CITIZEN SCIENCE TOOLKIT FOR DELIBERATIVE PROCESSES IN CLIMATE ASSEMBLIES

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Motivation

Western democracies are facing a critical juncture where the intersection of political representation and the climate crisis demands innovative approaches to governance. The traditional mechanisms of political representation have struggled to effectively address the complexities of climate change and its far-reaching consequences. In this context, there is a pressing need for new forms of citizen participation in decision-making processes, underpinned by a strong social mandate and long-term vision, to steer policy towards sustainable solutions that transcend short election cycles.

In response to these challenges, we propose the use of Citizen Science in Climate Assemblies and Living Labs as sustainable and effective tools for stimulating deliberative democracy in climate change policymaking. Climate Assemblies bring together diverse groups of citizens to deliberate on complex issues related to climate change, providing a platform for informed discussions and consensus-building. Meanwhile, Living Labs serve as experimental spaces where innovative solutions can be tested and refined in real-world settings, ensuring that policies are grounded in practical realities.

Ebre Bioterritori Living Lab

In the heart of the "Delta de l'Ebre," we find an open innovation ecosystem that integrates research and innovation processes within real-life communities and settings. The **Ebre Bioterritori Living Lab** aims to enhance the redefinition and deployment of a more just territory towards sustainability. This is where we co-create and test citizen science tools for climate assemblies. Additionally, in **CLIMAS**, three more living labs participate: **Chios Living Lab** (Greece), **Vilnius Living Lab** (Lithuania), and **JRC Living Lab** (Italy), where tools are co-created, tested and validated.

Conceptual Contribution

Citizen science emerges as a powerful tool in Citizens Climate Assemblies. Overall, integrating citizen science into Citizens Climate Assemblies can enhance the effectiveness, inclusivity, and legitimacy of decision-making processes related to climate change, empowering citizens to actively contribute to shaping a more sustainable and resilient future for all. In this regard, the main question that we address in this work are:

- How can citizen science be integrated within the context of climate assemblies, and what are the challenges and opportunities associated with it?
- How can citizen science be utilized to measure and improve climate assemblies in terms of environmental literacy and accountability?

Methods

Co-creating a Citizen Science Toolkit for Climate Assemblies in the Ebre Bioterritori Living Lab.

Session I: Citizen Science. The main goals of the sessions are: (a) ignite participants' basic understanding of citizens science; (b) experiment with citizen science projects in-situ and (c) identify a citizen science project of interest to be familiarized through the co-creation process while gaining experiential knowledge around it.

Session II. Citizens Climate Assemblies. The main goals of the session are: (a) ignite participants' basic understanding of Climate Assemblies, its functioning and the process of deliberative democracy in these climate action contexts. and (b) co-create the potentialities of citizen science in the whole Climate Assemblies framework from a citizenship perspective.

Citizen Climate Assemblies and Citizen Science

Citizens' assemblies involve a group of people deliberating to create policy recommendations on a specific topic. Participants share their opinions based on experiences and knowledge gained during the assembly process, aiming to provide recommendations for political decision-making.

The actors

- **Assembly members** are citizens selected from a stratified random sample.
- **Experts** in topics such as climate science, policies, social sciences, and deliberative democracy, among others.
- **Stakeholders** representing various social interests related to the issue are included.
- **Organizers** include civil servants from the commissioning authority, or if it's a non-governmental organization, employees from that organization.

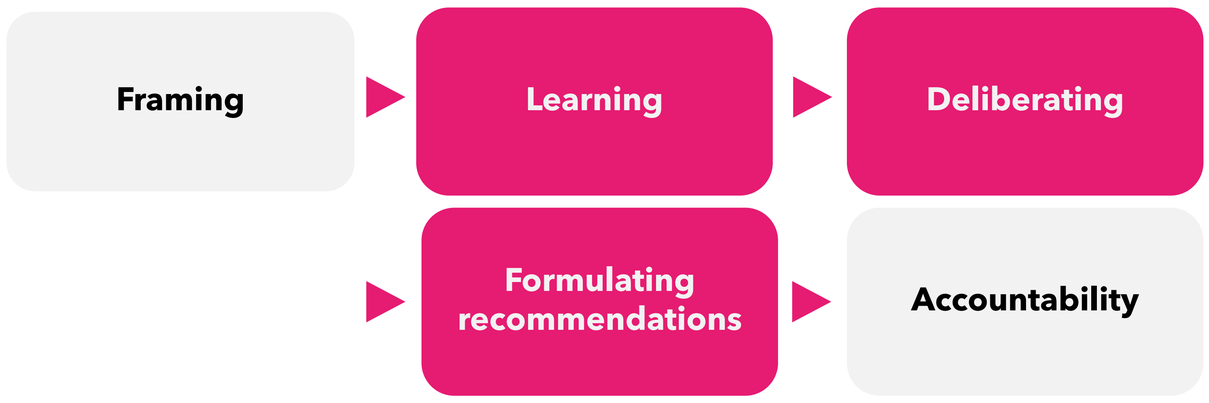
All these actors are organized into working groups. The **core group** typically comprising experts, stakeholders, and eventually citizens providing input on the overall design and impact of the assembly. The **knowledge group** is composed of experts on the topics covered by the assembly, who provide knowledge to the citizens.

Citizen Science in Citizen Climate Assemblies

- Citizen science can be employed by organizers and the core group to structure the assembly. Analysing citizen science projects and observatories in a region can yield evidence of environmental issues and offer insights into public concerns.
- During the learning phase, citizen science can be integrated as a tool to explore topics for discussion within the assembly. Citizen scientists can contribute as experts, sharing their experiential knowledge.
- In the deliberation phase, citizen science serves as a tool for providing evidence.
- In the accountability phase, citizen science plays a crucial role. It may involve initiating new projects to track the effectiveness of recommendations or utilizing existing projects for monitoring purposes. Moreover, establishing a citizen observatory based on citizen-generated data with assembly members could be feasible to monitor the impact of measures.

In **CLIMAS**, participate three climate assemblies: **Citizens' Assembly for Climate of Catalunya**, **Edermünde Climate Assembly** and **Riga district Climate Assembly** where tools are tested and validated.

The phases



The framing or formulation of the assembly involves defining the issues to be addressed and providing content to the assembly members and participating experts. Similarly, after the assembly is completed, there is a follow-up process for accountability. Throughout the assembly, the main phases consist of learning, deliberating, and formulating recommendations. Therefore, these are the main phases of the climate assembly where we could potentially introduce citizen science.

We are gathering information about citizen science projects that could potentially be utilized in climate assemblies. If you have a project, please access the form and provide the required information to be considered.

1. Vicens, J., Alvarez, N., Bertomeu, F., & Laniado, D. (2023). Co-creating a Citizen Science Toolkit for Climate Assemblies in Living Labs. In OpenLivingLab Days Conference 2023 (p. 134).
2. KNOCA (2024). Guidance Note on Governance of Climate Assemblies.

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