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Copernicus Evolution – Research for harmonised and Transitional-water Observation (CERTO)

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## 1 Executive Summary

This Data Management Plan (DMP) and Intellectual Property (IP) Plan details the management of data generated and collected, as well as Intellectual Property, within the CERTO project. The DMP describes the life cycle for all datasets collected, processed and/or generated by the project. It covers:

- what data will be collected, processed or generated
- how data will be handled during and after the project
- who owns a data set and with whom it is shared
- how sharing of data within and outside the project is organised
- what formats, metadata and standards the data will adhere to

CERTO data sets consist of a diverse range of types and formats, thus adhering to principles of accessibility and interoperability is important to ensure the data are useful throughout the project and to others. This DMP describes relevant procedures put in place at the start of the project.

The IP Plan covers how various types of intellectual property within the CERTO project will be governed. The types of IP specified are:

- Background IP
- Sideground IP
- Foreground IP or Results

A plan for management of any IP issues is also presented.

## 2 Scope

This document, comprising the DMP and IP Plan, is intended for internal and external use, describing the mechanisms that CERTO will put in place to ensure all public data follow the FAIR (Findable, Accessible, Interoperable, Re-usable) data management principles and Intellectual Property is effectively managed and exploited.

The Data Management and IP Plan will be updated as a “live” document during the lifetime of the project, with three scheduled release dates. The current document presents the status and planning at month 18 of the three-year project.

## 3 Data Management Plan

### 3.1 Introduction

CERTO aims to research and develop harmonisation of methods between the different Copernicus services to produce water quality data for the continuum from oceans to lakes, adding capabilities for near-coastal waters, estuaries, lagoons, bays and river systems. This will be achieved by developing a modular prototype system, with parts that can be incorporated into the existing Copernicus services and widely used open-source software. The project will produce two types of data: *in situ* observations and satellite-derived data and information. Well-curated data will stimulate and ensure smooth collaboration between the project partners and will allow the users to easily evaluate and use the data generated by the project. For dissemination and exploitation, open access to data generated in the project will help to underpin the credibility and stimulate uptake of CERTO results.

CERTO participates in the Open Research Data Pilot (ORDP) and follows the FAIR data paradigm and this is reflected in the DMP.

*In situ* data will be initially Findable through either the ESA Ocean Colour Climate Change Initiative (OC CCI) bio-optical database of ocean and coastal data ([www.esa-oceancolour-cci.org](http://www.esa-oceancolour-cci.org)) or the LIMNADES database of ground bio-optical measurements of worldwide lakes (<https://limnades.stir.ac.uk>). This will enhance their ability to be found and Re-used. As the project develops, the use of data services designed for system Inter-operability will guarantee that all open data within the project are widely Accessible now and in the future.

Satellite-derived data and information produced within the project for the case study areas and other regions around Europe will be stored online at PML in NetCDF-CF format. Products will be Findable through a data server that is compatible with Open Geospatial Consortium standards and a web-GIS portal (see WP7) to be used to demonstrate the CERTO products.

### 3.2 Data summary

#### 3.2.1 Data purpose and utility

Observation of oceanic, coastal and inland water bodies with ocean colour satellite sensors has reached full operational potential through the Sentinel 3 satellite missions in the Copernicus programme. The global societal demand for water quality information through downstream Earth Observation (EO) services is increasing and expanding into domains of public health, agriculture, aquaculture, energy and food safety, drinking water, conservation of ecosystems and biodiversity conservation, navigation, and recreational use of water resources. Near-coast, inland and transitional water bodies, however, represent a staggering range of optical and environmental diversity that has posed a significant challenge to monitoring programmes.

CERTO will focus on methods to classify waters using satellite observations, combined with the most comprehensive existing *in situ* data sets publicly available and additional extensive *in situ* data gathered within the project. Through harmonisation of the three Copernicus services involved in providing water quality data, CERTO will improve the products available to downstream service providers who make the important link to end-user communities, industries, policy-makers and monitoring agencies.

The open data strategy of CERTO plays a central role in opening opportunities to the EO sector, not merely in Europe but also in supporting downstream users and regional information providers in data-poor regions, particularly developing countries.

### 3.2.2 Data types

CERTO will generate data and information that can be categorised as one of:

- *In situ* data, either:
  - From automated instruments (e.g., on buoys, ships)
  - From dedicated field campaigns using high-end scientific instrumentation, e.g., for vertical profiling of the water column and above water radiometry
- Satellite data of inland, transitional, coastal and oceanic water bodies
- Pre-existing data, accessed in (external) databases or directly contributed by stakeholders
- Research results and derived data sets

together with other data types:

- Stakeholder/contacts database subject to the General Data Protection Regulation (GDPR).

Each of these data sources has specific characteristics and challenges which are summarised below.

#### 3.2.2.1 Automated data collection

Autonomous high-frequency hyperspectral radiometers (measuring apparent optical properties, AOP) will be deployed in the field to maximise the value of data acquired between field campaigns. These will be installed at two sites: the Tagus Estuary (Portugal) and the Danube Delta lagoons (Romania). Radiometers will increase the volume and quality of match-up data for project activities, and have a life expectancy of 3 years or less. Current projects (H2020-MONOCLE, H2020-HYPERNETS) are developing new sensors and deployment strategies to lower the acquisition and maintenance cost of these *in situ* solutions, some of which are now deployment-ready. H2020-MONOCLE has deployed its solar-tracking radiometer platform (So-Rad, by Plymouth Marine Laboratory) since 2019, supporting commercially available sensors on ships, and a modular version of the WaterInsight “WISPStation”. Prototypes from H2020-HYPERNETS for static platforms were planned to be deployed by Consiglio Nazionale Delle Ricerche (CNR) in the first year of CERTO. However, this has been delayed due to COVID restrictions, so the first prototype was deployed in April 2021 and the second prototype will be deployed in Autumn 2021. CERTO will deploy state-of-the-art instrumentation (Danube Delta and Tagus Estuary as above) supported by mutual alignment with existing H2020 projects. Data resulting from the MONOCLE So-Rad and WISPStation will be shared under an open license through the *in situ* data framework developed in H2020-MONOCLE which is designed for near-real time interoperability. Automatic radiometry data resulting from the HYPERNETS HYPSTARR will be shared under an open license through the *in situ* data framework developed in H2020-HYPERNETS.

During field campaigns, automated data collection is also being conducted on stable boat platforms along transects designed to cover optical water type (OWT) variation and land adjacency effects. Transect measurements are timed to coincide with Sentinel 2 and 3 overpasses.

Data from all automated systems will, in general, be collected at high frequency and transmitted to the storage systems available to CERTO. The So-Rad and WISPStation sensors transmit to the MONOCLE system and be available in Near Real Time (NRT), and the HYPSTARR sensor similarly transmits to the HYPERNETS system. Data acquisition, processing and transmission should all be automated with these sensors, as should quality control mechanisms.

Following data collection, most of the optical sensors require data processing, calibration and quality control. Processes have been designed to be highly automated, such as flagging of suspect data to then be inspected by the data creator/curator.

Automated high-frequency data collection for the CERTO hyperspectral radiometry sensors is estimated in the order of tens of megabytes per observation day. So-Rad systems transfer uncalibrated data for which calibration routines are kept on the MONOCLE back-end. Transfer, storage, and dissemination of these volumes is not currently seen as an operational issue.

### **3.2.2.2 Dedicated field campaigns**

The project will collect data in the case study areas (Elbe estuary/German Bight, Tagus estuary, Venice Lagoon/North Adriatic Sea, Danube Delta, Plymouth Sound/western English Channel and Curonian Lagoon) through field campaigns using handheld and manually operated instruments. This includes automated above-water sensors as described in the previous section and high-end optical sensors, e.g., for vertical profiling of the water column. The field campaigns provide the flexibility to target specific OWTs to enrich the data on the apparent optical properties, specific inherent optical properties and aerosol thickness to support the algorithm development work in CERTO. These campaigns are planned with the benefit of both the intelligence gathered from local partner knowledge and near real time updates of OWT information from the satellite data processing.

In all cases, the measurement records will be referenced by geo-location and Coordinated Universal Time (UTC) time-stamp and the measurement protocol used. These measurements are subject to further quality assurance (protocols: see Deliverable D3.3) and quality control by the operators.

Manual data collections during field campaigns are estimated to deliver at most one gigabyte of data per campaign. Transfer, storage, and dissemination of these volumes is not currently seen as an operational issue. All campaigns are being conducted in partnership with the CERTO consortium members.

### **3.2.2.3 Satellite data**

The goal of CERTO is to provide harmonised capability to monitor water quality from lakes to oceans adding capabilities for near-coastal waters, estuaries, lagoons, bays and river systems from a variety of satellite sensor systems. In the case study regions, high resolution (Sentinel-2 MSI) and medium resolution (Sentinel-3 OLCI) data will be acquired and processed into water-quality information products, making use of existing and new *in situ* data for calibration and validation.

Satellite data from relevant sensors and regions are downloaded from ESA and EUMETSAT to the data stores of PML using automated downloaders. These data are not generally backed up since they are readily available from the sources. Data are curated using the upstream processor version. They are considered the input data for CERTO and not disseminated further.

Satellite-derived data generated from the input data will be stored on PML data servers and backed up to tape systems for long term archiving. They are disseminated through a

THREDDS server with a WebGIS front-end and open geospatial consortium (OGC) data services. The URL for the front-end is <https://engage.certo-project.org/data/>. Pre-existing data

Pre-existing *in situ* datasets and those collected by or with other research projects will consist of collections of optical and biogeochemical measurements contributed by various stakeholders, either as independent data sets where CERTO is given a license to use and distribute, or as part of curated data bases (e.g., LIMNADES for inland and transitional waters) where individual licenses are assigned by the data owners with some datasets being open access and others having a request-only data licence. Access constraints will be recorded during registration of data sets in the internal-use Data Register.

Pre-existing data will also take the form of large-scale satellite data archives downloaded from space agencies (e.g., ESA and NASA) which are then utilised for further processing to a usable format. Along with other pre-existing open-access datasets including modelled data.

#### **3.2.2.4 Research results and derived data sets**

In the process of research and development, outputs will be generated in the form of publications, presentations, tables and datasets, and survey results. Such results will be stored in the project management portal for access within the project consortium: the size is not likely to exceed 100Mb per item. Public reports and deliverables will be available also through the website. The methodology is detailed in D9.1 “Dissemination Plan”. Where relevant, a digital object identifier (DOI) will be added to these results by hosting them on the Zenodo platform.

The open access requirement for H2020 publications will be honoured through the Gold Open access route, using CERTO or other project funds, or where Gold Open access is not possible we will make these available through Green Open access via relevant repositories.

#### **3.2.2.5 Stakeholder/contacts database**

A stakeholders/contacts database has been created to enable interested parties to receive further project information on a regular basis. Following the project kick-off, project partners were asked to provide contact information which is stored at PML according to the United Kingdom’s Data Protection Act and the European Union’s General Data Protection Regulation (GDPR; Regulation (EU) 2016/679). Further information on the database can be found in D10.1.

### **3.3 FAIR data principles**

All CERTO research data will be curated according to the FAIR principle, i.e., to be Findable, Accessible, Interoperable and Re-usable. In the following, a short overview is given of the building blocks and guiding principles to reach this goal. As the system is under active development, further detail will be added to the final release of this document as design decisions are concluded.

#### **3.3.1 General data documentation and guidance**

Any documentation such as measurement protocols, system descriptions and use cases will be linked within the data register and a copy will be kept in the CERTO project management portal. Documents for public dissemination are being made available on the project website.

Where data sets are ‘frozen’ to create a snapshot of available data at a given point in time, these datasets will be versioned and uploaded to public repositories.

By default, all data generated in CERTO will be openly available (see Data Access, below), with the exception of unprocessed, uncalibrated data if these have no value to the user. Such data will, nevertheless, be stored and curated. Data contributed from external sources are the exception to this rule. In such cases, data ownership and licensing will govern whether dissemination beyond CERTO is possible. Reference to existing FAIR data sources is to be preferred over duplication.

### 3.3.2 Metadata

Initially, the metadata used to describe datasets made available will follow OGC standards. As a common ontology, the CF conventions (cfconventions.org) will be followed or extended. These metadata conventions ensure that data are identifiable using appropriate search terms and keywords.

Additional metadata requirements will follow those laid out in H2020-MONOCLE, the data interoperability developments are described in D5.2 “System architecture and standards report”<sup>1</sup> and D5.3 “System user and developer handbook”<sup>2</sup>. This system is being followed to efficiently achieve CERTO project goals and to ensure that new data sources added in MONOCLE will be available to CERTO. These requirements concern data ownership, licensing, access restrictions (embargo periods), as well as geospatial parameters. The definition of the minimum and recommended metadata for CERTO data sets will be refined during the implementation of CERTO WP3.

### 3.3.3 Data access, interoperability and respecting Intellectual Property

Data generated as part of CERTO will be free of cost to the user. Data access restrictions and intellectual property rights will, however, remain as set by the dataset creator/owner where applicable. Unless specified, all data will be treated as FAIR open data. In practise, the following data access levels are foreseen:

- *open access*, not requiring registration, providing access to data identified as open without license restrictions
- *limited access*, requiring registration, providing access to open data as well as data sets with a limited license for use (e.g., non-commercial, accrediting ownership, delayed release *etc.*)
- *restricted access*, requiring registration, providing access to data owned by the user and any data sets to which this specific user has been granted access

The CERTO prototype processing chain will be developed as a Software as a Service (SaaS) module in the existing PML-based Copernicus Land Monitoring Service (CLMS) water quality processing system; and be tested on the ONDA DIAS; also, modules will be included as plugins for standalone software tools including ESA SNAP and ESA CCI Toolbox.

### 3.3.4 Data sharing and reuse

Geospatial data products for CERTO case-study regions will be publicly findable through an interoperable THREDDS data server with Web-GIS front-end. This server allows data to be selected through OGC-compliant standards by timeframe, geographical and variable name. All data provided in this manner will be free to use with appropriate credits.

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<sup>1</sup> [https://zenodo.org/record/1492271#.YNtN\\_qhKi00](https://zenodo.org/record/1492271#.YNtN_qhKi00)

<sup>2</sup> <https://zenodo.org/record/4589102>

*In situ* data from dedicated research campaigns will be added to the LIMNADES database under an open license (either fully open or non-commercial, as determined by the data owner). An embargo period of up to two years may be set to prevent external use while CERTO activities (such as quality control on the data) are carried out.

### **3.3.5 Data preservation and archiving**

Processed satellite data will be kept available for a minimum of three years after the end of CERTO. Beyond this period, e.g., if the service should no longer be deemed useful or sustainable, data will be archived at a secure open access location, insofar as data licensing permits. Novel *in situ* data taken as part of CERTO activities will be incorporated into the LIMNADES (lake-focused) and OC CCI (shelf and ocean-focused) data repositories.

Requests to remove a data set from the CERTO services can be submitted to the Coordinator and will be handled in a manner equivalent to the GDPR for personal data.

A data archive will be produced that spatially encompasses the following demonstration areas: Elbe estuary/German Bight (Germany), Curonian Lagoon (Baltic Sea), Tamar estuary (UK), Razelm Lagoon (Romania), Tagus estuary (Portugal), and Venice Lagoon (Italy). These data will be made available in a PML-hosted web-GIS portal (developed in FP7 eartH2Observe and deployed in H2020 EOMORES and MONOCLE) for visualisation by end-users. Within the project, Work Packages 7-9 are in part dedicated to planning for long-term sustainability and evolution of CERTO from a service concept into an operational service.

### **3.3.6 Data register**

An internal-use data register will be maintained, insofar as the data are not self-describing and catalogued in the services already mentioned. A snapshot will be created for each DMP release. A template is included in the Appendix.

It was expected that there would be datasets to add to the register by this point, however due to delays caused by COVID no datasets that meet the criteria for dissemination have been generated for this version of the DMP.

## **3.4 Data backups**

To safeguard original data, backups will be made at the site where they are hosted. The identified data repositories (LIMNADES, OC CCI) have backup procedures in place. The CERTO and LIMNADES data are stored on a Virtual Machine that is backed up to Cloud storage that is ISO 27001, ISO 27018, SSEA16 SOC 1 and SOC 2, HIPAA, and EU Model Clauses (EUMC) compliant with access restricted to two-factor authentication and full encryption of data at rest and in transit.

The OC CCI *in situ* database stored at PML are hosted on a RAID (Redundant Array of Inexpensive Disks) configured server to protect against disk failures. It is backed up onto a separate server within PML and an external copy exists as an additional backup. The nature of the CERTO data store is such that copies can be stored there but this is not a requirement – it is designed to function both as a centralised and distributed data system.

Copies of “raw” satellite data will, in general, not be backed-up by CERTO provided that they can be retrieved again from the source. The same applies to the use of corrected satellite and auxiliary data. Loss of such data would potentially cause delays due to the need to download them again from the source, but this will not be functionally different (at least for small regions serving as case studies in CERTO) from having to restore data from tape backups.

A number of data repositories have been set up to safeguard specific project outputs, such as software (such as the PML GitHub repository), publications (such as the Plymouth Marine Science Electronic Archive, PlymSEA), sensitive data (internal project management databases, which are backed up onto a separate PML server plus an external additional backup copy) and frozen versions of sensor data (LIMNADES, OC CCI).

### **3.5 Allocation of resources**

The development and maintenance of the CERTO project management portal is the responsibility of PML, who will continue to maintain access for at least three years beyond the end of the project.

Backup systems for the processed satellite data are in place at PML as part of its operational systems, at no additional cost to the project.

Data ingestion from ESA and EUMETSAT is part of the operational procedures of PML and other project beneficiaries, who already process global ocean and lake data for Copernicus and national services. This, therefore, comes at no extra cost to the project.

### **3.6 Ethical aspects**

Ethical aspects are mainly relevant for data of a personal nature. These data are being treated according to the ethics procedures laid out in the Ethics section of the GA and in D11.1, in summary these procedures cover the following aspects:

- Details on the informed consent procedures for the participation of humans
- Templates of the informed consent forms
- Templates of the user and stakeholder questionnaires

## 4 IP Plan

### 4.1 Introduction

Intellectual property in CERTO is governed first by the Grant Agreement<sup>3</sup>, followed by the Consortium Agreement<sup>4</sup>. The Consortium Agreement may provide more detail or override the Grant Agreement in some specific cases.

Confidentiality is governed by §10 of the Consortium Agreement and partners agree to a non-disclosure period of four years after the end of the project. As per §8.4 of the Consortium Agreement, during the Project and for a period of one year after the end of the Project, the dissemination of own Results by one or several Parties including but not restricted to publications and presentations, shall be governed by the procedure of Article 29.1 of the Grant Agreement subject to the provisions of Prior Notice and Objection.

IP rights management is a task shared between all involved SMEs (Small-to-Medium Enterprises) and research bodies within the project, which is led by PML as coordinator. Any issues regarding IP within the consortium will be discussed and decided upon by the Project Steering Group.

Exploitation of the CERTO results is vital to ensure the long-term impact of the project. A detailed Exploitation Plan will be developed in Work Package 9 in years 2 and 3 of the project.

### 4.2 Relation to the Consortium Agreement

There are three types of Intellectual Property relevant to the work within CERTO, which are defined below.

- 1) Background IP
- 2) Sideground IP
- 3) Foreground IP or Results

#### 4.2.1 Background IP

Background IP is defined as:

“Any data, know-how and/or information, whatever its form or nature (tangible or intangible) – including any rights such as intellectual property rights – which are needed to carry out the project or exploit its results.”

[http://ec.europa.eu/research/participants/portal/desktop/en/support/reference\\_terms.html#](http://ec.europa.eu/research/participants/portal/desktop/en/support/reference_terms.html#)

#### 4.2.2 Sideground IP

Sideground IP is defined as:

“It is very important to also consider that one of the partners may develop or acquire IP in parallel to the project work. This is called sideground which, contrary to the background, is tangible or intangible generated over the course of the project but not related to it.”

[https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/FS\\_How\\_to\\_manage\\_IP\\_in\\_H\\_2020\\_grant\\_preparation\\_0.pdf](https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/FS_How_to_manage_IP_in_H_2020_grant_preparation_0.pdf)

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<sup>3</sup> Grant Agreement number: 870349 — CERTO — H2020-SPACE-2018-2020/H2020-SPACE-2019

<sup>4</sup> CERTO Consortium Agreement, version 1, 2019/11/20

### **4.2.3 Foreground IP or Results**

Foreground IP is defined as:

“Any tangible or intangible output of the action (such as data, knowledge and information, whatever their form or nature, whether or not they can be protected), which are generated in the action, as well as any attached rights, including intellectual property rights.”

[http://ec.europa.eu/research/participants/portal/desktop/en/support/reference\\_terms.html](http://ec.europa.eu/research/participants/portal/desktop/en/support/reference_terms.html)

The exploitation and management of knowledge and IP are detailed in §2.2.1.1.2.1 of the Grant Agreement. Further information on ownership, transfer and dissemination of Results are specified in §8 of the Consortium Agreement.

### **4.2.4 Ownership of IP**

Background IP is owned by or licensed to a single partner.

Sideground IP is owned by one or more partners within the consortium.

Foreground IP/results are owned by the partner who develops them. Joint ownership is governed by Grant Agreement Article 26.2, which says:

“Two or more beneficiaries own results jointly if:

- (a) they have jointly generated them and
- (b) it is not possible to:
  - (i) establish the respective contribution of each beneficiary, or
  - (ii) separate them for the purpose of applying for, obtaining or maintaining their protection.”

### **4.2.5 Access rights to Background IP**

Background IP that is needed from each consortium partner is listed in Attachment 1 of the Consortium Agreement. Any partner may add further Background IP during the project by written notice to the other partners. Modification or withdrawal of Background IP previously identified will require approval from the Project Steering Group.

§9.1 of the Consortium Agreement specifies the Access Rights to Background IP.

Specific limitations and/or conditions for Exploitation of Background IP have also been specified in Attachment 1 of the Consortium Agreement.

## **4.3 Exploitation of Results**

The CERTO consortium will promote exploitation of the results through the Exploitation Strategy developed in Work Package 9. The envisaged R&D to produce the CERTO prototype will constitute new knowledge that will be publicly disseminated through presentations and scientific/technical publications, and, therefore, are not subject to IP protection. Other specific products and the source code will be subject to IP protection.

Identification and protection of commercially or otherwise exploitable project outputs and their financial elements, including potential patents, will be undertaken as part of the Exploitation Strategy (D9.2 & D9.3). The CERTO Exploitation Strategy will involve the following elements:

- Protecting eventual sideground and foreground IP generated during the project
- Connecting to, expanding and developing the international network of project partners, involving start-ups, SMEs and other companies, as well as regional, national and European authorities and associations such as the European Association of Remote Sensing Companies (EARSC)
- Stimulating uptake of project outcomes within the business sector
- Finding further funding for follow-on networking, R&D and business development activities.

Project findings that may lead to patents will be carefully evaluated within the consortium. The results obtained within the project framework will be disseminated only after potential patent applications have been considered and filed.

Access rights to results for exploitation is governed by §9.4.1 of the Consortium Agreement.

## **4.4 Registration of IP**

### *Background*

Background IP for each consortium partner is listed in Attachment 1 of the Consortium Agreement. It will also be included in the internal-use IP register (a template is included in the Appendix).

### *Sideground*

Sideground IP will be recorded in the internal-use IP register.

### *Foreground/Results*

- Data – Data Management will be carried out as per §3 of this document. CERTO will participate in the Open Research Data Pilot (ORDP) and therefore data access rights are not an issue.
- Algorithms/Software - Specific Provisions for Access Rights to Software are detailed in §9.8 of the Consortium Agreement.
- Other - Project findings that may lead to patents will be identified and carefully evaluated by the consortium within Work Package 9.

### **4.4.1 Internal procedures regarding exploitation of Results (IP)**

Internal procedures for organisation of the exploitation of Results, covering both exploitation for exclusively non-commercial and other than non-commercial purposes, will be provided in the Exploitation Plan Document (D9.2 and D9.3) in WP9. Developments or changes in interests for exploitation of Results over the project will be continuously reviewed by the Project Steering Group at regular scheduled meetings. In the case of high urgency for an exploitable result to be reviewed, the procedure laid out in §6.3.1.2 of the Consortium Agreement will be followed.

## 5 Appendix

### Data Register Template

The example shows the information collected through the data register. Included are descriptions of the fields and an example covering Earth observation data.

Organisation	Dataset reference & Name	Dataset description/outline			Standards & metadata	How will data be shared	Software/protocol required for sharing	Data access policy (open/locked/partial - give details, e.g. embargo time)	Location of storage
<i>Name of organisation providing the data. Also reference any other ownership, i.e. if you have bought commercial data and you have rights to use but must attribute</i>	<i>A unique reference label</i>	<i>Simple description of the dataset, try to include as much information as possible</i>	<i>Spatial Resolution &amp; extent</i>	<i>Temporal resolution and extent</i>	<i>Any standardised metadata that accompanies the dataset</i>	<i>List data services or custom websites</i>	<i>List the protocols available for data access</i>	<i>Data policy, such as groups that can use, whether it is only accessible to project partners or whether there is a time based embargo</i>	<i>Where and how data will be stored</i>
<b>Example:</b> <b>PML</b>	WCO in situ sensors	Western Channel Observatory, multiple sensors on buoys and ships	50.4° – 49.9 N 4.53° - 3.87°W Multiple stations	Less than hourly	<a href="https://westernchannelobservatory.org.uk/data.php">https://westernchannelobservatory.org.uk/data.php</a>				

## IP Register Template

Organisation	Co-owners	IP Reference & Name	IP type	Accepted by Project Steering Group	Report to EC as innovation	Short Description	IP Type	References	Links to other IP	For background IP only	
										Specific limitations and/or conditions for implementation	Specific limitations and/or conditions for Exploitation
<i>Name of lead owner organisation</i>	<i>Indicative %</i>	<i>A unique reference label</i>	<i>Background/Sideground/Foreground</i>	<i>Date</i>	<i>Yes/No</i>	<i>10 words or less</i>	<i>Data/Algorithm/Software/Other(describe)</i>	<i>Publications/deliverables</i>	<i>Refer to other IP reference</i>	<i>Article 25.2 Grant Agreement</i>	<i>Article 25.3 Grant Agreement</i>