Draft IOC Data Policy and Terms of Use (2023)

(version 9, 23 September 2022)

(as revised by IWG-DATAPOLICY 23/9/2022)

(FOR DECISION: add preamble on history of IOC data policy, WMO and others; reference to need for data sharing, UNESCO open science). -when publishing policy, add this also in the document. Note that preamble will be prepared for iODE-XXVII which will then be used in draft decision/ (check also <https://library.wmo.int/doc_num.php?explnum_id=11256> )

[albert to provide wording on link between GOOS and IODE]

## Section 1. Preamble

The timely, open and unrestricted international sharing, in both real-time and delayed mode of ocean metadata, data and products is essential for a wide variety of purposes and benefits including scientific research, innovation and decision making, the prediction of weather and climate, the operational forecasting of the marine environment, the preservation of life, economic welfare, safety and security of society, the mitigation of human-induced changes in the marine and coastal environment, as well as for the advancement of scientific understanding that makes this possible.

Metadata, data and products should be accessible, interoperable and openly shared with minimum delay and minimum restrictions.

## Section 2. Purpose

The purpose of this data policy is to outline the requirements with respect to sharing, access, preservation, and attribution to facilitate the broad use and reuse of metadata, data and products.

## Section 3. FAIR & CARE principles

To support knowledge discovery and innovation both by humans and machines and to acknowledge indigenous data governance, data should meet the FAIR Guiding Principles (Findable, Accessible, Interoperable and Reusable)[[1]](#footnote-1) and the CARE Principles (Collective Benefit, Authority to Control, Responsibility, Ethics)[[2]](#footnote-2) to the greatest extent practicable.

## Section 4. Conditions of use

Data should be licensed (respecting Section 8) under a minimally restrictive and voluntary common-use licence[[3]](#footnote-3) that grants permission, ensures proper attribution (for example, citable using a persistent identifier) and allows others to copy, distribute and make use of the data.

## Section 5. Data Repositories and the ioc ocean data and information system (ODIS)

Data should be quality controlled (using best practices or standards), accompanied by metadata and stored in an openly discoverable and accessible data repository through data services. Member States shall encourage convergence and interoperability and, where possible, use IODE data centres (National Oceanographic Data Centres or Associate Data Units) or other IOC programme related data centres that share metadata and data using the IOC Ocean Data and Information System (ODIS). ODIS is an interoperability layer and supporting technology to allow existing and emerging ocean data and information systems, to interoperate with one another.

## Section 6: Secure long-term data archives

To support long-term and secure archival, data and associated metadata should be submitted, to the best practicable degree, to IODE’s World Ocean Database (WOD), the Ocean Biodiversity Information System (OBIS), Global Sea Level Observing System (GLOSS), other IOC related global data archives, and data centres linked to the World Data System (WDS), their successors or other global data archives.

## Section 7. Access restrictions

Data and associated metadata should be made available with minimal restrictions on use unless there are valid reasons to restrict access. Legitimate reasons to restrict access to, and reuse of, data include, *inter alia*, privacy and confidentiality, protection of species, populations or habitats of concern, and national security.

## Section 8. Data sharing policies of Member States

This Policy acknowledges the right of Member States and data owners to determine the terms of metadata, data and products sharing in a manner consistent with national jurisdictions, international conventions, and treaties, where applicable.

## Section 9. Data and metadata sharing guidelines

IOC programmes, projects as well as other communities of practice should develop and/or apply, where applicable, detailed metadata, data and products sharing guidelines that are consistent with this IOC Data Policy and Terms of Use.

## Section 10. Definitions

**‘Data’** is a set of values, symbols or signs (recorded on any type of medium) that represent one or more properties of an entity[[4]](#footnote-4).

**‘Metadata’** is 'data about data' describing the content, quality, condition, and other characteristics of data that allows their inventory, discovery, evaluation or use.

**‘Timely’** in this context means the distribution of data and/or products, sufficiently rapidly to be of value for a given application

‘**Openly**’ means data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike. (Open Definition)

‘**Product’** means a value-added enhancement of data applied to a particular use.

*Note: an instruction will be added to the draft decision to instruct the IWG or IODE to develop Guidelines for the development of detailed data and metadata sharing guidelines*

1. Wilkinson, M., Dumontier, M., Aalbersberg, I. *et al.* The FAIR Guiding Principles for scientific data management and stewardship. *Sci Data* **3,**160018 (2016). <https://doi.org/10.1038/sdata.2016.18> [↑](#footnote-ref-1)
2. CARE Principles for Indigenous Data Governance. <https://www.gida-global.org/care> [↑](#footnote-ref-2)
3. For example: the Creative Commons family of licences <https://creativecommons.org/about/cclicenses/> [↑](#footnote-ref-3)
4. [Ocean Decade Implementation Plan](https://www.oceandecade.org/wp-content/uploads/2021/09/337567-Ocean%20Decade%20Implementation%20Plan%20-%20Full%20Document) [↑](#footnote-ref-4)