



## An Ecosystem of Citizen Observatories for Environmental Monitoring

### WeObserve D1.3 WeObserve Data Management Plan

Work package	WP1: Project Coordination, Management and Support
Task	Task 1.1: Project and consortium administrative management
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#### Partners



## Revision and history chart

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<b>0.1</b>	17/07/2019	Inian Moorthy	Draft
<b>0.2</b>	30/07/2019	Inian Moorthy	Content added to Section 2-6
<b>0.3</b>	31/07/2019	Inian Moorthy, Dahlia Domian	Review and edits
<b>1.0</b>	31/07/2019	Inian Moorthy, Dahlia Domian	Final submitted version

## Table of Contents

<b>1</b>	<b>Project Summary</b>	<b>6</b>
<b>2</b>	<b>Data Summary</b>	<b>7</b>
2.1	Types of data	8
<b>3</b>	<b>Data Preservation</b>	<b>9</b>
<b>4</b>	<b>Data Sharing and Publication</b>	<b>9</b>
<b>5</b>	<b>Data Security</b>	<b>10</b>
<b>6</b>	<b>Ethical Aspects</b>	<b>10</b>

## List of abbreviations and acronyms

Abbreviation	Meaning
AMGA	Annotated Model Grant Agreement
CO	Citizen Observatory
CoP	Community of Practice
CSA	Coordination and Support Action
DMP	Data Management Plan
DOI	Digital Object Identifier
ORD	Open Research Data
FAIR	Findable, Accessible, Interoperable, Reusable
GDPR	General Data Protection Regulation
GEOSS	Group on Earth Observations
MOOC	Massive Open Online Course



## Executive Summary

As a Coordination and Support Action (CSA), WeObserve is part of the Horizon 2020 Open Research Data (ORD) Pilot. The ORD Pilot aims to improve and maximise access to and reuse of research data generated by Horizon 2020 projects. As a requirement of the ORD Pilot, this deliverable provides the initial WeObserve Data Management Plan (DMP) for the first period of the project (18 months), describing the life cycle of the data collected, processed and generated. The deliverable provides an overview of the type of data collected within WeObserve and the plans to facilitate potential reuse of the data while addressing FAIR (Findable, Accessible, Interoperable, Reusable) principles. This deliverable is intended to be a living document that will be updated throughout the lifetime of the project, whenever significant changes arise, e.g., when data sets are added or there are changes in the project that affect the management of the data.

# 1 Project Summary

WeObserve is a Horizon 2020 Coordination and Support Action (CSA) that tackles three key challenges Citizens Observatories face: awareness, acceptability and sustainability. The project aims to improve the coordination between existing Citizen Observatories (COs) and related regional, European and International activities. The WeObserve mission is to create a sustainable ecosystem of COs that can systematically address these identified challenges and help to move citizen science into the mainstream.

To achieve this mission, the WeObserve project has identified detailed objectives, which include:

1. Develop communities of practice around key topics to assess the current CO knowledge base and strengthen it to tackle future environmental challenges using CO-driven science,
2. Extend the geographical coverage of the CO knowledge base to new communities and support the implementation of best practices and standards across multiple sectors,
3. Demonstrate the added value of COs in environmental monitoring mechanisms within regional and global initiatives such as GEOSS, Copernicus and the UN Sustainable Development Goals, and
4. Promote the uptake of information from CO-powered activities across various sectors and foster new opportunities and innovation in the business of in-situ earth observation.

To address these objectives, the project is organized into five work packages (WP), within which various forms of data are collected or generated not only by the WeObserve consortium, but also by contributing stakeholders. More specifically, the five work packages and their respective leads are:

WP1: Project Coordination, Management and Support → IIASA

WP2: Co-create and Strengthen the Citizen Observatories Knowledge Base → IHE-DELFT

WP3: Stimulate uptake of the Citizen Observatories Knowledge Base → UNIVDUN

WP4: Facilitate adoption into Earth Observation initiatives → CREAM

WP5: Dissemination, Communication and Outreach → ICCS.

During the implementation of the WPs, there are various types of data that are created or collected, and the management life cycle of this data requires careful attention. As such, this deliverable represents the initial WeObserve Data Management Plan (DMP) for the first period of the project (18 months), describing the life cycle of the data collected, processed and generated. This DMP has been developed following the Horizon 2020 guidelines with additional guidance from DMPonline, as suggested by the European Commission. We provide an overview of the type of data collected within WeObserve and the plans that the project uses to manage and protect the data. The DMP is intended to be a living document where modifications and adaptations are integrated as the project is implemented. Key topics addressed within the DMP include a) a description of the types of data that will be collected, generated, or processed, b) whether and how the data will be made openly accessible, and c) the handling of data during and after the project. Furthermore,



WeObserve brings together relevant actors and stakeholders within the domain of citizen science, and therefore personal data is also acquired during the project. Consequently, the consortium has actively taken measures to ensure compliance with the EU General Data Protection Regulation (GDPR)<sup>1</sup> in the use and handling of personal data.

## 2 Data Summary

This section provides a summary of the data within the WeObserve Project. The purpose of the datasets within the project is to not only to build a communication network with relevant citizen science actors and practitioners, but also to generate a knowledge base to be exploited using FAIR (Findable, Accessible, Interoperable, Reusable) principles. The key datasets associated with the project are outlined in Table 1.

Table 1: Overview of the key datasets within WeObserve

WeObserve Datasets	Related WP
<b>List of newsletter subscribers</b> <ul style="list-style-type: none"> <li>- Data submitted when someone subscribes to the WeObserve newsletter and agrees to the WeObserve privacy policy</li> </ul>	5
<b>List of participants in the Communities of Practice (CoPs)</b> <ul style="list-style-type: none"> <li>- Data submitted when someone joins the mailing list of a WeObserve CoP. All CoP members agree to the WeObserve privacy policy and the Terms of Reference (ToR) and guidelines for CoPs (D2.2), and are contacted for F2F forums and on-line meetings</li> </ul>	2
<b>Citizen Observatories landscape mapping</b> <ul style="list-style-type: none"> <li>- Dataset associated with the WeObserve EU Citizen Observatories Landscape Report</li> </ul>	2
<b>Knowledge Base from activities within CoPs</b> <ul style="list-style-type: none"> <li>- Outcomes of the WeObserve CoPs</li> </ul>	2
<b>WeObserve learning programme</b> <ul style="list-style-type: none"> <li>- Toolkits and course material (photos, videos) for the WeObserve Massive Open Online Course (MOOC)</li> </ul>	3
<b>WeObserve project outputs (i.e., deliverables)</b> <ul style="list-style-type: none"> <li>- Project deliverables that are not specifically research data</li> </ul>	All WPs

The listed datasets support the creation of the [WeObserve knowledge platform](https://www.weobserve.eu/) (https://www.weobserve.eu/), which is the main entry point for the project and the backbone of communication and dissemination activities. Further, the WeObserve consortium is taking measures to ensure that the scientific research data produced

<sup>1</sup> Regulation (EU) 2016/679 (GDPR) on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and its implementations at Member States level, entering into force on 25 May 2018, and the subsequent implementations at Member States level



within the project will satisfy the relevant criteria defined in guidelines on data management in Horizon 2020, namely:

1. **Discoverability:** To aid discoverability of the data sets, it is aimed to obtain digital object identifiers (DOIs) where possible. In addition, the underlying scientific publications (reports and peer-reviewed journal articles) will cross-reference these data sets.
2. **Accessibility:** To ensure accessibility beyond the duration of the project, the use of proprietary data formats will be avoided. In addition, wherever web-interfaces will be applied to display and visualize the data in a convenient way, the underlying data will also be made accessible in numerical form to encourage reuse.
3. **Assessability and intelligibility:** The intention is that data sets will be made available to reviewers of the resulting publications to aid transparency in the review process.
4. **Usability beyond the original purpose for which it was collected:** All data sets produced in WeObserve are intended to be used also outside the project. Synergies with other COs and citizen science related projects have shown that re-analysis and use of the data beyond the original purpose is pursued heavily if accessible via the WeObserve knowledge platform.
5. **Interoperability to specific quality standards:** WeObserve outputs (namely, datasets associated with the landscape mapping (WP2)) will use data formats and metadata standards collected in a spreadsheet (Excel format) to maximize interoperability.

## 2.1 Types of data

### Personal data

A limited amount of personal data is collected within WeObserve for a variety of purposes, which include the WeObserve newsletter, toolkits survey and online learning course survey.

The types of personal data collected within WeObserve include:

First Name  
Last Name  
Affiliation  
Email address

### Other types of data

Due to the nature of the WeObserve project we will collect other types of data such as:

Data from surveys (toolkits, online course)  
Data from questionnaires (CoP registration)  
Data from CO landscape inventory  
Digital media data (photos, videos)  
Publications  
Reports & Deliverables

### 3 Data Preservation

The WeObserve project database will be designed to remain operational for 5 years after project end. By the end of the project, appropriate datasets will be transferred to the ZENODO repository, which ensures sustainable archiving of the final research data.

### 4 Data Sharing and Publication

The WeObserve consortium will conform to the Horizon2020 Open Access mandates including Gold Open Access and Green Open Access (or self-archiving) for all scientific publications produced. As a minimum, all publications will be available via Green Open Access, e.g., through OpenAIRE, ResearchGate and repositories supported by individual institutions such as IIASA's own PURE repository. Although some funds have been set aside for Gold Open Access, WeObserve consortium partners will be encouraged to publish via this route, using in-kind contributions from their institutions to fund this where possible.

Additionally, metadata will maximise the discoverability of publications and ensure the acknowledgment of EU funding. Bibliographic data mining is more efficient than mining of full text versions. As such, the inclusion of metadata is necessary for adequate monitoring, production of statistics, and assessment of the impact of H2020. In addition to basic bibliographic information about deposited publications, the following metadata information is expected:

- EU funding acknowledgement
  - “This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement no 776740”
- Peer Reviewed type (e.g., accepted manuscript; published version).
- Embargo Period (if applicable):
  - End date
  - Access mode
- Project Information:
  - Grant number: “776740”
  - Name of the action: “Coordination and Support Action”
  - Project Acronym: “WeObserve”
  - Project Name: “An Ecosystem of Citizen Observatories for Environmental Monitoring”
- Publication Date:
- Persistent Identifier:
  - Authors and Contributors. Wherever possible, identifiers should be unique, non-proprietary, open and interoperable
- License (if applicable):
  - Granting appropriate licence options from Creative Commons

## 5 Data Security

### Personal data

WeObserve research and stakeholder interaction – both online and face-to-face – involve the potential processing of the personal data of participants. Participant consent procedures are also described in D6.1 Ethics Requirements Report, regarding personal data collection, storage and protection. Project partners ensure that WeObserve activities are in compliance with national and EU legislation, in particular Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (and in compliance with the H2020 Annotated Model Grant Agreement (AMGA) article 39 on processing of personal data, and article 34 on ethics) and the European Union GDPR, due to replace the Data Protection Directive 95/46/EC, and designed to harmonize data privacy laws across Europe for the protection of EU citizens' data privacy. The Consortium has undertaken all appropriate organizational and technical measures to ensure that the data collected in the framework of the present declaration are processed according to the legislation for the protection and storage of personal data for a period of 5 years after the end of the WeObserve project for the purposes described above. We take appropriate measures to ensure that all personal data are kept secure, including security measures to prevent personal data from being accidentally lost or used or accessed in an unauthorized way. Those processing user information do so only in an authorized manner and are subject to a duty of confidentiality.

It is noted that, according to the GDPR (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016), participants may exercise the following rights that derive from the Regulation:

- Right of access and right to rectification for inaccurate personal data
- Right to erasure of personal data if they are not necessary for service provision
- Right to restrict processing of your data
- Right to object to the processing of your data
- Right to data portability, namely right to receive your data in a structured, commonly used and machine-readable form so they can be transferred to another data processor.

Additionally, participants have the right to submit a written complaint to the responsible supervisory body for personal data protection in each country.

## 6 Ethical Aspects

Based on the ethics screening by the European Commission, the project was flagged for two potential issues, namely the involvement of human participants and the protection of personal data. WeObserve abides by the provisions of the currently applicable EU legislation on data protection for the collection and processing of personal data in meetings, surveys, interviews and dissemination activities. All participants are required to provide consent to the terms and conditions and the WeObserve privacy policy for any project data preservation or sharing. Additional details regarding the ethical considerations, including templates of the consent forms are provided in D6.1 Ethics Requirements Report.



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