



An Ecosystem of Citizen Observatories for Environmental Monitoring

CoP1 - Co-designing citizen observatories and engaging citizens Inception Report [Final]

Prepared by Uta Wehn (IHE Delft, Chair CoP1) and Linda Velzeboer (IHE Delft)

3 September 2018

WeObserve Partners



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 776740.

Table of contents

List of abbreviations and acronyms.....	iv
Version history.....	iv
1 Introduction.....	1
1.1 Background of the WeObserve project.....	1
1.2 Purpose of the WeObserve Communities of Practice	1
1.3 Purpose and structure of this document.....	1
2 Scope of CoP1 – <i>Co-design and citizen engagement</i>	2
2.1 Citizen Science and Citizen Observatories	2
2.2 Problem statement and relevant themes.....	2
2.3 Objectives.....	4
3 Business case	7
3.1 What are the needs for this CoP?	7
3.2 What are the benefits of the work done by the CoP?	7
4 Target audiences for CoP1	8
5 CoP1 Activities	9
5.1 List of activities.....	9
5.2 Overview of timeline	10
6 Communication agenda	11
6.1 Internal communication	11
6.2 Communication with the WeObserve Consortium	11
6.3 External communication.....	11
7 Foundation members	12
8 Ways of working.....	14
8.1 Periodic activities	14
8.2 Timing of meetings.....	14
8.3 Linked initiatives	14
9 Policies and procedures	15
9.1 Opting in	15
9.2 Principles of Conduct	15

9.3 Voting for publicly released results	15
9.4 Including or deprecating activities	15

List of abbreviations and acronyms

Abbreviation	Meaning
CoP	Community of Practice
CS	Citizen Science

Version history

Version	Date	Main author	Summary of changes
0.1	18/06/2018	Uta Wehn	Draft outline
0.2	29/06/2018	Linda Velzeboer	Inclusion of CoP1 launch material
0.3	10/07/2018	Uta Wehn	Processing of CoP1 launch discussion into objectives and activities; edits throughout
0.4	15/08/2018	Linda Velzeboer	Inclusion of CoP1 members' comments during telco and in writing
1.0	3/9/2018	Uta Wehn	Processing of comments; edits throughout
1.1	15.11.2018	Mohammad Gharesifard	Revision of section 7 based on CoP1 members' indication of personal data sharing permission

1 Introduction

1.1 Background of the WeObserve project

The WeObserve consortium aims to bring together the current set of European H2020 COs, to enable improved coordination between these COs and to promote related activities at the regional, European and international level. WeObserve will coordinate and deliver a crucially needed CO knowledge framework to avoid duplication, share best practices as well as identify barriers and synergies. This framework will also promote standards to ensure interoperability, maximize impact and facilitate uptake by environmental authorities and other sectors (such as the private sector and philanthropists) to ensure the sustainability of CO initiatives. Raising awareness and sharing this knowledge framework will not only foster the development of a sustainable ecosystem of citizen observatories, but also extend the geographical coverage of citizen science to new communities. The anticipated knowledge framework will span across sectors, national boundaries and language barriers as well as the public and private sectors.

The aim of WeObserve is to create the conditions for a sustainable ecosystem of COs that can tackle the identified challenges of awareness, acceptability and sustainability. A coordinated and coherent approach is therefore needed among existing COs and relevant communities, with inclusion of past, present and future projects at national, regional, European and potentially international scales. This approach underpins the action-oriented mission of WeObserve, which is to: *Move citizen science into the mainstream by building a sustainable ecosystem of citizen observatories and related activities.*

1.2 Purpose of the WeObserve Communities of Practice

In order to consolidate practice-based knowledge on COs that is dispersed among various stakeholders, WeObserve Task T2.2 is launching and coordinating dedicated Communities of Practice (CoPs) as a key mechanism for consolidating the knowledge inside as well as beyond the WeObserve consortium.

Initiating the CoPs will serve as the vehicle for sharing information and knowledge on selected key thematic topics related to COs, strengthening the knowledge base about COs in order to move citizen science into the mainstream of environmental management and decision making. The WeObserve Communities of Practice (CoPs) are therefore the (virtual) place where diverse stakeholders who share a joint (practice-oriented) interest in citizen science can work together towards concrete solutions, tangible examples and tools by collating their experiences and lessons learned.

1.3 Purpose and structure of this document

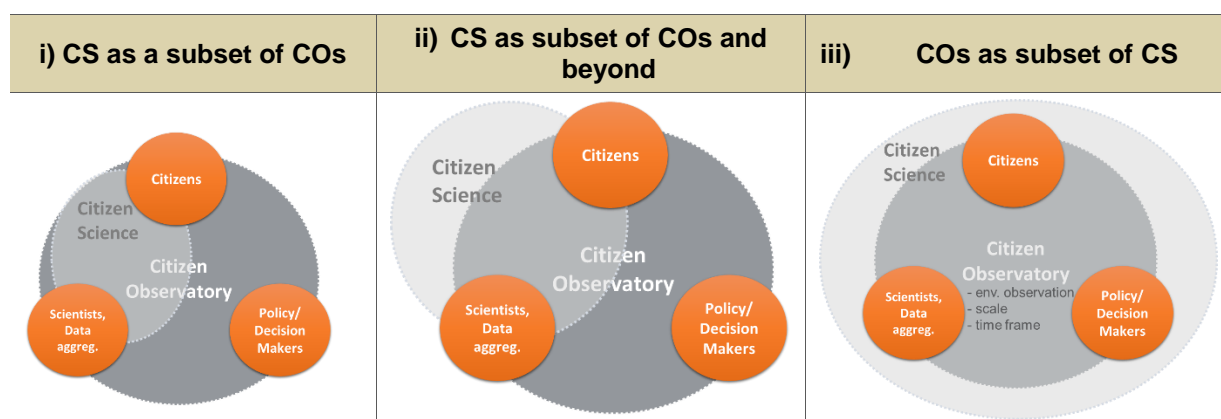
Before starting its activities, each CoP needs to define its objectives in a way that they are specific, measurable, achievable, relevant and timely (SMART), whilst taking into consideration best practices from relevant past and/or ongoing initiatives. The objectives for CoP1 on 'co-designing citizen observatories and engaging citizens' are captured in this inception report, as well as the planned activities, target audiences, ways of working and timeline for CoP1.

This document will be approved by the ‘foundation members’ of the CoP and will be made public as reference for other people who may express interest in the future. Future members should adhere to the principles outlined in this document to join CoP1.

2 Scope of CoP1 – *Co-design and citizen engagement*

2.1 Citizen Science and Citizen Observatories

In the context of the WeObserve project, the core focus is on citizen observatories rather than citizen science at large. During the CoP1 Launch Workshop in Geneva, the following delineations between Citizen Science and Citizen Observatories were discussed (see table).



Consensus among the CoP1 launch workshop participants emerged on version iii), namely that COs present a specific form of Citizen Science, characterised by their focus on observing the environment (rather than other phenomena), the scale of their activities (typically local) and their time line (typically long term).

2.2 Problem statement and relevant themes

Knowledge on co-designing citizen observatories and engaging is dispersed among various stakeholders, making it difficult to learn about common successes and challenges across projects. *Many organisations have valid and important practice-based knowledge, but it is not brought together in such a way that a more general methodology can be developed.*

The specific themes that were deemed relevant for this CoP by the participants of the CoP1 launch workshop (held in Geneva on 6 June 2018) are the following:

Related to types of engagement and strategies

- Long-term citizen engagement
- Barriers and motivations to engagement (push and pull)
- Incentives and barriers for various stakeholders
- Youth versus older participants – how to engage?
- Different levels and types of engagement (related to the challenges of awareness, acceptability and sustainability)
- Engagement strategies for CO co-design based on Incentives & Barriers
- Education engagement strategies

- Long-term engagement of communities
- Citizen engagement strategies: what works
- Engagement strategy related to intercultural differences (west – east)
- Strategies to ensure citizen engagement – incl. broadening demographic of participants
- Designing COs that promote learning, interaction and creativity as routes to foster engagement
- Broaden geography of citizen observatories
- Engaging with potential resource providers to more readily respond to emerging issues/gaps

Related to sustainability

- Developing models to ensure sustainability post-funding
- Up-skilling citizens (e.g. technology, data literacy)
- How best to handle/facilitate process of developing ownership by citizens
- Maintaining engagement in the long run: sustainability, what happens after
- Flexible processes – how to create flexible processes to let people jump in and out easily

Related to co-creation

- Co-design method validation
- How best to identify 'real' opportunities for co-design creation (requirements/conditions)
- Importance of co-design for sustainability (related to all three challenges)
- Design for multiple stakeholders
- Co-design methods and tools (for different scales – local, F2F, online and different sectors)
- Role of technology in co-design process
- Bottom-up design
- Co-design versus acceptability by stakeholder communities
- Meeting the personal goals of engagement
- Research forming the research questions and research design
- Strengthening communities in how to refine/formalise their perceived gaps in policy, planning or practice

Related to communication/visualisation

- Gamification
- How to make a CO visible?

Related to impact

- Added value of COs for communities/citizens and for funders
- How could a CO support data advocacy?
- How could a CO support research?
- Co-designing actions for change (localised → movement)
- How do you measure engagement (impact performance indicator)?
- Scaling up, e.g. in engagement from local to larger scale efforts
- Horizontal scale up/growth of local/regional CO projects/case studies

Related to user stories/motivations

- Participant motivations and how to meet these (related to the three challenges)
- How to create useful user stories for the COs?
- Storytelling for engagement
- Participant/community recognition and acknowledgement

Related to knowledge sharing

- Synergies between projects in terms of effective dissemination – knowledge sharing
- Methods/tools exchange

Conclusion on CoP1 thematic focus: a wide range of specific topics was tabled. In order to keep the scope of CoP1 manageable, to delineate CoP1 from CoP2 (on Impact and value of citizen observatories for Governance) and to ensure that tangible results can be achieved, it is proposed that the following themes are prioritised initially:

- **Strategic ¹ engagement practices:** strategic efforts to engage different (demographic, geographic) target groups based on understanding of incentives and barriers
- **CO co-design toolbox:** CO co-design conditions, versions and tools

2.3 Objectives

CoP1 aims to bring the knowledge of different stakeholders together to address incentives and barriers for participation and to devise engagement strategies. Ultimately, the resulting insights will be brought together in a WeObserve 'Cookbook' on citizen observatories.

For CoP1 specifically, the following objectives were mentioned by the participants during the launch workshop in Geneva on 6 June 2018:

¹ i.e. more specific, focused and targeted

Objectives proposed by Launch Workshop table 1

Summary	Post its
<i>Provide clarity of terms</i>	<ul style="list-style-type: none"> • Expert to translate • How to set up a CO? Toolbox, best practices • Citizens to co-design CO toolbox • Create awareness • Make it fit for different disciplines • Engagement, technology, co-design, sustainability, feed into cookbook • Messages for citizens/communities, local authority • Clarity in defining, illustrating terms – accessible
<i>Make sure that themes feed into cookbook</i>	
<i>Practice what we preach: co-create insights</i>	

Objectives proposed by Launch Workshop table 2

Summary	Post its
<i>To collect lessons from projects – what works but also especially what didn't work</i>	<ul style="list-style-type: none"> • To be a signpost to existing projects and initiatives (to avoid duplication) • Regarding co-design and engagement: collect lessons learnt from projects and initiatives – both good and bad • Facilitating flexibility in the co-design process and the need to engage a broader demographic
<i>Signpost existing observatories – repository: go talk to them (explanation, not duplication); link with WeObserve landscape report</i>	

Objectives proposed by Launch Workshop table 3

Summary	Post its
<i>Monitoring outside CoP activities</i>	<ul style="list-style-type: none"> • Monitoring the actionable knowledge in new COs • Demographic (specific methodology used) • Methods resource of CoPs and further use • Diversify active participation in CoPs • Monitor impact of CoP knowledge/resources • Format for wider impact (cookbook?) • CoPs to produce policy briefs? • CoP to legitimise CO practices
<i>Diversifying CoP members</i>	
<i>Resource database</i>	

Summary	Post its
<i>Increasing demographic scope of methodologies</i>	<ul style="list-style-type: none"> • Scaling CoP begins with us • Clear plan for dissemination • Consider what we can offer: evaluate EU proposals, policy briefs (for different stakeholders and outputs) • Consider the CoP membership – should we invite citizen representatives and policy makers? • Document successes and failures • What is the ‘point of difference’ with this initiative? Potential partners that may help keep it sustainable will need clear messages on this aspect.

Synthesizing the detailed objectives mentioned above together, the proposed objectives for CoP1 are as follows:

Overall objective of CoP1: *To intentionally become an effective CO knowledge resource on co-design and citizen engagement (by 2019) to the CoP1 members and other constituencies that may benefit from this CO expertise.*

Specific CoP1 objectives:

1. To identify and define strategic engagement practices and CO co-design aspects and elements.
2. To capture lessons learned (from success and failure) from the implementation of strategic engagement practices and CO co-design versions and tools in differing conditions.
3. To share these methods and lessons learned in CoP1, via the WeObserve Cookbook on Citizen Observatories and via other means.

3 Business case

3.1 What are the needs for this CoP?

As identified in the problem statement in section 2, knowledge on co-designing COs and engaging citizens is dispersed among various stakeholders, making it difficult to learn about common successes and challenges across projects. Many organisations have valid and important practice-based knowledge, but it is not brought together in such a way that a more general methodology can be developed.

3.2 What are the benefits of the work done by the CoP?

CoP1 serves as a platform for CO practitioners to codify these emerging and practice-based insights in order to strengthen the CoP1 members' own activities and to make the generated insights, lessons learned and a more general methodology available to other interested stakeholders outside CoP1.

The methods captured in the Cookbook can be used by many different types of organisations when they are developing citizen observatories. This will help strengthen existing as well as emerging CO initiatives and projects. With the Cookbook they will be better able to co-design the citizen observatories in a meaningful way, and to engage citizens throughout the process.

4 Target audiences for CoP1

The different target audiences mentioned by the CoP1 participants in the launch workshop are the following:

- Citizens
- Local communities
- Local authorities
- Engaged communities
- Activists
- Scientists
- NGOs
- Citizens 'allergic' to science
- Policymakers
- Individuals/communities that want to create a CO
- Groups from the model – who would take up CO practice
- Coordinating with other EU projects
- Invite other members (policymakers etc.)
- Officers from EU – demanding for reviewers
- ECSA and COST Action (sustainability)

These can be narrowed down to the following stakeholders/groups:

- **Citizens and local communities** (those that are already engaged or are interested in setting up a CO)
- **NGOs** and activists (civil society)
- **Policy makers** – at the local, national and international (EU) level
- **Research/academia**
- Similar **projects** at local and EU level
- **Networks** (e.g. ECSA and COST Action)
- **Sponsors/partners**

5 CoP1 Activities

5.1 List of activities

In order to achieve its objectives, CoP1 aims to undertake the following activities:

CoP1 Objectives	Activities to achieve objectives
Obj. 1: <i>To identify and define strategic engagement practices and CO co-design aspects and elements.</i>	<ul style="list-style-type: none"> • Set up glossary and template to categorise <u>strategic engagement practices</u> • Set up glossary and template to categorise <u>CO co-design conditions², versions³ and tools</u> • Inventorise engagement practices and co-design practices from CoP1 members and other projects (e.g. via WeObserve landscape report) • Jointly analyse and synthesize terminology across projects • Regularly repeat inventorisation to capture emerging terminology from additional initiatives • ...
Obj. 2: <i>To capture lessons learned (from success and failure) from the implementation of strategic engagement practices and CO co-design versions and tools in differing conditions.</i>	<ul style="list-style-type: none"> • Set up template to capture steps and aspects (incl. success and failure) in engagement practices • Set up template to capture actual CO co-design conditions, versions and tools in projects and initiatives • Apply template to projects from CoP1 members and other projects (e.g. via WeObserve landscape report) • Jointly analyse and synthesize lessons learned across projects • Develop a decision-tree for methods related to citizen science and engagement, following for example the method outlined here • Regularly repeat inventorisation to capture emerging engagement and co-design approaches from additional initiatives • ...
Obj. 3: <i>To share these methods and lessons learned in CoP1, via the WeObserve Cookbook on Citizen Observatories and via other means.</i>	<ul style="list-style-type: none"> • Co-design with end users how captured information and lessons learned are to be presented (in WO Cookbook) • Identify suitable case studies • Prepare case study information • Finalise information for the WO Cookbook • Identify outreach opportunities (for demonstration, videos, WO Cookbook, etc.) to feed methods, lessons learned and case studies into ongoing CO projects and initiatives • Undertake outreach opportunities • Training and dissemination through the WeObserve MOOC • ...

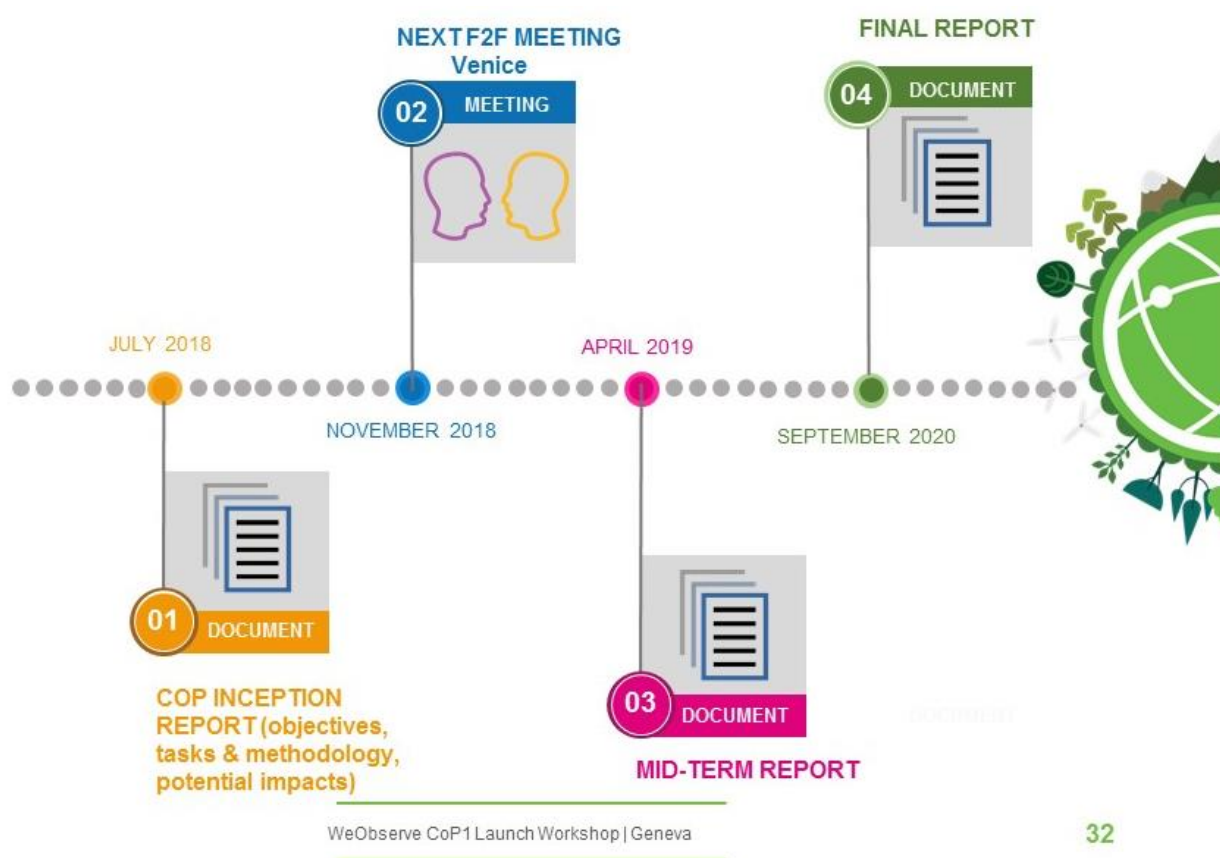
² Conditions refer to the setting for co-design activities, e.g. with specific geographical or socio-cultural aspects.

³ Versions refers to specific co-design characteristics, e.g. simple vs. more elaborate approaches

5.2 Overview of timeline

In principle, the WeObserve CoPs will continue to exist only as long as they deliver value for their members in terms of achieving the jointly set objectives. After the end of the project, the CoP management could be transferred to GEOSS in the form of GEO activities or to ECSA in the form of a sub-working group.

The general CoP1 timeline during 2018-2020 consists of the following, which includes this report as the first step:



6 Communication agenda

It is vital that CoP1 not only communicates effectively amongst its members but also outside of the group. Therefore, the communication strategy of CoP1 is based on the communication strategy of the WeObserve project, to ensure that the communication from the CoP is in harmony with the overall communication of the WeObserve project.

6.1 Internal communication

CoP1 already has an email list and subscribing to the email list is mandatory to be part of the group. In addition, progress of the discussions and minutes of meetings will be recorded and organized in a GDrive that will be provided and managed by WeObserve ensuring harmonization and preservation. Following CoP1-internal discussions, a task force of each CoP will draft a solution proposal in the form of best practice, a profile or a standard. The resulting documents will be presented to a broader audience, comments will be incorporated and the final solutions will be agreed.

6.2 Communication with the WeObserve Consortium

Activities of the CoP need to be communicated to the WeObserve consortium for two main reasons: (1) The WeObserve consortium needs to be aware of the activities of each CoP.

(2) The WeObserve consortium can assist in getting the message of the activities of the CoPs out to a wider audience.

The knowledge platform of the WeObserve project will have a dedicated space where CoP members can report on their activities to the other WeObserve partners. Regular updates, at least once a month, are expected.

6.3 External communication

In terms of communication to the wider public, the CoP1 results can be communicated and disseminated via demonstration, video, the WeObserve cookbook

Also, the WeObserve will be an important platform. Here the highlights of CoP1 activities (for example new releases or upcoming events) will be shared. These will also be communicated through the social media of the project, i.e. Twitter and Facebook.

7 Foundation members

The foundation members are those people who have been involved in CoP1 from the beginning by attending the launch workshop in Geneva on 6 June 2018 or by having signed up following the first call for registrations. Foundation members can either take the role of participant or observer. A list of the foundation members for CoP1 can be found in Table 1 below. In November 2018, all foundation members were contacted by means of a survey and were asked to indicate their agreement with the publication of their names and their respective organisation in the WeObserve CoP1 Inception Report. The name and affiliation of those members who indicated their agreement are mentioned in Table 1. In addition, in order to adequately reflect the overall composition of this CoP, all other members are referred to anonymously in Table 1.

TABLE 1: FOUNDATION MEMBERS OF CoP1

Last name	First name	Organisation	Role
Ajates Gonzalez	Raquel	University of Dundee	Observer
Anonymous member	Anonymous member	Mapping for Change	Participant
Anema	Kim	IHE Delft	Observer
Anonymous member	Anonymous member	Ibercivis	
Bartar	Pamela	ZSI - Centre for Social Innovation	
Bela	Györgyi	Budapest Citizen Observatory (BCO)	Participant
Anonymous member	Anonymous member	BLB	
Cerratto-Pargman	Tessy	Stockholm University	Participant
Anonymous member	Anonymous member	Earthwatch Europe	Participant
Anonymous member	Anonymous member	NDCConsult	Observer
Anonymous member	Anonymous member	CARR Communications	Participant
Coulson	Saskia	University of Dundee	Participant
Anonymous member	Anonymous member	BASC	
Anonymous member	Anonymous member	Mapping for Change	
Georgiadis	Pavlos	CulturePolis (GROW observatory)	
Anonymous member	Anonymous member	National Observatory of Athens	
Gervasini	Eugenio	EC – Joint Research Centre	Observer
Gold	Margaret	ECSA	
Golumbic	Yaela	Technion	Participant
Anonymous member	Anonymous member	IIASA	Participant

Last name	First name	Organisation	Role
Haklay	Muki	UCL	
Anonymous member	Anonymous member	CARR Communications	Participant
Joshi	Somya	Stockholm University	
Kragh	Gitte	Earthwatch	Observer
McLean	Stacey	Individual urban ecology practitioner	
Masó	Joan	CREAF	Observer
Oliveira	Marta	MCO Consult	
Anonymous member	Anonymous member	Cultivate	
Anonymous member	Anonymous member	Institut de Ciències del Mar	
Anonymous member	Anonymous member	Universität Heidelberg	
See	Linda	IIASA	Participant
Anonymous member	Anonymous member	US South Big Data Innovation Hub	
Spiteri	Anna	Integrated Resources Management CO Ltd.	
Anonymous member	Anonymous member	XTeam Software Solution	Observer
Anonymous member	Anonymous member	Université libre de Bruxelles	Participant
Anonymous member	Anonymous member	VITO	
Wandl-Vogt	Eveline	Austrian Academy of Sciences	
Wehn	Uta	IHE Delft	Chair CoP1
Fedi	Adriano	Acrotec Foundation	
Domain	Dahlia	IIASA	
Oliver	Jesse	Australian Citizen Science Association	Observer
Almomani	Abeer	IHE Delft	Observer
Per	Esra	Gazi University	
Cerratto-Pargman	Teresa	Stockholm University	Participant

8 Ways of working

8.1 Periodic activities

The CoP will meet regularly by teleconference (via ZOOM) and will take advantage of existing opportunities (e.g. COWM18 conference, OGC TC meetings, GEO symposia and ECSA assemblies) to meet in person for longer discussions. These meetings will be driven and facilitated by WeObserve but will be composed by a much broader audience in an open and transparent manner.

8.2 Timing of meetings

The planning of the next meetings is summarised in the table below.

Date	Type (online/F2F)	Where
13 July	Online	ZOOM
Early September	Online	ZOOM
12-14 September	F2F	EuroGEOSS Workshop, Geneva
October	Online	ZOOM
27-30 November 2018	F2F	COWM Conference, Venice

8.3 Linked initiatives

- ECSA Working Groups on Sharing Best Practice and Building Capacity; Policy, Strategy, Governance and Partnerships; Learning and Education in Citizen Science; Citizen Science and Open Science
- Citizen Science COST Action - CA15212: to promote creativity, scientific literacy, and innovation throughout Europe (<https://www.cs-eu.net/about/CA15212>) and specifically the following Working Groups: WG2 Develop synergies with education; WG3 Improve society-science-policy interface; WG4 Enhance the role of CS for civil society.
- COST Action 17122: Increasing understanding of alien species through citizen science (http://www.cost.eu/COST_Actions/ca/CA17122)
- OPENER Community of Practice on Public Engagement in Environmental Research (UK) (<https://research.reading.ac.uk/openupsci>)
- Citizen Science Global Partnership (CSGP) first call for participation (<https://www.wilsoncenter.org/article/concept-note-citizen-science-global-partnership>).
- Earth Observations and Citizen Science” Community Activity of the GEO Work Program (<http://earthobservations.org/activity.php?id=142>).
- Socio-economic benefits of Earth Observations” Community Activity of the GEO Work Program (<http://earthobservations.org/activity.php?id=142>).
- EuroGEOSS initiative (https://ec.europa.eu/info/research-and-innovation/knowledge-publications-tools-and-data/knowledge-centres-and-data-portals/eurogeoss_en).
- Joint Communications Booster (H2020 sister projects)
- WeObserve Roadshow of COs for environmental and disaster risk and emergency management
- MICS - Developing metrics and instruments to evaluate citizen science impacts on the environment and society (H2020 project, 2019-2021), led by Earthwatch.

9 Policies and procedures

9.1 Opting in

Following the recently introduced General Data Protection Regulation (GDPR), CoP1 participants will be asked to sign an informed consent form (or during their registration process), indicating the following items:

- CoP1 participants can stop their participation in the CoP at any time and can ask WeObserve to remove all the personal data it has stored related to them;
- CoP1 participants give explicit consent to be contacted by WeObserve and give permission to WeObserve to store their personal contact details;
- CoP1 participants indicate they are aware that WeObserve is collecting data on citizen observatories for a Cookbook, and information provided by the participants can be used for this output (information provided will be acknowledged, as desired).

9.2 Principles of Conduct

During the CoP1 launch workshop, the following principles of conduct were presented and agreed upon:

- Extend respect and courtesy to colleagues at all times
- Develop and test ideas and insights impartially
- Think internationally, devising insights and solutions that meet the needs of diverse cultural contexts and operational environments
- Individuals who attend the WeObserve CoP-facilitated meetings are prepared to contribute to the ongoing work of the CoP
- Adhere to the agreed rules that protect the IPR of the members and the privacy of their discussions (see section 9.3)
- Adhere to the consensus process for deciding CoP-internally what content will be made public and when (see section 9.3)

9.3 Voting for publicly released results

Principally, the CoP1 members agree to protect the IPR of its members and the privacy of their discussions. Also, they agree to adhere to a consensus process for deciding CoP1-internally what content will be made public and when, as follows:

- Once outputs of CoP1 are finalised and acknowledgements of CoP1 participants have been agreed, the chair will ask if there are any objections against making the results public. If there are not, they will be made public straight away. If there are objections, a voting process (online if necessary) will be used, for which a 2/3 majority will be sufficient to pass a given decision.

9.4 Including or deprecating activities

Similar to the process described above publicly released results, the inclusion or deprecation of activities will also be decided by a voting process. Any CoP member can propose activities to include or deprecate, after which a voting process (online if necessary) will be used. A 2/3 majority will be sufficient to pass a given decision.



An Ecosystem of Citizen Observatories for Environmental Monitoring

Disclaimer:

Content reflects only the authors' view and European Commission is not responsible for any use that may be made of the information it contains.