

European Plate Observing System (EPOS) Research Infrastructure

DATA POLICY



EPOS DATA POLICY

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1. DEFINITIONS

Core Services	Both ICS and TCS (see definitions below)
Creative Commons (CC) Licences	See https://creativecommons.org/
Data, Data Products, Software and Services (DDSS).	Measurements and/or observations of physical and chemical parameters, collections thereof, and information derived from such measurements and/or observations. Data and Data Products redistributed by EPOS are provided by Suppliers to EPOS Integrated Core Services (ICS) and Thematic Core Services (TCS) and are accessible by Users. Data and data products are grouped in 4 levels: raw or basic data (level 0), data products coming from (nearly) automated procedures (level 1), data products resulting from scientific investigations (level 2), integrated data products resulting from complex analysis (level 3). Software are Computer programs or any other processing, visualization and analysis tools for treatment of Data and Data Products, also including methods and workflows or their description. Tools and Software are made available and/or accessible in EPOS through specific EPOS Services. They may be made available as software packages, libraries, or descriptions for download, and/or be made accessible for execution.
EPOS-ERIC	EPOS-ERIC is a European Research Infrastructure Consortium (ERIC), a specific legal form chosen to facilitate the establishment and operation of EPOS research infrastructure. For more information, see https://ec.europa.eu/research/infrastructures/index.cfm?pg=eric
Integrated Core Services (ICS)	Services provided by EPOS as integrated services reaching across the scientific themes/disciplines of EPOS, focusing on advanced ICT infrastructures (e-infrastructures) for discovery of and access to DDSS generation of multidisciplinary products and services, development and execution of workflows.
Metadata	Information about provenance, description, quality, processing, maturity level, and collection/generation context, which supports interoperability across disciplines. Metadata associated with Data and Data Products and Tools and Software in EPOS shall meet or exceed applicable national or European requirements.
Service Providers (SP)	Entities responsible for aggregating, collecting and ensuring access to DDSS. They supply DDSS to the EPOS Core Services (ICS and TCS) with DDSS from one or more Suppliers.
Suppliers	Entities granting rights of redistribution of their DDSS through EPOS by signing a Supplier Letter (see Appendix 1).
Thematic Core Services (TCS)	Thematic groups of Service Providers are organised in and coordinated by Thematic Core Services, which provide the scientific expertise for EPOS and interact in close connection with the user community.
User	Individual or institution that utilises the EPOS Services to access Data and Data Products and/or Tools and Software. Access includes discovery, download, execution, or any other use.

2. GENERAL INTRODUCTION

The purpose of the European Plate Observing System (EPOS) is to create a pan-European research infrastructure for solid Earth science to support state-of-the-art cross-disciplinary research activity in all fields of Solid Earth Science and to foster a safe and sustainable society.

EPOS relies heavily on the cooperation with Suppliers as a high proportion of the data are available in distributed national data repositories and not in dedicated repositories owned and operated by EPOS. Suppliers produce and deliver the data upon which the EPOS catalogue of DDSS is built. The Thematic Core Services (“TCS”) organise and coordinate the Service Providers (“SP”). The contractual link for service provision will take the form of service contracts between EPOS and the SP.

In order to foster open, free and easy access to DDSS from the SP, EPOS needs a common data policy. EPOS Data Policy applies directly to the DDSS managed by EPOS through ICS. The detailed data management plans specific to each Service Provider must be compliant with EPOS Data Policy.

EPOS Data Policy national and European legislation which are primary regulations.

3. GUIDING PRINCIPLES

EPOS Data Policy aims to promote:

- Innovation: by encouraging diversity of analysis and opinion to facilitate evaluation of alternative hypotheses and to permit the coordinated application of scientific, social, and business knowledge to generate solutions to complex challenges.
- Collaboration: among diverse disciplines to foster greater productivity and creativity.
- Efficiency: by preventing duplication of effort and by enabling secondary analyses and enhancement of existing data, permits the redirection of resources to the most promising endeavours to maximise the impact of investments.
- Accountability: by encouraging independent verification.
- Capacity Strengthening: by facilitating the education of new researchers, and enabling broader access to data for secondary analysis and stimulation of bold and innovative ideas, which is of particular importance to researchers in developing countries.

It is generally recognised that throughout Europe various scientific communities are at different stages of implementing data sharing and use different methods of data distribution. EPOS intends to work closely with Suppliers and users to ensure their diverse models and needs are accommodated. EPOS will adopt this flexible approach in recognition that one size does not fit all. This will help to reinforce open science inquiry, encourage diversity of analysis and opinion, and promote new research, adhering to principles outlined by the Organisation for Economic Co-operation and Development (OECD).

EPOS will provide transnational and interdisciplinary services that will simultaneously integrate and support national and regional infrastructures. Where there are differences in policies relating to data sharing, EPOS will encourage a culture of openness and sharing of research data within public research communities and within member countries and beyond.

EPOS intends to adopt the following key principles:

- to disseminate data and knowledge through Open Access;
- to make DDSS available in a timely manner, without undue delay and preferably free of charge taking in due account the need to differentiate between virtual and remote access and physical access;
- to follow the OECD principles for research data from public funding;
- to utilise a widely accepted community licensing scheme, i.e. Creative Commons.

EPOS Data Policy also acknowledges the ongoing work of the European Commission to foster the FAIR (Findable, Accessible, Interoperable, Reusable) principles for data access.

4. EUROPEAN LEGAL FRAMEWORK RELATED TO ENVIRONMENTAL DATA, INFORMATION AND DATABASES

EPOS Data Policy takes into account the overall European legal framework related to environmental data, information and databases. The most important regulatory documents which also impact EPOS Data Policy are:

- *Aarhus Convention* (access to environmental data),
- *INSPIRE Directive* (sharing of the spatial information among public sector organizations and access to the spatial data),
- *Database Directive* (protection of the databases),
- *Software Directive* (protection for computer programs) and
- *PSI Directive* on the re-use of the public sector information

EPOS Data Policy also recognises relevant international observation system initiatives and national policies and legislation with the aim of full and open exchange of data, metadata and elaborated data products being made available with minimum time delay and at no-cost, but in exceptional cases at minimal cost recovery.

5. ACCESS TO EPOS DATA, DATA PRODUCTS, SOFTWARE AND SERVICES

5.1 OPEN ACCESS

EPOS supports the European Commission's approach regarding data policy: "As open as possible, as closed as necessary". Reasonable restrictions that are still in line with open access principles may therefore be implemented for specific data sets, especially when their divulgation could jeopardize a potential industrial/commercial use, violate the rules on personal data protection or on confidentiality for security reasons; or for any other legitimate reason given by a Supplier. Wherever possible EPOS will support the wishes and conditions placed by Suppliers the way in which the DDSS can be used.

Procedures to approve/accept restrictions and embargo conditions will be handled by a dedicated EPOS-ERIC committee. Information on restriction and embargo conditions shall be available to a User in a clear and transparent way.

Within EPOS Data Policy, "Users" in respect of access rights and restrictions, are classified as follows:

- **Anonymous:** Access without any identification or accreditation is not permitted at the ICS level. However, if a TCS decide to grant anonymous access, the TCS should provide alternative mechanisms to monitor use and purposes to which DDSS use is being applied.
- **Registered:** Identified access requiring prior registration, which may differ from specific EPOS services.
- **Authorised:** Identified and authenticated access requiring specific permissions for particular DDSS or EPOS services to identified user group(s). Only a Registered user can become an Authorised user.

Within EPOS Data Policy, "Access to DDSS", with regard to access rights and restrictions, may be classified as follows:

- **Open:** DDSS freely available/accessible to User(s) either for download or for direct use within an EPOS Service.
- **Restricted:** DDSS that are available under the conditions set out by the SP. Restrictions to specific type of user categories, if any, should be limited to specific datasets. Restrictions may also mean that fees could be charged. While metadata shall always be available at no charge, fees, if any, should no higher than the actual cost of making the DDSS available.
- **Embargoed:** DDSS that are available only after a predefined limited time (embargo period - that cannot exceed 3 years) has passed since collection/generation. Once the embargo period has passed, DDSS may become either Open or Restricted.

Metadata (and DDSS descriptions) are always free and available at any time, even for restricted and embargoed data.

Software disseminated via EPOS may take one of three forms:

- **Acquired Software**, acquired for use by EPOS or users.
- **Contributed Software**, which may be contributed by another research infrastructure and which may have restrictions on use.
- **Generated Software**, which will be generated within EPOS.

5.2 LICENCING

5.2.1 DDSS licensing

To facilitate effective rights/ownership management, EPOS shall only redistribute DDSS after 2021 to which a licence has been applied/affixed. EPOS aims to grant one default licence set for EPOS-managed DDSS, Creative Commons 4.0. Within the Creative Commons permitted licence scheme, two licences will be adopted, CC:BY and CC:BY:NC. SP(s) have the possibility, provided it is agreed with Suppliers, where no licence type is identified to apply/affix a licence on unlicensed data on the Supplier's behalf.

5.2.2 Metadata licensing

To ensure the widest dissemination and publicity for EPOS managed DDSS, it is essential that metadata are easily and freely accessible at any time, with as few restrictions as possible. In order to achieve this, Suppliers will be encouraged to affix open licenses, preferably Creative Commons 4.0 CC:BY, to their metadata. The machine-readable version of this licence will allow User(s) to identify the relevant datasets through search engines licences filters.

5.3 QUALITY CONTROL

Quality control of the DDSS rests with the Supplier. SP are responsible for checking the quality parameters of the metadata descriptions that provide information for discovery, contextualisation and action and on provenance and traceability.

EPOS will disseminate good practice and shall provide a mechanism to obtain User feedback on DDSS quality.

EPOS will ensure a continuous process of review and assessment to verify that EPOS DDSS provision is operating as envisioned, seeking improvements and preventing/eradicating problems.

EPOS will give emphasis to controlling the quality of the services provided (e.g. response time, number of successful requests, number of peer reviewed publications).

External audit on quality assurance and quality control is also foreseen through an External Advisory Scientific Board.

5.4 LIABILITY

EPOS users register and in so doing agree to relieve EPOS of any liability for any use of the EPOS DDSS.

EPOS is not liable for any misuse of DDSS or associated metadata.

EPOS does not relieve Service Providers and Suppliers from their legal responsibilities.

5.5 PRIVACY

EPOS intends to comply with all international, European and national legislation regarding the protection of personal data and privacy.

6. INTELLECTUAL PROPERTY RIGHTS

Intellectual property rights subsisting, incorporated or contained within of any DDSS shall continue to belong to the entity/individual that owns or has generated it or holds the rights (by licence or otherwise) at the time of submission of the DDSS to EPOS, except in case where these rights have been specifically waived by the owner/generator/holder.

Suppliers are required to verify that the DDSS they provide do not, to the best of their knowledge and belief, infringe any third party intellectual property rights, and ensure that, where identified, third party interests are fully accounted for and acknowledged.

7. MANAGEMENT FOR THE EPOS DATA POLICY

Any failures regarding use of or the implementing of EPOS Data Policy shall be reported to the EPOS head office which will inform an *ad hoc committee*, whose statutes, missions and composition will be defined by EPOS-ERIC General Assembly. The committee will then take a decision accordingly.

The responsibility of the implementation and monitoring of EPOS Data Policy is that of the Service Providers. This means that there shall be a dedicated data management plan for every SP, and that every SP needs to ensure DDSS is managed efficiently and delivered according to EPOS Data Policy. In addition, the SP(s) agree to make sure the Suppliers are informed and agree that the EPOS infrastructure redistributes their DDSS (see Appendix 1).

8. POLICY REVIEW

This document is subject to revision according to changes in the law, the needs and strategy changes of EPOS. EPOS Data Policy reviews will be approved by the EPOS-ERIC General Assembly.

Appendix 1- SUPPLIER LETTER – Adaptable draft**Insert supplier logo****SUPPLIER LETTER**

1. In accordance with the EPOS Data Policy, which is available at www...; [Name of the Supplier] permits EPOS to redistribute the data and/or data products and/or software and/or services, hereinafter referred to as "DDSS", identified in the Annex A.
2. [Name of the Supplier] confirms that to the best of its knowledge and belief:
 - a. It has full rights of ownership to the DDSS and/or it has full rights to distribute the DDSS or to transfer rights to permit their redistribution by a third party;
 - b. It is not under any obligation/disability/restriction at law, contract or otherwise, which would in any manner or to any extent prevent or restrict it from entering into and fully performing the obligations contained within this Supplier Letter;
 - c. The release of DDSS in accordance with the terms of this Supplier Letter does not and will not contravene any laws or regulations;
 - d. It has taken all reasonable steps to maximise the quality of the DDSS.
3. [Name of the Supplier] hereby grants rights to permit either:
 - a. The relevant EPOS Service Provider to apply/affix the Creative Commons 4.0 CC:BY license to any Data or Data Product provided with no further licensing information. The license will be applied/affixed on behalf of [Name of the Supplier], and will in no way limit the rights of ownership or otherwise of the Supplier.
 - b. EPOS or a Service Provider to apply/affix the relevant license on any Software provided with no relevant licensing information. The license will be applied/affixed on behalf of [Name of the Supplier], and will in no way limit the rights of ownership or otherwise of the Supplier.
4. The Supplier may benefit from the EPOS Users authentication system's feedback, for information about its DDSS usage.

Place, Date, Name, Signature, Stamp