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Report on the ECS participatory selection workshops II

*Exploring Impact Assessment in Citizen Science:
Insights from the ECS Co-Design Process*

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1. Introduction

This report documents the participatory workshop held on October 20, 2023, as part of the ongoing co-design process in the ECS project. This year marks a significant enhancement in our approach, with an increased number of participatory workshops, specifically targeting environments with active community engagement. The October workshop, a unique facet of the ECS Co-Design Process, was conducted in person during the "CCC: Connect. Collaborate. Create" event in Paris from October 19-21. This conference, a collaborative finale of the PRO-Ethics and COESO EU-funded projects, served as a vibrant nexus for an array of individuals connected to citizen science. The gathering encompassed researchers, practitioners, ethics experts, policymakers, and others, creating a fertile ground for co-design activities for the eu-citizen.science platform. This workshop was distinctively focused on tackling a prevalent challenge in citizen science platforms: devising methods to assess the impact of citizen science projects. The diverse backgrounds of participants provided a comprehensive perspective on this issue, enriching the discussion and potential solutions.

1.1 Purpose of the Document

The purpose of this document is to share a detailed overview of the process and outcomes of the session. It is intended to keep participants and other stakeholders informed about the decisions made, and the rationale behind those decisions. By sharing this information, we hope to maintain transparency and foster continued engagement from all stakeholders in the ongoing development of the eu-citizen.science platform.

1.2 Overview of the Co-Design Process

The co-design process in this second cycle remains consistent with the approach detailed in other reports. However, a key enhancement is the integration of the workshops within specific active environments, ensuring deeper engagement from relevant community members. This adaptation has allowed for more targeted and informed contributions, leveraging the existing familiarity and active involvement of participants with the **eu-citizen.science** platform. The process still encompasses iterative stages of ideation, development, and refinement, with a focus on collaborative input and knowledge sharing.

The process is divided into four annual cycles, each including all phases from the initial identification of needs to the final development of services or functionalities and their integration into the platform. This iterative approach allows for continuous learning and improvement in each subsequent cycle. The full process is described in Deliverable "D2.1 Plan for the community co-creation activities". A brief summary of the steps taken:

- Initial asynchronous **identification of needs through a survey** (Since April 2023).
- A round of **participatory selection workshops**, where users had the opportunity to contribute ideas of the functionalities to be developed.
- **Co-design of the selected functionalities**, in which the participants determine the specific characteristics of the services to be developed.
- **Final development and testing** of the co-designed services.

2. Methodology

The methodology for the October workshop required adaptability due to its unique in-person format, reduced time allocation, and shared workshop environment within the "CCC: Connect. Collaborate. Create" event. Despite this situation, our goal was to physically replicate the digital tools typically used in our sessions. This approach was designed to maintain the essence of our standard methodology while accommodating the specific constraints of the event setting. The following section will detail the adapted methodology we employed for this workshop.

2.1 Outline of the Participatory Selection Workshop

In a departure from our typical digital approach, this workshop leveraged a physical board to facilitate the idea-sharing process, simulating the collaborative environment fostered by the MIRO tool in our regular sessions. This tangible board was strategically divided into three distinct columns, each serving a specific purpose in the brainstorming process:

The first column, labelled "**Fields**", invited participants to propose various fields relevant to the impact assessment of citizen science projects. This exercise was not only a brainstorming activity but also a potential guide for modifying project creation forms on the platform to include impact-related fields. This column was crucial in understanding what aspects of citizen science projects our community deems significant in measuring success and impact.

The second column, "**Analysis**", focused on gathering ideas about the types of analyses participants found most pertinent for evaluating the impact of citizen science initiatives. The interactive nature of this column fostered a dynamic conversation, allowing ideas to flow back and forth between the "**Fields**" and "**Analysis**" columns. This bidirectional exchange ensured a holistic view of how different fields and analytical methods could intertwine to create a comprehensive impact assessment framework.

Finally, the "**Brainstorming**" column acted as a versatile space for any additional thoughts, suggestions, or creative ideas that did not align neatly with the other two categories. This inclusion ensured that the workshop captured every possible angle and suggestion, no matter how unconventional, thus embracing the diverse thinking and innovative spirit of the participants.

The physicality of the board, combined with the thoughtful categorization, played a pivotal role in structuring the workshop. It not only offered a clear visual representation of the community's collective thoughts but also stimulated rich, in-depth discussions among the attendees.

2.2 Participant Profiles

This workshop was attended by 12 participants (7 women and 5 men), each bringing a unique and valuable perspective to the discussions. The framework of the CCC event in which the workshop took place brought together different profiles. The group consisted of a dynamic mix of project managers, citizen science practitioners and experts from various fields, all united by their experience in citizen science. Their combined expertise was particularly pertinent to the workshop's focus on evaluating the impact of citizen science projects. The varied backgrounds of the participants led to enriching and fruitful conversations, contributing significantly to the depth and breadth of the ideas generated. The balanced representation of genders further enhanced the diversity of insights, ensuring a well-rounded and inclusive exchange of ideas.

3 Workshop Outcomes

This section presents a summary of the ideas and discussions from the workshop. Unique to this session was the absence of our usual idea prioritisation phase, due to the workshop's specific format and time constraints. Instead, we focused on generating a broad range of ideas and facilitating open-ended discussions. The outcomes detailed below reflect the rich and varied input from participants, offering insights into the diverse perspectives and approaches towards evaluating the impact of citizen science projects.

3.1 Summary of Ideas Generated

The workshop's "Fields" column saw suggestions such as measuring the number of engaged volunteers, assessing science outreach, evaluating the disciplines and topics covered, identifying the target audience, and the strategies for data collection. Participants emphasised engaging under-represented groups and measuring scientific and other outputs, including policy briefs and events. Key areas of impact, sustainability, and continuity were also highlighted, along with the importance of defining key performance indicators (KPIs) and collective impact assessment.

In the "Analysis" column, ideas centred around role diversity, accessibility of research data, conceptual mapping, cooperation metrics, and impact indicators.

The "Brainstorming" column raised questions about whether impact should be self-assessed or externally moderated, the role of policy reform in political action, the challenges of prioritising impact assessment, and methods to involve citizens more deeply in the eu-citizen.science platform.

As can be seen, the community prioritises a multifaceted approach to impact assessment in citizen science projects. There's a focus on both quantitative measures (like volunteer engagement and scientific outputs) and qualitative aspects (such as outreach and audience engagement). The community suggests a need for accessible and diverse roles in research, along with the creation of clear, cooperative metrics for impact assessment. The debate over self-assessment versus external moderation indicates a desire for authenticity balanced with credibility in impact evaluation. To integrate these solutions into the eu-citizen.science platform, it would be beneficial to develop tools that facilitate these diverse forms of impact assessment and encourage broader participation from the citizen science community. Some options could include:

- **Dynamic Impact Dashboard:** Create an interactive dashboard for each project where project managers can input key impact metrics like volunteer numbers, outreach activities, and diversity of disciplines.
- **Cooperative Project Impact Matrix:** Introduce a matrix tool that allows projects to input and display their cooperation metrics and impact indicators. This tool would enable projects to visually map and compare their impact, fostering cross-project learning and collaboration.
- **Citizen-Led Impact Reviews:** Implement a feature where citizen scientists can submit their own impact assessments of projects they are involved in.



4 Next Steps

This section provides an outline of the next steps in the development process, including a proposed timeline for the development of the selected services and how workshop participants can continue to be involved.

4.1 Development Timeline

Here is an outline of the projected timeline for the next stages of development:

- **January 2024:** There will be one more participatory selection workshop, open to general participation, which will be the last of this co-design cycle.
- **Late January 2024:** The development team will decide which services will ultimately be developed, based on their feasibility and potential to improve the user experience.
- **March 2024:** Further co-design workshops will be conducted to finalise the design and functionality of the services to be implemented. Participants will have the opportunity to provide additional feedback and contribute to the refinement of these services.
- **Late March 2024:** A testing phase will be opened to identify potential bugs or issues with the services before their final implementation. This will ensure that any technical problems are addressed and the services are optimised for user-friendliness and functionality.
- **End of April 2024:** An update of the eu-citizen.science platform will be released, featuring the newly developed services. An online event will be held to showcase the new features and to gather initial user reactions and feedback.

4.2 Participant Involvement in Future Stages

Participant involvement has been crucial to the co-design process thus far, and we highly value the ongoing participation of our community members in the platform's development.

As we progress into the next stages of development, there will be further opportunities for participants to contribute:

- **Co-Design Workshops:** Participants are invited to join further workshops to finalise the design of the new services. These workshops will provide a space for participants to provide their insights and feedback, further shaping the development of the platform.
- **Testing Phase:** Participants will be invited to take part in the testing phase. Their feedback will be invaluable in identifying and fixing potential issues before the services are publicly launched.
- **Final Presentation:** Participants are invited to join the online event, where the updated platform will be launched. Their feedback on the new services will be vital to assessing the success of the co-design process and guiding future improvements.



We believe that the continued engagement of the community will be instrumental in making the eu-citizen.science platform a success. All this information will be accessible through the platform and we look forward to our community's ongoing participation and contribution in this exciting journey.

5 Conclusion

This section provides a summary of the process, reflections on the co-design approach, and acknowledgement of contributions.

5.1 Reflection on the Co-Design Process

The ongoing co-design process has become a cornerstone of the eu-citizen.science platform's evolution. Reflecting on this cycle, it's evident that the success of the previous year has solidified our methodology. The workshops have not only continued to harness the collective intelligence of a diverse community but have also become a crucible of innovation and inclusivity.

We have observed a maturing in the community's collaboration, with stakeholders confidently navigating the process and contributing richer, more nuanced insights. The co-design approach remains a journey of shared learning, where each participant's input is valued and shapes the platform's future.

The affirmative response to our co-design framework is a clear indicator of its effectiveness. It has fostered a vibrant and supportive community that is passionate about citizen science. This cycle, we've seen an increase in engagement, a testament to the trust and commitment of our users.

As facilitators, our learning curve has been steep but rewarding. We are continually adapting, improving our strategies to meet the community's needs, and enhancing our facilitation techniques to capture the wealth of ideas presented.

The democratic prioritisation of services continues to be a highlight, ensuring every voice is heard and considered. While this approach comes with challenges, especially when consensus is elusive, it is a vital aspect of our commitment to a community-led development process.

In sum, the co-design process has not just been about developing a platform; it has been about nurturing a community. The enthusiasm and dedication of this community have been inspiring, reinforcing the value of a participatory approach to creating tools that serve such a dynamic and innovative field.

5.2 Acknowledgements

We would like to extend our sincere gratitude to all the participants of the participatory selection workshops. Their contributions, ideas, and active participation have been invaluable in shaping the future direction of the eu-citizen.science platform. Their time, dedication, and thoughtful input have not only helped in the identification of new services, but have enriched the overall understanding of the diverse needs and desires of the citizen science community.

A special thanks to the members of the co-design team in ECS. Their guidance and support ensured a smooth and productive co-design process.

This is truly a community effort, and we are excited to see how the platform will evolve with the continued involvement and input from its users. We look forward to the next stages of development and the launch of the

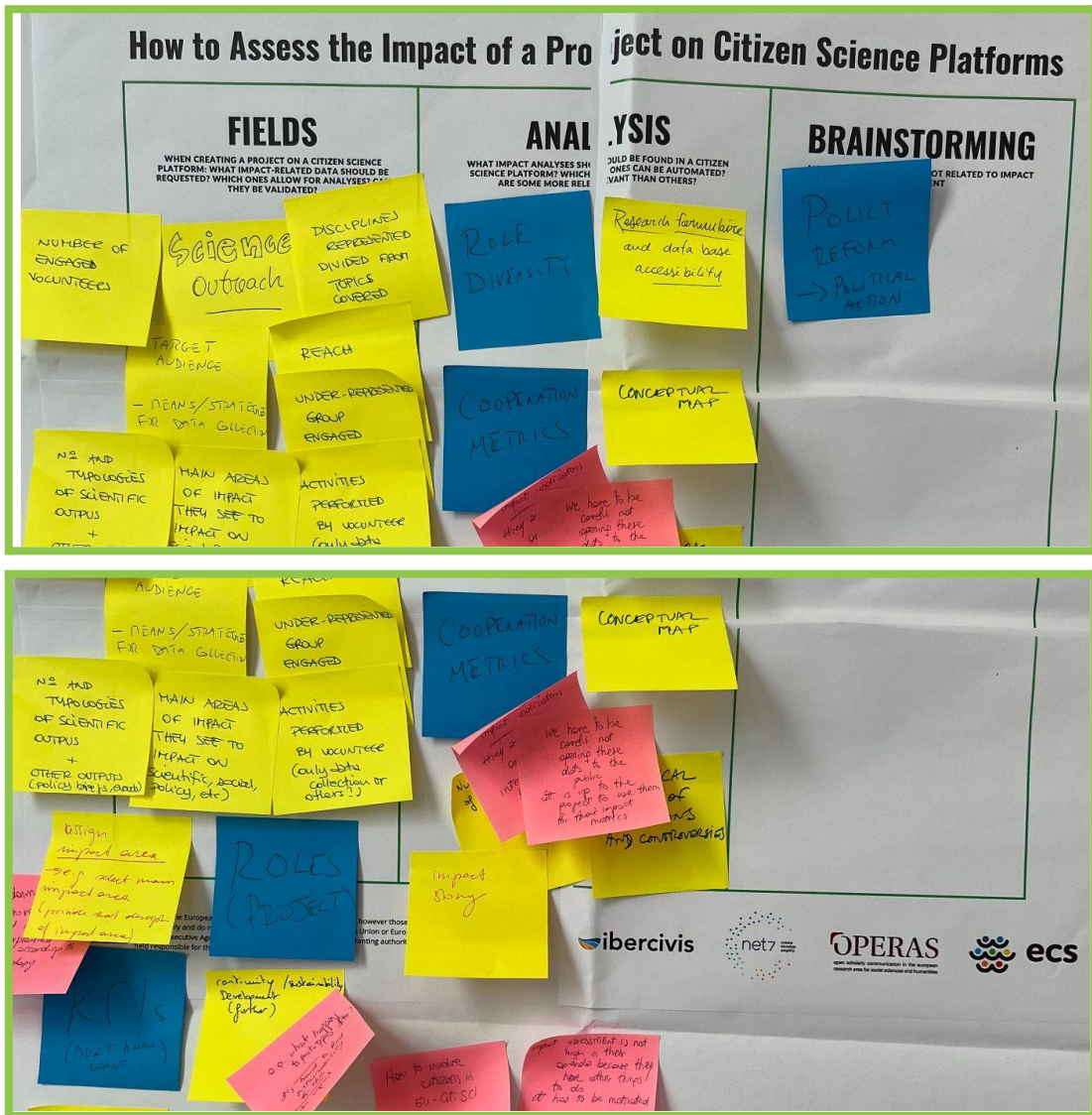
new services. Together, we are making eu-citizen.science a collaborative space that supports and enriches citizen science across Europe.

6 Appendices

This section includes additional detailed information related to the co-design process.

6.1 Screenshots from the Miro Board

These images capture the creative and collaborative process that took place during the co-design workshops, reflecting the active participation and diverse contributions of all participants. They also provide a visual record of the process and serve as a useful tool for recalling discussions, ideas, and decisions.



Board from the session