



Project co-funded by the European Commission

Research Directorate-General

6<sup>th</sup> Framework Programme

FP6-2004-Infrastructures5



Structuring the European Research Area – Research Infrastructure

# SeaDataNet I3

**Pan-European infrastructure for Ocean & Marine Data management**

## SeaDataNet Data Policy

Organisation name of lead contractor for this deliverable: ENEA

Project acronym: SeaDataNet I3

Project full title: Pan-European infrastructure for Ocean & Marine Data management

Contract no.: RII3-CT-2006-026212

Start date of project: 1<sup>st</sup> April 2006

Co-ordinator:



Institut Français de Recherche pour l'Exploitation de la Mer - France



Title		Deliverable number	
SeaDataNet Data Policy			
Subject – Sub-title			
Data policy and licence agreement			
Short Description			
Data Policy to be implemented in order for SeaDataNet to succeed. It includes references to international policies, word definitions, policy to use the data and policy on contribution of data.			
Keywords			
data, meta-data, image, product, role			
Authors / Organisation(s)			
SeaDataNet Project Office			
Working Group			
Steering Committee			
Reference Code		File name	
SDN-PO07		sdn_po07_Data_Policy.doc	
Comments			
Drafting by Project Office, review by Steering Committee, validation by Coordination Group			

History				
Version	Author(s)	Status	Date	Comments
001	G. Manzella	Draft1	14/2/2007	First Draft
002	G. Manzella + comments from C. Maillard+ D. Schaap + G. Maudire + R. Lowry + V. Harscoat	Draft2	7/3/2007	Integration of major comments incl. "roles"
002.1	Steering Committee	Draft2.1	21/3/2007	Adoption with minor corrections
002.2	L. Rickards	Draft 2.2	12/4/2007	Review & corrections
003	S. Scory	Draft 3	17/04/07	Review & corrections

SeaDataNet Reference Documents			
Date	Author(s)	Title	Address
May 2006	EC, Ifremer and Partners	Contract for an Integrating Activity implemented as Integrated Infrastructure Initiative (I3) – Annex I – "Description of Work"	sdn-contract
Nov 2006	SeaDataNet Partners	Consortium Agreement for the integrated infrastructure initiative – SeaDataNet project	sdn-contract
Jan 2006	C. Maillard et al.	SeaDataNet Project Handbook	Project Office Manual and Documents
March 2007	G. Maudire and V. Harscoat	Authentication and authorisation services Specifications and implementation manual	sdn-tech/aaa and Monitoring

Dissemination level		
PP	Restricted to other programme participants and the Commission Services	X



---

# Content

<b>CONTENT .....</b>	<b>3</b>
<b>1 OBJECTIVE AND FRAMEWORK FOR DATA POLICY .....</b>	<b>4</b>
<b>2 DEFINITIONS OF TERMS .....</b>	<b>4</b>
<b>3 SEADATANET TRANSNATIONAL ACCESS (TA) DATA CENTRES ASSETS.....</b>	<b>5</b>
<b>4 POLICY FOR USE OF DATA .....</b>	<b>6</b>
4.1 GENERAL CONDITIONS.....	6
4.2 ROLES .....	7
4.3 LICENSE AGREEMENT .....	8
<b>5 POLICY ON CONTRIBUTION OF DATA .....</b>	<b>9</b>
5.1 DATA SOURCES .....	9
5.2 ENHANCING OF THE DATA CIRCULATION .....	9
5.3 META-DATA AND CATALOGUE SERVICES .....	9
5.4 DATA SETS INTEGRATION.....	10
5.5 QUALITY ASSURANCE .....	10
5.6 PRESERVATION OF DATA .....	10
<b>6 REFERENCES .....</b>	<b>11</b>



---

# 1 Objective and Framework for Data Policy

This document sets the policy for accessing the SeaDataNet data, information and products through the Trans National Access activities.

The policy aims to strike a balance between the rights of investigators and the need for widespread access through the free and unrestricted sharing and exchange of SeaDataNet data, meta-data and data products. The final goal of this policy is to serve the scientific community, public organisations, and environmental agencies, and to facilitate the production of advice and status reports by stating the conditions for data submission, access and use.

This policy applies to data managed by SeaDataNet partners for providing access to data managed in the SeaDataNet distributed systems.

By maximizing the availability of data to the community at large, SeaDataNet promotes the use of these data, thereby ensuring that their maximum value can be realized and thus contribute to an increased understanding of the marine environment.

The SeaDataNet data policy is consistent with, and in the spirit of, national and international policies and laws. Applicable policies or laws are those related to UN conventions, policies of international bodies often within the UN, policies and laws of the European Union. The SeaDataNet data policy is intended to be fully compatible with the Directive of the European Parliament and of the Council on public access to environmental information [1], the INSPIRE Directive [2], IOC [3], ICES[4], WMO[5], GCOS [6], GEOSS [7] and CLIVAR [8] data principles.

## 2 Definitions of terms

- **Asset.** An asset is an object to which access is to be controlled. In the context of SeaDataNet this is most likely to be a data file, but could also be a web page or a Web Service.
- **Distributed database.** A distributed database or system is where data can be located at various geographically distributed nodes but still be accessible through one unique portal or hub.
- **Transnational Access (TA) Data Centre.** A TA Data Centre is either:
  - an **NODC**: National Oceanographic Data Centre or Designated National Agency for International Oceanographic Data and Information Exchange (Intergovernmental Oceanographic Commission of UNESCO programme). Each NODC is in charge of coordinating the oceanographic data exchange in its country and of the long term preservation of the national data assets (*in-situ* data).
  - or a **Satellite Data Centre (SDC)**



- 
- **Role.** A role is a property of a user that determines the criteria that must be satisfied before access to an asset is granted. In many ways it can be thought of as a key that a user possesses.
  - **Policy.** A policy is a set of rules that determine access to an asset. Policies may be thought of as locks that are put in place to protect assets.
  - **Licence.** A licence is to give permission. A license is the document demonstrating that permission. A license may be granted by a party ("licensor") to another party ("licensee") as an element of an agreement between those parties. A shorthand definition of a license is "a promise (by the licensor) not to sue (the licensee) providing the terms of the license are respected". (from Wikipedia)

Each asset is labelled with a policy and a map is maintained relating roles to policies and licences. Thus if a specified role requests an asset, this is resolved to a role requesting a policy, which in turn resolves to a licence.

### 3 SeaDataNet Transnational Access (TA) Data Centres Assets

The assets held by the 40 SeaDataNet Transnational Access (TA) Data Centres are summarized in the Project Consortium Agreement and consist of:

- **Observation data: these** are measurements or observations (*in situ* and remote sensing) of marine environmental variables. In order to interpret and process these data, related attribute data such as type of data, location, time and unit of measurement are also required.
- **Model data: these** are estimates of marine environmental variables from model outputs (including analyses).
- **Image data: these** are images providing information on various aspects of the marine environment (e.g. map of posidonia meadows)
- **Meta-data: these** are data about data sets: information about observation, model or image data sets, the related attribute data such as type of data, location, date/time and unit of measurement, accuracy, precision or method of measurement, structure or ownership of the data.
- **Data products: these** are aggregated or combined sets of observation data, model data, images or meta-data (including web services).

## Definitions related to data

- **Data points** are individual numerical data
- **Data sets** are sets of data points grouped by any kind of pertinent criteria: vertical profiles, trajectories, time series, cruises or experiments.
- **Quality Flags** are alphanumeric indicators added to each numerical data at the end of the quality checks procedures.

In order to maximize the usability of data and thereby their value, SeaDataNet supplies meta-data and, if available, data quality indicators. All data, including meta-data and quality indicators, are made available by using standard coding formats and protocols to the greatest extent possible.

## 4 Policy for Use of Data

### 4.1 General Conditions

SeaDataNet makes data available freely and without restriction. “Freely” means at no more than the cost of reproduction and delivery, without charge for the data itself. “Without restriction” means without discrimination against, for example, individuals, research groups, or nationality.

SeaDataNet makes data available in a timely and easy way to users, but SeaDataNet remains dependent on data contributions.

SeaDataNet uses the most adapted and recent advances in communication to ensure widespread access to data collected under auspices of the programme. The SeaDataNet website is the focus point for dissemination.

According to the different types of assets, the access conditions vary:

- 1) meta-data are freely accessible without any condition.
- 2) data and products require:
  - a. registration
  - b. acceptance of additional conditions that may be requested by the different nodes of the distributed database. The access rights are granted according to the “role” of the user.
  - c. acceptance of an user licence.

## 4.2 Roles

The roles are attributed by the NODCs of the user's country (or user-desk by default) after on line registration. Name, email and professional references are mandatory.

The list of SeaDataNet roles may be found on BODC vocabulary web server <http://vocab.ndg.nerc.ac.uk/client/vocabServer.jsp> : list C866.

In April 2007, the role list content is the following:

Entry Key	Entry Term	Abbreviated Term	Definition
SDNR01	Administrator	administrator	A user who is able to bypass any access control created by SeaDataNet but with no bypass rights for local access controls.
SDNR02	Public	public	Any authenticated individual with sufficient credentials to satisfy SeaDataNet access logging requirements.
SDNR03	Academic	academic	A user who accesses data on the SeaDataNet network for purposes of education or bona fide non-profit academic research.
SDNR04	Commercial	commercial	A user who accesses data on the SeaDataNet network with the objective of making a financial profit from its use.
SDNR05	National and Local Government	national_gov	A user who accesses data on the SeaDataNet network for administrative or legislative purposes within the boundaries of a nation.
SDNR06	Pan-National Government	pan-national_gov	A user who accesses data on the SeaDataNet network for international administrative or legislative purposes. Generally, but not exclusively, the European Union in the SeaDataNet context
SDNR07	Partner	partner	A person employed by an organisation participating in SeaDataNet. This gives the right to access, create and (with ownership rights) maintain project documents and metadatabase entries.
SDNR08	Cruise Summary Report contributor	CSR_contributor	An individual outside SeaDataNet granted rights to create and (with ownership rights) maintain records in the SeaDataNet Cruise Summary Report repository.



### **4.3 License Agreement**

1. The Licensor grants to the Licensee a non-exclusive and non-transferable licence to retrieve and use data sets and products from the SeaDataNet service in accordance with this licence.
2. Retrieval, by electronic download, and the use of Data Sets is free of charge, unless otherwise stipulated.
3. Regardless of whether the data are quality controlled or not, SeaDataNet and the data source do not accept any liability for the correctness and/or appropriate interpretation of the data. Interpretation should follow scientific rules and is always the user's responsibility. Correct and appropriate data interpretation is solely the responsibility of data users.
4. Users must acknowledge data sources. It is not ethical to publish data without proper attribution or co-authorship. Any person making substantial use of data must communicate with the data source prior to publication, and should possibly consider the data source(s) for co-authorship of published results.
5. Data Users should not give to third parties any SeaDataNet data or product without prior consent from the source Data Centre.
6. Data Users must respect any and all restrictions on the use or reproduction of data. The use or reproduction of data for commercial purpose might require prior written permission from the data source.
7. Users are requested to inform SeaDataNet of any problems encountered with SeaDataNet-provided data. A timely and easy-to-use feedback procedure is available ([sdn-userdesk@seadatanet.org](mailto:sdn-userdesk@seadatanet.org)), aimed at correcting data at the data source. This feedback will increase the quality of the data.



## 5 Policy on Contribution of Data

### 5.1 Data sources

Data sources may be the originators of the data, meta-data, images or products, for example, persons responsible for the scientific work that produce them; or an intermediary such as the data sources' associated institute(s), the agency that commissioned or funded the work, or even the information technology group responsible for preparing the data for submission to SeaDataNet. The data source must precisely specify any access restrictions that it wishes SeaDataNet to uphold. Some cases that call for restrictions include data which is protected by law and data submitted during a prescribed period of exclusive use.

### 5.2 Enhancing of the data circulation

For SeaDataNet to succeed, high-quality data and meta-data need to be processed and exchanged without significant delay in a free and unrestricted manner. All data accessible through the SeaDataNet portal are considered to be freely available, unless otherwise explicitly specified and agreed. Restricted access will be considered on a case-by-case basis. SeaDataNet urges data sources to re-enforce their commitment to free-of-charge and unrestricted use of their data.

Speed is becoming a primary factor determining the usefulness of data, thus data should be made accessible as soon as possible and to the broadest user group possible. This implies both technical and policy considerations and coordination on the part of data sources, users, and SeaDataNet. For example, it will be possible for data sources to submit multiple versions of the same data set during the process of quality control.

### 5.3 Meta-data and catalogue services

Meta-data and other supplemental information are required to enable the use of data without ambiguity or uncertainty. Meta-data attached to the data sets (Common Data Index (CDI)) and to the other catalogues services:

- Pan-European Directory of Marine Environmental Data (EDMED),
- Cruise Summary Reports (CSR),
- Pan-European Directory of the Ocean-observing System (EDIOS),
- Pan-European Directory of Marine Environmental Research Projects (EDMERP),
- Pan-European Directory of Marine Organizations (EDMO),



are developed and managed in accordance with international standards. Each Transnational Access (TA) data centre should compile and make available the related meta-data.

#### ***5.4 Data Sets Integration***

Uniformity of data format and quality have a high priority. All data and related meta-data and quality indicators should be submitted by using standard codes, formats, and protocols referenced in the project handbook.

#### ***5.5 Quality Assurance***

SeaDataNet develops and applies quality assurance procedures as appropriate and feasible, and in cooperation with data sources and other organizations. The data source always retains complete responsibility for data quality. To indicate the quality control that has been applied to a specific data set, SeaDataNet utilises quality flags. The system allows re-submission of data throughout the quality control process, and thus also allow for accelerated submission of data. The reporting of suspected errors in the data will be facilitated, and that information relayed to the respective data source so corrections can be made.

#### ***5.6 Preservation of data***

For SeaDataNet to succeed, the TA data centres must assure archival systems, so that the collected data, images, products and meta-data may be safeguarded for future analysis. Inventories of data, images and products and related meta-data should be readily accessible and updated as needed on a routine basis. Long-term survival, integrity, and access to SeaDataNet data will be preserved for future generations by the TA data centres.

## 6 References

[1] Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (<http://ec.europa.eu/environment/aarhus/index.htm>).

[2] INSPIRE Directive for spatial information in the Community (<http://inspire.jrc.it/home.html>)

[3] IOC Data Policy (<http://ioc3.unesco.org/iode/contents.php?id=200>)

[4] ICES Data Policy 2006 ([https://www.ices.dk/Datacentre/Data\\_Policy\\_2006.pdf](https://www.ices.dk/Datacentre/Data_Policy_2006.pdf))

[5] WMO Resolution 40 (Cg-XII; see <http://www.nws.noaa.gov/im/wmor40.htm>)

[6] Implementation plan for the Global Observing System for Climate in support of the UNFCCC, 2004; GCOS – 92, WMO/TD No.1219.

[7] Global Earth Observation System of Systems GEOSS 10-Year Implementation Plan Reference Document (Final Draft) 2005. GEO 204. February 2005.

[8] CLIVAR Initial Implementation Plan, 1998; WCRP No. 103, WMO/TS No. 869, ICPO No. 14. June 1998.