Ocean Data and Information System (ODIS-Ops)**

Terms of reference

Tasks:

1. To ensure the uninterrupted operation of ODIS Nodes[2] by remedying issues identified by the ODIS-SG, ODIS Secretariat or by other ODIS Partners.
2. To promote broader and deeper interoperability between all ODIS Nodes, beginning at metadata / asset catalogues, and progressing to subject data, services, and other capacities as identified;
3. To guide the ODIS Nodes, and ODIS as a whole, in fulfilling the UN Decade of Ocean Science for Sustainable Development’s Data and Information Strategy and its Implementation Plan, and - more broadly - addressing its Challenges;
4. To hold monthly meetings (online) not exceeding 60 minutes, distributed across time zones of the Group’s members;[3]
5. To contribute to, or produce status briefings on, the state of the ODIS Federation (i.e. the collection of ODIS partner organisations) as a whole, and of individual ODIS Nodes, detailing any issues limiting data and information exchange, as well as any opportunities to enhance it;
6. To identify and work to resolve any issues relating to data and information exchange and cross-Federation interoperability, by posting and pursuing issues on the ODIS-Arch GitHub repository[4] or another appropriate repository;
7. To make all members of ODIS-Ops aware of regionally, nationally, or locally specific requirements, regulations, or legal frameworks regarding data access and/or exchange which may affect the operations of the ODIS Federation;
8. To identify and describe opportunities for ODIS to provide utility to (potential) user groups and other;
9. To review and regulate the addition, suspension, or removal[5] of ODIS Nodes to/from the Federation;
10. To report operational affairs to the ODIS Chair, SG-ODIS and ODIS Secretariat, and consult these for strategic and programmatic guidance.

Membership

Membership of ODIS-Ops shall initially include:

- ODIS Chair or Co-Chairs(\*)

- ODIS Programme Manager (ODIS Secretariat)

- One technical expert which has been selected by each ODIS Partner operating at least one ODIS Node

- External experts -in advisory roles- in areas relevant to the activities of the Group

- Representatives of other IODE programme components and/or IODE programme activities or IODE Projects

- Other, ad hoc members, as agreed by the regular membership.

Membership will be for a period of one year (renewable).

(\*) A Chair and Co-Chair of ODIS-Ops will be elected at the end of the first meeting (and thereafter annually) by the members of the Group in accordance with the Rules of Procedure for IODE Programme Components, Programme Activities and Projects (IOC Manuals and Guides No. 91).

[2] An “ODIS Node” is a data system which provides a machine-to-machine interface to the digital assets each ODIS Partner wishes to share. An ODIS Node 1) has a current and valid registration in the ODIS Catalogue of Sources (ODISCat), 2) provides sufficient metadata in ODISCat for its asset catalogues to be discovered and processed, 3) maintains its asset catalogues in a form which is interoperable across the ODIS Federation, and in compliance to the ODIS Architecture

[3] Where resources allow, ad hoc, in-person meetings may be organised, particularly to more effectively resolve or pursue regional or thematic issues or opportunities.

[4]<https://github.com/iodepo/odis-arch>

[5] ODIS Nodes may be suspended or removed if they begin producing erroneous, invalid, or poor quality (meta)data, or if their products are incompatible with the ODIS Architecture and interoperability conventions. Nodes may be reinstated as soon as any outstanding issues are resolved and interoperability is verified.

Annex 4 to Dec. A-33/3.4.2

**IODE Inter-sessional Working Group on Advancing Ocean Data Sharing for Sustainable Development in areas within national jurisdiction (IWG-DSNJ)**

Terms of Reference

Objectives:

1. Engage with and encourage the implementation by Member States of Decision A-33/3.4.2 [Germany] through providing practical advice and developing case studies,
2. Document the implementation of the *IOC Data Policy and Terms of Use (2023)* as outlined in the recommendation,
3. Disseminate successful examples of national policies which include effective ocean data sharing, regulations and permissions for all ocean-related activities conducted within their territorial waters and Exclusive Economic Zones,
4. Report progress on the adoption by Member States of the recommendation to the 29th session of the IODE Committee and the 59th session of the Executive Council. [Germany]

Modalities: The IWG will normally conduct its business through entirely electronic means. Should any face-to-face meetings be deemed necessary, participation will be optional with alternative arrangements for electronic participation and in-person participation will be entirely self-funded.

Expected meeting frequency will be at least once per month or as required by ongoing actions. The IWG will operate its own secretarial tasks.

Membership**:** Initial membership will be composed of:

* One of the IODE co-chairs, and/or a representative of the IODE secretariat
* Data & Knowledge Management Officer, representing the Decade Coordination Unit, the Data Coordination Group and the Corporate Data Group
* Lead of the Decade Coordination Office for Ocean Data Sharing
* Heads of Decade Regional Coordination Offices and Collaborative Centres
* Experts nominated by IOC Member States through a call by circular letter that will define the expertise required. [Germany]