

IOW Data Policy

The Leibniz-Institute for Baltic Sea Research (IOW) has a policy on data in order to:

- a) Ensure the continuing availability of research data of long-term value for research, teaching and for wider exploitation for the public good, by individuals, government, business and other organizations;
- b) Support the integrity, transparency and openness of the underlying research;
- c) Help in the formal publication of data sets, as well as enabling the tracking of their usage through citation and data licenses;
- d) Meet relevant legislation and government guidance on the management and distribution of environmental and research data.

This policy will be reviewed at regular intervals to ensure it keeps pace with scientific requirements and data management best practice.

1 Definitions

IOW distinguishes between three types of data: (a) Environmental Data, (b) Experimental Data, and (c) Modeling Data. These different data types are summarized under the name *Research Data* in the following.

IOW defines *Environmental Data* as those data obtained by observation and sampling of the natural world. *Environmental Data* can always be geo-referenced. Note, that according to this definition, the laboratory analysis of geo-referenced samples yields *Environmental Data*.

Experimental Data are generated from experiments that provide an idealized representation of certain aspects of the natural world under controlled conditions.

Finally, *Modeling Data* are derived from a mathematical representation of the natural world in the form of mathematical equations and numerical algorithms. The generation of *Modeling Data* may involve the use of *Environmental Data* and *Experimental Data*, for example to provide model boundary, initial conditions, and model parameters.

All three data types are associated with **Metadata**, which describe the context of the data. This may include geographic information, description of analysis methods, sensor types, project framework, licensing conditions, etc.

2 Key Principles

The present version of the IOW data policy only covers the use of *Environmental Data* obtained from IOW data acquisition activities that are either fully or partially funded by IOW, by research funding agencies or foundations, or other third parties. Data originally provided to IOW by a third party are not subject of this policy.

Environmental Data as defined above are considered a public good and they will be made available for others to use under certain conditions. IOW is committed to supporting long-term research data management to enable safe storage and continuing access to these data either directly or by collaboration with international data base services.

IOW will supply its *Environmental Data* for free, apart from a few special cases as detailed in the policy.

IOW requires that all *Environmental Data* must be submitted to the IOW data management system for long-term availability and dissemination as detailed in the policy.



2.1 Data Access and Licenses

IOW grants access to its research data in the following form and under the following conditions.

1. All IOW *Research Data* held by IOW's data management system will normally be made openly available to any person or any organization who requests them. If it is proposed to restrict access to any data we will explain why.
2. To facilitate the international exchange of data, all IOW *Metadata* will be made available under the international ISO 19115 standards for geo-referenced metadata.
3. To protect the research process, IOW will allow its researchers exclusive access to IOW *Research Data* for a limited period for scientific analysis and publication. For all data, except the *Metadata*, it ends three years after data acquisition. *Metadata* will be made available immediately after their submission to IOW's data management system.

Justified exceptions to the above terms are subject to the decision of IOW's data management commission.

4. All IOW *Research Data* made available by IOW's data management system will be accompanied by an international Creative Commons (CC) data license of type CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>). This license allows the user to copy and redistribute IOW's environmental data in any medium or format and to remix, transform and build upon them for any purpose, even commercially. It requires, however, that IOW researchers are given appropriate credit. Therefore, the following reference is mandatory: "*Data originator: Leibniz Institute for Baltic Sea Research*". In case a *Digital Object Identifier* (DOI) is linked to the data set, this has to be indicated as well. Furthermore, a link to the license must be provided and any changes to the data must be indicated. The indication of changes may be done in any reasonable manner, but not in any way that suggests the licensor (IOW) endorses the user or the use of IOW data.

5. Data originally provided to IOW by a third party may have their own access and license conditions, which restrict how these data, can be distributed and used.
6. All IOW data held by IOW's data management system will be supplied for free except for large or complex requests where costs of supply may be charged, or where third-party license conditions either prevent such free supply, or require us to make specific charges.
7. IOW data underpinning scientific publications (*Publication Data*) will be made publically available according to the publishers' requirements, however, latest at the time of publication. *Publication Data* will be assigned a *Digital Object Identifier* (DOI) and a data license as described under point 4 above.

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Direktor IOW

