



Inclusive Science and European Democracies

Policy Brief Series  
Promoting Deliberative Participation in Europe  
**ENSURING LONG-TERM FUNCTIONING OF  
CITIZEN OBSERVATORIES**

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Democracies

## Innovation Targets

- ▀ Taking **Citizen Science** initiatives, in all their diversity, as a **Methodological Toolbox** to improve participation and deliberation in Democracy.
- ▀ Taking the **role of science-based knowledge** in public policy and democratic decision-making – central to knowledge societies – to improve **Participatory and Deliberative Processes** and to complement **Representative Democracy**.

## Consortium

<b>UNIVE</b>	Ca'Foscari University of Venice – Lead Partner	Italy
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<b>UNIPA</b>	University of Palermo	Italy
<b>UNITN</b>	University of Trento	Italy
<b>Observa</b>	Science and Society	Italy
<b>MNHM</b>	Museum National d'Histoire Naturelle Paris	France
<b>ENS</b>	L'École Normale Supérieure	France
<b>UNIWAR</b>	University of Warsaw	Poland
<b>NTNU</b>	Norwegian University of Science and Technology	Norway
<b>IRMiR</b>	Institute of Urban and Regional Development of Warsaw	Poland
<b>DBT</b>	Danish Board of Technology	Denmark
<b>UCD</b>	University College Dublin	Ireland
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<b>MEC</b>	Ministry of Education of Uruguay	Uruguay
<b>UNEXE</b>	University of Exeter	United Kingdom



## Ensuring Long-Term Functioning of Citizen Observatories

Citizen Observatories are community-based networks aimed at monitoring public issues and policy effectiveness by collecting and sharing information using mobile devices, wearable and static sensors, social media platforms or personal observation.

Citizen Observatories (COs) originated with citizens collecting environmental data in order to have an impact on decision-making, policy change and governance outcomes. COs can be set up to monitor city and urban issues, climate change, or natural resources. Still evolving as a concept, the CO aims to move beyond traditional citizen science practices and temporary collaborations with professional researchers. Specifically, it seeks to foster and enable community-led or bottom-up science-based initiatives.

Supporting CO work offers an opportunity to diversify and enhance inclusion in knowledge-based democratic initiatives in Europe while at the same time supporting citizen engagement and literacy with science.

## OUR POLICY RECOMMENDATIONS

1. Citizen observatories should explicitly **outline the role of the public** and actively facilitate pathways for local democratic input and policy development.
2. All citizen observatories should **establish** a well-documented policy outlining their **approach to open access management**. This policy could support designing and offering a structured data training program tailored for the public and citizen scientists.
3. Citizen observatories should **articulate all educational aspects of their mission** and devise comprehensive plans for their execution.
4. Gender mainstreaming strategies should be clearly **delineated**, detailing how **diversity, inclusivity and equal representation** will be ensured.
5. Anti-discriminatory rules should be **implemented** based on a consultation process with representatives of different minority groups, for example, by considering the **accessibility of existing tools, platforms and practices to differently-abled** participants.
6. Ethical guidelines for confidentiality, **research integrity, diversity, and inclusion** must be established and adhered to. Existing ethical standards may be adopted and elaborated upon as required.

## RESEARCH OVERVIEW

Societal engagement is of crucial importance to the research, innovation, and policy initiatives necessary to confront the myriad of challenges facing Europe and the wider world at this present time. A cross-cutting priority, such participation is essential to reducing the perceived, and occasionally real disconnect between society and government. The CO model of participation offers a template for fostering greater engagement and reducing the corroding effects of this disconnect. In this brief, we discuss how to best support and develop these initiatives.

## METHODS

Our research was pursued in three distinct phases. Phase one focused on an extensive literature review centering on COs. From an initial corpus of 195 publications, a total of 48 were retained for a comprehensive analysis.

In Phase 2, a questionnaire was designed to elicit the broad perceptions, understanding, and experiences of the citizen science community regarding the role of data. A total of 100 answers were collected. The gender breakdown was 53% female, 45% male with 2% not answering. The age profile was dominated by the 35-44 cohort (31%). Almost all respondents (95%) were from Europe, with 15 countries represented. Over 50% described themselves as active citizen scientists while other participants were dominated by those who classified themselves as managers or project leaders.

Phase 3 of this survey involved a short baseline survey focused on the general public (N=108). A good gender balance was observed - 52% female, 47% male with 1% preferring not to say. The age profile was dominated by the 25-34 group (38%). Participants represented 21 European countries.

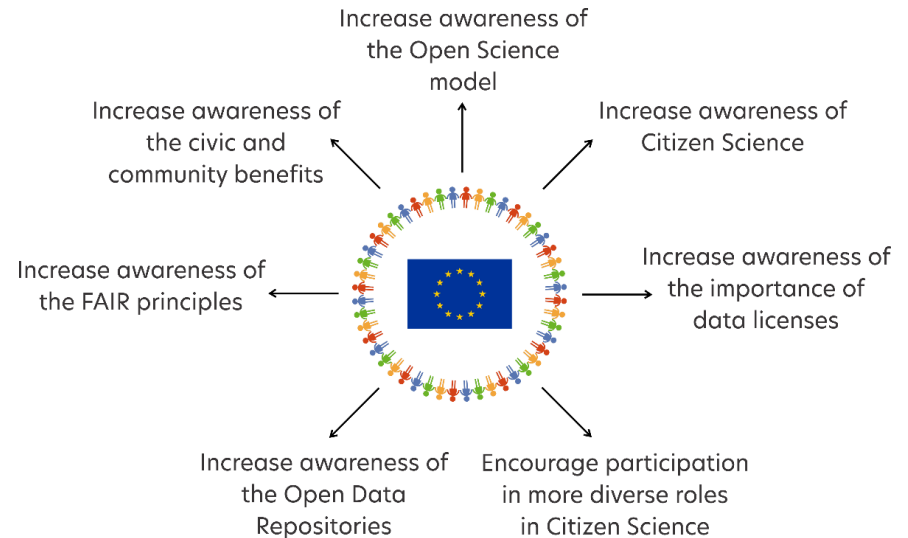
## RESULTS

Our study with members of the citizen science community reveals that the overall training received by participants, both formal and informal, is low. As an indicator, 85% of participants contributed to the data collection phase, however 20% of participants could not recall how informed consent was obtained and 43% of participants did not know what data licenses governed their data, if any. While 64% of participants were familiar with Open Data, only 54% were aware of Open Science.

Regarding data privacy, a clear majority (87%) of participants understood GDPR but only 37% had encountered the FAIR principles regarding data sharing. However, 66% of participants were familiar with open data repositories. As civic and community benefits appeared as a strong motivation for 49% of CO participants, it seems that education and training on how to handle data ethics and open data management would align and help realize the full potential and benefits of CO initiatives.

Our baseline study of the general public shows that the overall training received by citizens, both formal and informal, is even lower. Though 44% of participants were familiar with open data

repositories, 59% of participants were unfamiliar with Creative Commons or CC licenses. While 62% of participants were familiar with GDPR, only 8% were aware of the FAIR data principles. Importantly, over 50% of participants had not encountered many concepts core to our Inclusive Science and European Democracies (ISEED) project, for example, “citizen science”.



*Activities to promote Public Participation in Europe.*

## DISCUSSION

In addition to contributing to conventional science, COs seek to facilitate engagement with evidence-based policy definition and local governance, enabling a proactive approach and encouraging a sense of problem ownership, and even a sense of stewardship and agency, especially in the case of environmental issues. While many CO prototypes have been documented in the research literature, one fundamental difficulty emerging is enabling and ensuring their community-driven nature. The overall objective - to lower the entry barrier for a plurality and diversity of members of local communities - remains a challenge. To that end our recommendations emphasize the need for supporting COs in further training resources once it comes to both data management and ethics, and inclusion, representation, and diversity issues.

## RELEVANCE TO POLICY-MAKING

This policy brief is of primary interest to those in **national governments and municipalities** who seek novel approaches for encouraging and facilitating citizen input into any aspect of governance. It will also be of interest to NGOs and to researchers of various hues, especially those in the environmental space. Such NGOs frequently depend on the collaboration of the public in pursuit of their mission. Finally, this brief will interest **actors in the broad education sphere** who seek to demonstrate alternative methods of scientific and civic engagement, and confront an increasingly pervasive lack of trust in science.

We urge local authorities, members of parliament, the scientific community, as well as members of the European Commission interested in increasing citizen participation and science - based decision - making to develop a plan for securing the long-term and sustainable functioning of Citizen Observatories.

ISEED maps and explores how inclusive science can support European democracies.

For more information feel free to contact us at: [communication@iseedeurope.eu](mailto:communication@iseedeurope.eu)

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