



## Agenda Item 7: Data Policy

### Document 7.1: Overview of relevant existing data policies

The timely, free and unrestricted exchange of oceanographic observation data is essential for the efficient acquisition, integration and use of ocean observations gathered by EuroGOOS members and European projects for a wide variety of purposes. There is an increasing demand and need to formulate a European Data Policy or Data Exchange Agreement to ensure data flows within ROOSes and to data aggregators such as CMEMS, SDN and EMODnet. Currently the European marine data exchange is based on goodwill and trust, but it's a vulnerable system. Existing data exchange agreements within the ROOSes are outdated or simply don't exist. The status of ROOS data exchange agreements, where they exist, are summarized in the following figure.

#### ROOS Data Exchange Agreements

**IBIROOS** has a DEA (2007) but it's outdated. Partners, data and specifications (both in situ and models) are listed in the DEA. At the time only 9 of 22 institutes signed the DEA. The IBIROOS DEA is rather strict with a number of direct commitments. An update of the DEA may be considered.

**MONGOOS** has a DEA in place however it is outdated (2007) At the time, the DEA stimulated an increase in number of institutes sharing data. In this regard the DEA has fulfilled its purpose. Many MONGOOS members signed the agreement. The DEA is very general with no real commitment. New MONGOOS members have not signed the agreement – only the members at the time of producing the DEA in 2007. The usefulness to update the DEA will be discussed and considered



**BOOS** has no valid DEA in place but a draft version (2014) of an "Agreement on Operational Ocean Observations Programme" with commitments on all BOOS members to share their observational data with BOOS has been produced suggesting that an agreement is in principal in place, however not signed. It will be considered to revisit the draft agreement and make necessary updates.

**Arctic ROOS** has no data agreements and no DEA. The INTAROS project will follow the data policies from various European initiatives

**NOOS** no DEA in place

Data policies are often seen as complicated. In the past, data policies were often very complex with numerous clauses. Nowadays, data policies tend to be recommendations and are kept short and fairly non-complicated. One example is the IOC Oceanographic Data Exchange Policy, a policy most EuroGOOS member countries have agreed on. Another example is within the JERICO-NEXT project where a *Recommendation on a free and open data access policy*, has been delivered where it was agreed to keep the policy as simple as possible, without the requirement of signatures from the data providers and consisting of a small number of agreed statements. This policy will also ensure that data and data providers are given maximum visibility, with data and metadata made available through the main marine

data infrastructures including the EuroGOOS ROOSes and SeaDataNet's network of NODCs, as well as being accessible via CMEMS and EMODnet and its thematic portals.

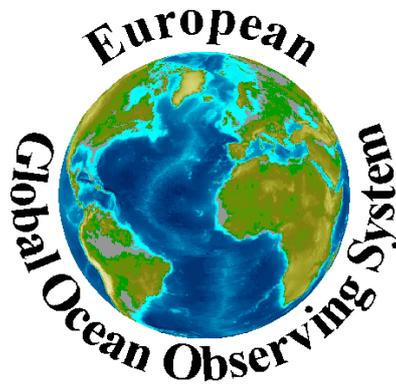
In addition, some projects, such as SeaDataNet, have their own data policy and of course also on national/institute level, agreements are in place.

In fact EuroGOOS already has a data policy, "*Policy and practice for EuroGOOS for the exchange of oceanographic and related data and products including guidelines on relationships in commercial oceanographic activities*", agreed on 9 March 2000. At the time the 30 EuroGOOS members agreed to sign the policy.

This agenda topic will give a brief introduction to the mentioned data policies and then open for discussion on the topic. Discussion items could include:

- Are the ROOSes in need of regional DEA/Data Policies?
- Could a possible push on ROOSes to produce, update and sign DEAs have a counter effect?
- Should a Data Policy be proposed at a higher level than ROOS level i.e. EuroGOOS level?
- On what detail should it be, light or more complex?
- Few institutes can guarantee data to be delivered under strong conditions. In this case would a light Data Policy stating general principals, but no/few commitments be useful?
- With no DEAs or other agreements in place a possible loss of data could affect all aspects of data and downstream services i.e. CMEMS, EMODnet, ....

## **EuroGOOS Data Policy 2000**



# **EuroGOOS**

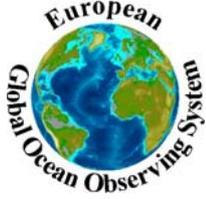
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## **EuroGOOS Data Policy**

**Policy and practice for EuroGOOS for the exchange of oceanographic and related data and products including guidelines on relationships in commercial oceanographic activities**

**9 March 2000**

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## **Policy and practice for EuroGOOS for the exchange of oceanographic and related data and products including guidelines on relationships in commercial oceanographic activities**

### NOTING:

- (1) WMO Resolution 40 (Cg-XII) – WMO policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities,
- (2) The Decision of the Commission for the European Union dated 21.10.1999 regarding ECOMET Economic Interest Grouping according to Belgium Law,
- (3) The UN convention of 1998 on the access to information, public participation in decision-making and access to justice in environmental matters (the Aarhus-Convention)
- (4) Council Directive 90/313/EEC of June 1990 on the freedom of access to information on the environment,
- (5) Directive 96/9/EC of The European Parliament and of the Council of 11 March 1996 on the legal protection of databases,

### RECALLING:

- (1) The present GOOS Policy for exchange of data and products

### CONSIDERING:

- (1) The continuing fundamental importance, for the provision of oceanographic services in all countries, of the exchange of oceanographic and related data and products between EuroGOOS Members,
- (2) Other programmes of world importance and the ocean observing and Marine Meteorological programmes under JCOMM,
- (3) The basic role of EuroGOOS Members to furthering applications of oceanography to all human activities,
- (4) The call by world leaders at UNCED (Brazil, 1992) for increasing global commitment to exchange scientific data and analysis and for promoting access to strengthening systematic observations,
- (5) The provisions in the UN/FCCC committing all Parties to the Convention to promote and co-operate in the full, open and prompt exchange of information related to the climate system and climate change,
- (6) UN Convention on the Law of the Sea, especially those articles on international data exchange: 200, 244.2, 249.1(c), 249.1(d) and 277(e).

RECOGNISING:

- (1) The increasing requirement for the global exchange of all types of environmental data and in particular ocean data,
- (2) The basic responsibility for the Members to provide universal services in support of safety, security and economic benefits for the peoples in their countries,
- (3) The dependence of Members on the stable, co-operative international exchange of data and products for the discharge of their responsibilities,
- (4) The continuing requirement for Governments to provide for the oceanographic infrastructure of their countries,
- (5) The continuing need for, and benefits from, strengthening the capabilities of Members, in particular in developing countries, to improve the provision of services,
- (6) The dependence of the research and education communities on access to oceanographic and related data and products,
- (7) The right of Governments to choose the manner by, and the extent to, which they make data and products available domestically or for international exchange.

RECOGNISING FURTHER:

- (1) The existence of a trend towards the commercialisation of many oceanographic and related services and products,
- (2) The requirement by some Governments that the Members initiate or increase their commercial activities,
- (3) The risk arising from the commercialisation to the established system of free and unrestricted exchange of data and products, which forms the basis for the European co-operation in oceanography,
- (4) The EU-principle that all data and products, financed with public means and used by public entities for commercial activities shall also be available to other Service Providers.

ADOPTS the basic principles for the exchange of oceanographic and related data and products:

- (1) Exchange on a free and unrestricted basis of essential, additional and other data and products between the Members of EuroGOOS,
- (2) The right for the originator of data and products to place conditions on additional and other data and product for re-distribution for commercial purposes,
- (3) Free and unrestricted access to data and products for non-commercial research and education,
- (4) All data and products that is financed with public means and used for commercial purposes must be available for other Service Providers,
- (5) Transparency regarding availability, prices and conditions for re-distribution regarding oceanographic and related data and products through the maintenance of a EuroGOOS Product Catalogue,

These principles are in harmony with WMO Res. 40 and the EU Commissions decision regarding ECOMET.

FURTHER ADOPTS the following practice on the international exchange of oceanographic and related data and products

- (1) Members shall provide on a free and unrestricted basis essential data and products which are necessary for the provision of services in support of the protection of life and property and the well-being of all nations, particularly those data and products, as, at a minimum described in Annex 1 to this document, required to support WMO or GOOS Programmes;
- (2) Members should also provide additional data and products which are required to sustain programmes at the global, regional and national levels and, further as agreed, to assist other Members in the provision of oceanographic services in their countries. While increasing the volume of data and products available to all Members by providing the additional data and products, it is understood that EuroGOOS Members may be justified in placing conditions on their re-delivery for commercial purposes;
- (3) Members shall also provide to anybody all other data and products which are used in commercial activities and which have been funded through core/infrastructure activity or government grants. It is hereby understood that Members may be justified in placing conditions on their re-distribution for commercial purposes as well as to charge for the information and the delivery;
- (4) Members should provide to the research and education communities, for their non-commercial activities, free and unrestricted access to all data and products exchanged under the auspices of this document with the understanding that their commercial activities are subject to the same conditions identified in FURTHER ADOPTS (2) and (3) above;

URGES Members to:

- (1) Strengthen their commitment to the free and unrestricted exchange of oceanographic and related data and products;
- (2) Increase the volume of data and products exchanged under the auspices of this document;
- (3) Assist other Members, to the extent possible, and as agreed, by providing additional data and products in support of time-sensitive operations regarding oceanographic and environmental warnings, rescue operations and safety of life at sea;
- (4) Strengthen their commitment in their collection and supply of oceanographic and related data and products;
- (5) Implement the practice on the international exchange of oceanographic and related data and products, as described in ADOPTS (1) to (4) above;
- (6) Make known to all Members those oceanographic and related data and products which have conditions related to their re-distribution for commercial purposes;
- (7) Make their best efforts to ensure that the conditions which have been applied by the originator of additional and other data and products are complied with and made known to initial and subsequent recipients;

DECIDES to review the implementation of this document at the EuroGOOS Annual Meeting.

# **Annex 1 to the EuroGOOS Data Policy and Practices**

**Data and products to be exchanged without charge  
and with no conditions on use**

## **Provisional Synopsis**

Coarse resolution data and products in the following sectors:

- Waves
- Currents
- Sea level
- Tides
- Storm surges
- Temperature profiles
- Sea ice
- Icebergs
- Algal blooms
- Chlorophyll
- Ocean colour

## **Annex 2 to the EuroGOOS Data Policy and Practices**

### **Guidelines for the relations among Members of EuroGOOS regarding commercial activities**

#### **Purpose**

The purpose of these guidelines is to maintain and strengthen in the public interest the co-operative and supportive relations among Members in the face of different national approaches to the growth of commercial activities.

#### **Guidelines**

In order to ensure the maintenance of the exchange of data end products among EuroGOOS Members, and to develop the applications of oceanography, while adapting to the new challenge from the growth of commercial activities:

1. Members should provide the first point of receipt within a country for data and product exchanged under the auspices of the EuroGOOS Data Policy and Practices, in order to have complete and timely access to all information necessary for the production of oceanographic and environmental warnings and other oceanographic services necessary for rescue operations and safety of life at sea and other public interests responsibilities entrusted to the Member and without national laws of their territory of location;
2. Members should make their best efforts to ensure that the conditions which have been applied by the originator of additional and other data and products are made known to initial and subsequent recipients;
3. In the case where conditions accompanying the exchange of additional and other data and products are not honoured, the originating Member may take appropriate actions including denial of access of these additional and other data and products to the receiving Member;
4. Members may export regional model products employing additional and other data and products for commercial purposes outside the country of the Member running the model, unless objected to by an affected Member. Every effort should be made to co-ordinate the provision of such services prior to implementation to avoid possible harm to other Members;
5. Services or products whose construction would suffer significant degradation by removal of the additional or other data or products and from which the additional or other data and/or products can be retrieved easily, or their use can be identified unambiguously, should carry the same conditions on their re-distribution for commercial purposes as those additional or other data and products;
6. A Member receiving a request from a local client for service that it cannot fulfil may seek assistance from another Member with the capacity to provide it. Where appropriate to enhance free and unrestricted exchange of data and products among EuroGOOS Members, the service should as far as possible be made available through the offices of the Member of the country within which the client is located;
7. Similarly, unless other arrangements have been agreed to, a Member receiving a request to provide service in another country should refer the request back to the Member in that country. In the event that the local Member is unable to provide the service for lack of facilities or other legitimate reasons, the external Member may seek to establish a collaborative arrangement with the local Member to provide the service;
8. Where the service originated by one Member is likely to affect other Members, the Member originating the service should seek, well in advance, and take into account the response of the affected Members, to the extent possible;

9. Members should, to the extent possible, refrain from using basic data and products received from other Members in ways which jeopardise the performance of the public responsibilities of the originating Members within their own countries. If a Member finds that, in the undertaking of its public interest responsibilities it is affected by a public or private organisation in another country, it may warn the Member in the country from which the organisation is deriving the data and products. The latter Member should consider measures to mitigate these adverse effects and take those actions appropriate under its national laws;
10. Members with experience in commercial activities should make their expertise available, on request, to other Members;

In implementing these guidelines, Members should take into account and, as far as possible, respect the different legal, administrative, and funding frameworks which govern the practices of other countries or group of countries forming a single economic group. Members should, in particular, note that other Members will be bound by their own national laws and regulations regarding any trade restrictive practices. Furthermore, where a group of countries form a single economic group, the internal laws and regulations appropriate to that group shall, for all internal group activities, take precedence over any conflicting guidelines.

# **Annex 3 to the EuroGOOS Data Policy and Practices**

## **Guidelines for the relations between Members of EuroGOOS and the commercial sector**

### **Purpose**

The purpose of these guidelines is to improve the relationship between Members and the commercial sector. The development of the exchange of oceanographic and related information depends greatly upon sound, fair, transparent, and stable relations between these two sectors.

### **Guidelines**

These guidelines apply to the commercial sector engaged in oceanographic activities, which includes government organisations engaged in commercial activities in order to enhance the relationship between the two sectors:

1. In the common interest, the commercial sector is urged to respect the international data exchange principles;
2. The commercial sector is urged to recognise and acknowledge the essential contribution of EuroGOOS Members to the activities of the commercial sector. EuroGOOS Members and the commercial sector are urged to recognise the interdependence and mutual benefit possible from co-operative interaction;
3. In case where a Member were to consider itself affected by the commercial sector's use of data originated in its own country, all parties involved shall undertake negotiations to achieve appropriate and satisfactory agreements;
4. Unless authorised to do so by the relevant Member or by official originators of oceanographic or environmental warnings and forecasts relevant to rescue operations and safety of life at sea, commercial sector providers of oceanographic services should not publicly issue oceanographic or environmental warnings and forecasts relevant to rescue operations and safety of life at sea in the country or maritime area where they operate. Oceanographic or environmental warnings and forecasts relevant to rescue operations and safety of life at sea publicly issued by the commercial sector should be consistent with those originated by official originators in the course of the performance of their public service responsibilities;
5. In providing services, the commercial sector should be encouraged to employ Oceanographic terminology consistent with established national and international practice;
6. Commercial sector providers of oceanographic services should respect the sovereignty and rules and regulations of the countries in which they deliver services;
7. Members are encouraged to discuss with their countries' oceanographic community and their professional societies the issues associated with the international activities of the commercial sector;
8. Members are encouraged to collaborate with their countries commercial sector and their professional societies to maximise the use of oceanographic information within their country.

## Annex 4 to the EuroGOOS Data Policy and Practices

### Definitions in the policy, practice and guidelines

1. *Free and unrestricted* means non-discriminatory and without charge.
2. *Without charge*, in the context of this document, means at no more than the cost of reproduction and delivery, without charge for the information.
3. *Data* means all meteorological, oceanographic, hydrological and environmental observations obtained by Members of EuroGOOS.
4. *Products* means all information that results from the transformation or processing of data in the form of pictures, charts, text, or data files embodies substantial know-how, is considered to require oceanographic know-how to be interpreted, and has been prepared to meet the requirements of a Member of EuroGOOS.
5. *Essential data and products* means data defined as such in Annex 1.
6. *Additional data and products* means data defined as such by annexes to this document and in the EuroGOOS Data Catalogue.
7. *Other data and products* means data defined as such by annexes to this document and in the EuroGOOS Data Catalogue.
8. *Oceanographic and related data and products* means: all measurements of the state of the sea, the sea water, chemistry, biology, and state of the sea floor and sediments, including temperature and salinity, sea surface temperature and waves, and the products of wave models, but excluding marine meteorological data and products.
9. *For commercial purposes* means for recompense beyond the incremental cost of reproduction and delivery.
10. *Commercial sector* means governmental or non-governmental organisations or individuals operating for commercial purposes.
11. *Re-distribution* means distribution to a third party other than the originator of the data and products.

## Signatories to the EuroGOOS Data Policy 9 March 2000

| Institution   | Signature | Name<br>(please print) |
|---|-----------|------------------------|
| CERFACS, France   | .....     |                        |
| Consiglio Nazionale Delle Ricerche (CNR), Italy             | .....     |                        |
| Danish Meteorological Institute, Denmark                    | .....     |                        |
| ENEA, Italy   | .....     |                        |
| Environment Agency (EA) (formerly NRA), UK                  | .....     |                        |
| Finnish Institute of Marine Research, Finland               | .....     |                        |
| IFREMER, France   | .....     |                        |
| Institute of Marine Research, Bergen, Norway                | .....     |                        |
| Institute of Marine Sciences, Turkey                        | .....     |                        |
| Institute of Oceanology, Polish Academy of Sciences, Poland | .....     |                        |

## Signatories to the EuroGOOS Data Policy 9 March 2000

| Institution   | Signature | Name<br>(please print) |
|---|-----------|------------------------|
| Institution of Marine Biology of Crete, Greece  | .....     |                        |
| Instituto Español de Oceanografía (IEO), Spain  | .....     |                        |
| Koninklijk Nederlands Meteorologisch Instituut (KNMI), Netherlands                              | .....     |                        |
| Marine Institute, Ireland   | .....     |                        |
| Météo France  | .....     |                        |
| Meteorological Office, UK   | .....     |                        |
| Management Unit of the North Sea Mathematical Models (MUMM), Prime Minister's Services, Belgium | .....     |                        |
| Nansen Environmental and Remote Sensing Center, Norway  | .....     |                        |
| National Centre for Marine Research of Greece   | .....     |                        |
| National Institute for Coastal and Marine Management (RIKZ), Rijkswaterstaat, Netherlands       | .....     |                        |

## Signatories to the EuroGOOS Data Policy 9 March 2000

| Institution   | Signature | Name<br>(please print) |
|---|-----------|------------------------|
| Natural Environment Research Council (NERC), UK   | .....     |                        |
| Norwegian Meteorological Institute (DNMI), Norway   | .....     |                        |
| NWO Earth and Life Sciences Council, Netherlands  | .....     |                        |
| Polish Institute of Meteorology and Water Management, Maritime Branch, Poland                   | .....     |                        |
| Puertos del Estado, Clima Marítimo, Spain   | .....     |                        |
| Royal Danish Administration of Navigation and Hydrography, Denmark                              | .....     |                        |
| Russian Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet), Russia | .....     |                        |
| Swedish Meteorological and Hydrological Institute (SMHI), Sweden                                | .....     |                        |

**Signatories to the EuroGOOS Data Policy 9 March 2000**

|   |  |  |
|---|--|--|
| Bundesamt für Seeschifffahrt und Hydrographie (BSH), Germany                  |  |  |
| Institute of Meteorology and Water Management (IMWM), Maritime Branch, Poland |  |  |

## **IOC Data Policy 2003**

During its twenty-second session (24 June - 4 July 2003) the IOC Assembly adopted Resolution IOC-XXII-6 entitled 'IOC Oceanographic Data Exchange Policy

## **RESOLUTION IOC-XXII-6**

(Agenda item 4.3.2 )

### **IOC OCEANOGRAPHIC DATA EXCHANGE POLICY**

The Intergovernmental Oceanographic Commission,

- 1 **Recalling** Resolution XX-11 on Oceanographic Data Exchange Policy (1999),
- 2 **Noting:**
  - (i) WMO Resolution 40 (Cg-XII) which defined a policy and practice for the international exchange of meteorological and related data and is intended to promote the free and unrestricted exchange of basic data,
  - (ii) The “Statement on Data Management Policy for Global Ocean Programmes” as submitted by the IOC Committee on IODE (Recommendation IODE-XIV.6, December 1992) and adopted by the IOC Assembly at its 17<sup>th</sup> Session (Paris, 25 February–11 March 1993) (para. 220 of the Summary Report of the Session),
- 3 **Considering** the reports of deliberations of:
  - (i) The Ad hoc Working Group on Oceanographic Data Exchange Policy (Paris, 15–17 May 2000),
  - (ii) The First Session of the Intergovernmental Working Group on IOC Oceanographic Data Exchange Policy (Brussels, 29–31 May 2001),
  - (iii) The Second Session of the Intergovernmental Working Group on IOC Oceanographic Data Exchange Policy (Paris, 17–18 June 2002),
- 4 **Adopts** the IOC Oceanographic Data Exchange Policy as detailed in the Annex to this Resolution.

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**Financial implications: none**

## **Annex to Draft Resolution IOC-XXII/DR.3 IOC Oceanographic Data Exchange Policy**

### **Preamble**

The timely, free and unrestricted international exchange of oceanographic data is essential for the efficient acquisition, integration and use of ocean observations gathered by the countries of the world for a wide variety of purposes including the prediction of weather and climate, the operational forecasting of the marine environment, the preservation of life, 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.

**Recognising** the vital importance of these purposes to all humankind and the role of IOC and its programmes in this regard, the Member States of the Intergovernmental Oceanographic Commission **agree** that the following clauses shall frame the IOC policy for the international exchange of oceanographic data and its associated metadata.

### **Clause 1**

Member States shall provide timely, free and unrestricted access to all data, associated metadata and products generated under the auspices of IOC programmes.

### **Clause 2**

Member States are encouraged to provide timely, free and unrestricted access to relevant data and associated metadata from non-IOC programmes that are essential for application to the preservation of life, beneficial public use and protection of the ocean environment, the forecasting of weather, the operational forecasting of the marine environment, the monitoring and modelling of climate and sustainable development in the marine environment.

### **Clause 3**

Member States are encouraged to provide timely, free and unrestricted access to oceanographic data and associated metadata, as referred to in Clauses 1 and 2 above, for non-commercial use by the research and education communities, provided that any products or results of such use shall be published in the open literature without delay or restriction.

### **Clause 4**

With the objective of encouraging the participation of governmental and non-governmental marine data gathering bodies in international oceanographic data exchange and maximizing the contribution of oceanographic data from all sources, this Policy acknowledges the right of Member States and data originators to determine the terms of such exchange, in a manner consistent with international conventions, where applicable.

### **Clause 5**

Member States shall, to the best practicable degree, use data centres linked to IODE's NODC and WDC network as long-term repositories for oceanographic data and associated metadata. IOC programmes will co-operate with data contributors to ensure that data can be accepted into the appropriate systems and can meet quality requirements.

### **Clause 6**

Member States shall enhance the capacity in developing countries to obtain and manage oceanographic data and information and assist them to benefit fully from the exchange of oceanographic data, associated metadata and products. This shall be achieved through the non-

discriminatory transfer of technology and knowledge using appropriate means, including IOC's Training Education and Mutual Assistance (TEMA) programme and through other relevant IOC programmes.

### **Definitions**

**'Free and unrestricted'** means non-discriminatory and without charge. "Without charge", in the context of this resolution means at no more than the cost of reproduction and delivery, without charge for the data and products themselves.

**'Data'** consists of oceanographic observation data, derived data and gridded fields.

**'Metadata'** is 'data about data' describing the content, quality, condition, and other characteristics of data.

**'Non-commercial'** means not conducted for profit, cost-recovery or re-sale.

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

**'Product'** means a value-added enhancement of data applied to a particular application.

## **Jerico Next Data Policy 2017**



Joint European Research Infrastructure network for Coastal Observatory –  
Novel European eXpertise for coastal observaTories - **JERICO-NEXT**

|                           |  |
|---------------------------|--|
| <b>Deliverable title</b>  | Recommendation on a free and open data access policy   |
| <b>Work Package Title</b> | WP 5 – Data Management   |
| <b>Deliverable number</b> | D5.1   |
| <b>Description</b>        | Preparation of a document with recommendations on open and free data policy as derived from IOC, WMO, ICES and other organization documentations |
| <b>Lead beneficiary</b>   | EuroGOOS   |
| <b>Lead Authors</b>       | Patrick Gorringe   |
| <b>Contributors</b>       | A. Novellino, P. Fernandez   |
| <b>Submitted by</b>       | P. Gorringe  |
| <b>Revision number</b>    | V 1.3  |
| <b>Revision Date</b>      |  |
| <b>Security</b>           | Public   |





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|---------------|------------|--------------|--------------|
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| V 1.2         | 12/07/2017 |              | V. Fernandez |
| V 1.3 – Final | 31/08/2017 |              | P. Gorringe  |
|               |            |              |              |
|               |            |              |              |
|               |            |              |              |

| Approvals          |                       |              |          |      |
|--------------------|-----------------------|--------------|----------|------|
|                    | Name                  | Organisation | Date     | Visa |
| <b>Coordinator</b> | Patrick Farcy         | IFREMER      | 12.09.17 | PF   |
| <b>WP Leaders</b>  | Leonidas Perivoliotis | HCMR         | 08.09.17 | LP   |
|                    | Patrick Gorringe      | EuroGOOS     | 01.09.17 | PG   |

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## 1. Acknowledgement

This policy was developed using data policies from other organisations and initiatives, largely the Common FixO3 data policy MoU and IOC Oceanographic Data Exchange Policy. Many JERICO-NEXT partners are IOC member states and hence have agreed to follow the IOC Data Policy (See Annex Chapter 6.2). Since JERICO-NEXT is not the custodian of any data, this Data policy has been adopted to suit JERICO-NEXT and its partners. As many of the existing data policies deal with marine scientific data and have a number of identical issues, many aspects of this policy is naturally similar to the studied policies.

The data policy is generally consistent with the policies of a number of international bodies and projects. Most data under the JERICO-NEXT data policy are, and will continue to be, fully accessible through other means i.e. EuroGOOS ROOSs, EMODnet, SeaDataNet and CMEMS also after the project has been finalised.





## 2. Executive Summary

The main message of the JERICO-NEXT data policy is that data produced within the project is free and unrestricted with no charge for third parties.

The JERICO-NEXT Data Policy provides recommendations on ownership, to which data these recommendations are applied, DOI, data citation and the main recommendations on data sharing and dissemination principles.

## 3. Introduction

Deliverable 5.1 is embedded within Work Package 5 (Data management). One main objective of this Work Package is to provide procedures and methodologies to enable data collected through the project to comply with international standards regarding their quality and metadata.

The timely, free and unrestricted exchange of oceanographic observation data is essential for the efficient acquisition, integration and use of ocean observations gathered by the projects and countries of the world for a wide variety of purposes including the prediction of weather and climate, the preservation of life, the mitigation of human impact to the marine and coastal environment, as well as for the advancement of scientific understanding that makes them possible.

JERICO-NEXT WP5 aims to make accessible and freely available on internet as much marine data as possible from the project – via the JERICO-NEXT website and existing initiatives and data portals such as EuroGOOS ROOSs, EMODnet and SeaDataNet; and hence making the data available to any possible user. This document presents a guide to the JERICO-NEXT partners on how the open data policy could be managed.

Data policies are often seen as complicated. In the past, data policies were often very complex with numerous clauses. Nowadays, data policies tend to be rather recommendations and are kept short and non-complicated. During the JERICO-NEXT 2017 General Assembly it was agreed to keep the policy as simple as possible, without the requirement of signatures from the data providers, to be aligned with existing data policies and consisting of a small number of agreed statements.

Recognizing the vital importance of an open and free data policy exchange within the JERICO-NEXT project, the partners agree that the statements presented in this document shall frame the JERICO-NEXT recommendations on the data policy exchange of oceanographic data and its associated metadata.

The policy will also ensure that data and data providers are given maximum visibility, with data and metadata made available through the main marine data infrastructures including the EuroGOOS ROOSs and SeaDataNet's network of NODCs, as well as being accessible via CMEMS and EMODnet and its thematic portals.

Metadata records from JERICO-NEXT partners will be provided and visualized via the JERICO-NEXT catalogue (Deliverable 5.2: Release of a JERICO-NEXT catalogue, comprising data and products based on Task 5.3: (Platform registration and metadata management system output).

## 4. Recommendations on a free and open data access policy

In this document, we present the recommendations on a free and open data access policy. Some main definitions are first clarified and discussed on the ownership and custodianship of the data is presented. The





data for which these recommendations are applied are presented. Digital Object Identifiers, DOI, are also introduced. Finally, the clauses for the Data Policy are presented.

#### 4.1. Preliminary Definitions

- “*Free and unrestricted*” means non-discriminatory and without charge.
- “*Without charge*”, in his context means the data are free to any user without any charge for the data and products themselves.
- “*Data*” consists of oceanographic observation data, its derived data and, if applicable, gridded analysed fields.
- “*Metadata*” is “data about data” describing the content, quality, condition, and other characteristics of the data.

#### 4.2. Data policy overview

All data provided to JERICO-NEXT are unencumbered, i.e. freely accessible at no charge to third parties. It is highly requested that all provided data is adequately documented with enough metadata in order to enable interoperability with data aggregators such as EMODnet and CMEMS INSTAC; and that all necessary arrangements are made for data held by custodian organisation for long term access, after the life of the project.

JERICO-NEXT encourages parties to use well established metadata standards, e.g. SeaDataNet standards, or as an alternative, any other agreed standard that can be cross-walked into required format. JERICO-NEXT seeks that all original metadata will be stored by the custodian organisation or an agreed alternate organisation.

Data and metadata generated within JERICO-NEXT are stored with the originating institute/organisation. JERICO-NEXT does not host any data or metadata. All data made available will be made publicly available.

Institutes and data originators within JERICO-NEXT will ensure that they:

- Comply with the JERICO-NEXT data policy recommendations;
- Store appropriate metadata records for the datasets.

#### 4.3. Ownership of JERICO-NEXT data

Data provided from JERICO-NEXT partners are owned by the data originator organisation. JERICO-NEXT is only aiming to make third parties aware of the existence of the data produced within the project and to provide direct access to the underlying data.

Datasets that eventually have some restrictions placed on them may also, in some cases, be made available. However, it's up to the custodian to specify these restrictions in the metadata record associated with the data. JERICO-NEXT will not be responsible for limiting access to these data.

Users of the data are free to:

- *Share/copy and redistribute* the material in any medium of format;





- *Adapt/remix*, and *build upon* the material for any purpose, even commercially under the following term:
  - *Attribution*: You must give appropriate credit to the data originator

#### 4.4. Custodianship/data originator

A data custodian is an individual that can provide information about the specific dataset to any interested party – i.e. someone who is familiar with how the data was generated and/or have a long-term interest in the data. It's recommended that each metadata record related to a particular dataset includes the information of who is the custodian for the dataset. A custodian can also be a data assembly centre or a data unit.

It is the responsibility of the custodians to ensure that all their data is appropriately documented through a metadata record and that these data are available in an appropriate format.

#### 4.5. What are the data of interest for JERICO-NEXT

JERICO-NEXT data are those data generated under the auspices of the JERICO-NEXT project. These recommendations applies specifically to those data and includes physical, chemical and biological parameters.

In particular, data identified in deliverable D5.16, *Adapting JERICO-NEXT activities to a Virtual Access infrastructure*, are of interest together with data collected within WP4, *JRA2 - Valorisation through applied joint research* and data identified in Task 5.3, Platform registration and metadata management system, and other tasks within WP5 as well as data already available in the JERICO-NEXT data portal. See table below.

**In case there are additional data deemed to be available by the JERICO-NEXT consortia they should be made available under the same recommendations.**

The following table summarizes the JERICO-NEXT infrastructures in WP6, Virtual access and used by Task 5.8 D5.16: Adapting JERICO-NEXT activities to a Virtual Access infrastructure: Survey on the existing technologies - Needs and requirements for the adaptation to which these recommendations are applied.

| Organisation | Contact       | Name                 | Website   |
|--------------|---------------|----------------------|---|
| SYKE         | Jukka Seppala | real-time monitoring | <a href="http://www.finmari-infrastructure.fi/ferrybox/">http://www.finmari-infrastructure.fi/ferrybox/</a>   |
|              |               | algaline             | <a href="http://www.syke.fi/en-US/Research_Development/Research_and_development_projects/Projects/Real_time_algal_monitoring_in_the_Baltic_Sea_Alglne">http://www.syke.fi/en-US/Research_Development/Research_and_development_projects/Projects/Real_time_algal_monitoring_in_the_Baltic_Sea_Alglne</a> |
| AZTI         | Julien Mader  | HFR                  | <a href="http://www.euskoos.eus/en/basque-ocean-meteorological-network/high-frequency-coastal-radars/">http://www.euskoos.eus/en/basque-ocean-meteorological-network/high-frequency-coastal-radars/</a>   |
|              |               |                      | <a href="http://www.emodnet-physics.eu/map/platinfo/piradar.aspx?platformid=10273&amp;60days=false">http://www.emodnet-physics.eu/map/platinfo/piradar.aspx?platformid=10273&amp;60days=false</a>   |
| Cefas        | Joanna Wittel | Cefas data Hub       | <a href="https://www.cefas.co.uk/cefas-data-hub/">https://www.cefas.co.uk/cefas-data-hub/</a>   |





|              |                                   |  |   |
|--------------|-----------------------------------|--|---|
| Ifremer      | Guillaume Garcia                  | coastal Coriolis   | <a href="http://www.coriolis-cotier.org/">http://www.coriolis-cotier.org/</a>   |
| HGZ          | Klas Ove Möller                   | COSYNA   | <a href="http://www.cosyna.de">http://www.cosyna.de</a>   |
| CNRS         | Laure Rousseau                    | EOL  | <a href="http://www.obs-vlfr.fr/data/view/eol/surface/">http://www.obs-vlfr.fr/data/view/eol/surface/</a>   |
|              |                                   |  | <a href="http://www.obs-vlfr.fr/data/view/eol/ctd/">http://www.obs-vlfr.fr/data/view/eol/ctd/</a>   |
|              |                                   |  | <a href="http://www.obs-vlfr.fr/data/view/eol/meteo/buoy/">http://www.obs-vlfr.fr/data/view/eol/meteo/buoy/</a>   |
|              |                                   |  | <a href="https://spiarcbase.epoc.u-bordeaux1.fr/">https://spiarcbase.epoc.u-bordeaux1.fr/</a>   |
| ISMAR-CNR-IT | Carlo Mantovani, Lorenzo Corgnati | LISO-HFR   | <a href="http://radarhf.ismar.cnr.it">http://radarhf.ismar.cnr.it</a>   |
| IH           | Joao Vitorino                     | MONICAN  | <a href="http://monican.hidrografico.pt/">http://monican.hidrografico.pt/</a>   |
| IO-BAS       | Violeta Slabakova                 | NOMOS  | <a href="http://www.bgodc.io-bas.bg">http://www.bgodc.io-bas.bg</a>   |
| HCMR         | Leonidas Perivoliotis             | POSEIDON   | <a href="http://www.poseidon.hcmr.gr">http://www.poseidon.hcmr.gr</a>   |
| SMHI         | Johanna Linders                   | Shark  | <a href="http://www.sharkdata.se/">http://www.sharkdata.se/</a>   |
|              |                                   | opendata   | <a href="http://opendata-catalog.smhi.se/explore/">http://opendata-catalog.smhi.se/explore/</a>   |
| SOCIB        | Christian Munoz                   | SOCIB Data Centre Multi Platform Observatory   | <a href="http://www.socib.es">http://www.socib.es</a>   |
| FMI          | Lauri Laakso                      | UTO  | <a href="http://swell.fmi.fi/Uto/latest.html">http://swell.fmi.fi/Uto/latest.html</a>   |
| NIVA         | Kai Sorensen                      | NIVA Research Station (NRS)  | <a href="http://www.niva.no/en/om-niva/kontorer-og-avdelinger/forskningsstasjon-solbergstrand">http://www.niva.no/en/om-niva/kontorer-og-avdelinger/forskningsstasjon-solbergstrand</a> |
|              |                                   | <a href="http://www.niva.no/en/miljoedata-pa-nett/ferrybox-og-satellitdata">NorFerry</a> | <a href="http://www.niva.no/en/miljoedata-pa-nett/ferrybox-og-satellitdata">http://www.niva.no/en/miljoedata-pa-nett/ferrybox-og-satellitdata</a>                                       |

#### 4.6. DOI

Digital Object Identifiers (DOIs) are character strings which allow an electronic object to be uniquely identified. JERICO-NEXT is now in a position to issue DOIs for datasets via the SEXTANT tool developed by IFREMER, France, <http://sextant.ifremer.fr/en>. Any user of JERICO-NEXT data should use the issued DOI for citation purposes.

A DOI will be assigned to archived data sets at an interval agreed by the data originator. A single DOI will be provided for the dataset at the finalisation of the project covering the full project duration. This activity will take into account that data originators possibly already have assigned a DOI for the dataset. In this case a link to that DOI should be provided.





## 4.7. Recommended Data Policy

### Data sharing and dissemination principles

JERICO-NEXT data sharing and dissemination principles for data collected during the project timeline are the following:

- Research infrastructures under the umbrella of JERICO-NEXT support free, open access to data and metadata produced by their facilities and are committed to working towards the implementation of this principle;
- Data and metadata generated during the project will be made available via free and open access without any restrictions and available at no cost to third parties;
- Appropriate controlled dictionaries such as the BODC vocabularies ([https://www.bodc.ac.uk/resources/vocabularies/parameter\\_codes/](https://www.bodc.ac.uk/resources/vocabularies/parameter_codes/)), also used in SeaDataNet are recommended to be used within JERICO-NEXT metadata descriptions;
- Data and associated metadata may be subject to long-term archiving, typically at National Data Centres (NODCs);
- A metadata catalogue on JERICO-NEXT derived data shall be made accessible via the JERICO-NEXT website (D5.2: Release of a JERICO-NEXT catalogue comprising data and products based on task 5.3 output);
- Data will be provided by JERICO-NEXT partners to ongoing projects and initiatives such as EMODnet, SeaDataNet and CMEMS INSTAC. These data will also be visualised and downloadable via the JERICO-NEXT website and portal.

### Use of data

- Data interpretation is solely the responsibility of data user;
- Data sources shall be acknowledged, preferably using a formal citation (See data citation section below).

### Contribution of data

- The general responsibility for data sets that have been made available remains with the contributing institution/custodian/data originator;
- The quality assurance of data is the responsibility of the custodian/data originator;
- Data providers are requested to inform of any national policies that may place special conditions on the redistribution of data;
- Metadata shall be provided for each data set following, as far as possible, agreed standards within BODC and SeaDataNet.

### Data Citation





- Data citations should facilitate giving credit to all contributors to the data;
- Where DOIs are available these should be used, otherwise the following citation guidelines should be used;
- If you use JERICO-NEXT data, please acknowledge the use of these data with one of the following statements:
  - In applications or websites:  
“Data products used in this application were obtained from JERICO NEXT - European Commission’s Horizon 2020 Research and Innovation programme under grant agreement No 654410 (<http://www.jerico-ri.eu/>)”
  - In publications:  
“Data used in this work were obtained from JERICO-NEXT (<http://www.jerico-ri.eu/>)”





## 5. Annexes and references

### 5.1. Links to a selection of data policies

- IOC Oceanographic Data Exchange Policy: [http://www.jodc.go.jp/ioc\\_policy.htm](http://www.jodc.go.jp/ioc_policy.htm)
- WMO Data Policy (resolution 40): [https://library.wmo.int/pmb\\_ged/wmo\\_837\\_en.pdf#page=18](https://library.wmo.int/pmb_ged/wmo_837_en.pdf#page=18)
- ICES Data Policy: <http://ices.dk/marine-data/guidelines-and-policy/Pages/ICES-data-policy.aspx>
- SeaDataNet Data Policy: <https://www.seadatanet.org/Data-Access/Data-policy>
- Ocean Networks Canada Usage Policy: <http://www.oceannetworks.ca/data-tools/data-help/policy/additional-data-policy-information>
- OceanSITES Data Policy: <http://www.oceansites.org/data/>
- US IOOS, <https://ioos.noaa.gov/>
- 

### 5.2. IOC Oceanographic Data Exchange Policy

#### Clause 1

Member States shall provide timely, free and unrestricted access to all data, associated metadata and products generated under the auspices of IOC programmes.

#### Clause 2

Member States are encouraged to provide timely, free and unrestricted access to relevant data and associated metadata from non-IOC programmes that are essential to the following applications. These applications are the preservation of life, beneficial public use and protection of the ocean environment, the forecasting of weather, the stationary forecasting of the marine environment, the monitoring and modelling of climate and sustainable development in the marine environment.

#### Clause 3

Member States are encouraged to provide timely, free and unrestricted access to oceanographic data and associated metadata, as indicated in the above in Clauses 1 and 2, for non-commercial use by the research and education communities, provided that any products or results available as a result of such use shall be published in the open literature without delay or restriction.

#### Clause 4

With the objective of encouraging the government and non-government involved in gathering marine data to participate in the international oceanographic data exchange and maximizing the contribution of oceanographic data from all sources, this policy acknowledges the right of Member States and data producers to determine the terms of such exchange, provided that in case an applicable international data is available, it is required to agree with the manner of the convention.

#### Clause 5

Member States shall, to the best practicable degree, use data centers linked to IODE's NODC and WDC networks as the long-term repositories for oceanographic data and associated metadata. IOC programmes shall co-operate with data contributors to ensure that data can be accepted into the appropriate systems and can meet quality requirements.





## Clause 6

Member States shall enhance the capacity in developing countries to obtain and manage oceanographic data and information and assist them to benefit fully from the exchange of oceanographic data, associated metadata and products. This shall be achieved through the transfer of technology and knowledge with no-gap using appropriate means, including IOC's Training Education and Mutual Assistance (TEMA) programme and through other relevant IOC programmes.

