Tuesday late morning session Track C, Tuesday, Sep 23 2025, 11:30-13:00
Location: Seminar 5
Session: **Trust in Science**
Chair: Anni Sairio

OR-13
Extreme citizen science – challenges and opportunities of citizen engagement and inclusion
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Citizen science as an approach or methodology is not new, but re-invented, especially when this approach has been recently emphasized in EU projects. At its simplest, citizens are used solely as observers or data collectors, but taken further, citizens may also participate in data analysis and broader observation of their environment or activities. When citizen are more integrated from planning to implementation of research and development actions the aim of the research genuinely seeks contextual knowledge and move from the concept of acceptability, which still contains a kind of compulsion and conditionality to the concept of desirability, which does not rule out compromises but genuinely aims to take into account the needs, requirements, and wishes of the actors.
Some reflections and questions of these various research setups regarding extreme citizen science should be considered. Of course, it is critically important that roles and responsibilities are clearly defined and predetermined, regardless of the setup. Even though equal status might be the goal in co-research or extreme citizen science, it is challenging for this to be fully realized within a research context. Achieving equality, or more precisely, equity in a research context also requires equal resource allocation, a strong trust relationship (which typically does not happen immediately or easily), and genuine dialogue (i.e., open, direct, and empathetic interaction). Naturally, there are also studies where the researcher, the subject, and ethical pre-assessment must address various safety threats (large or small, physical or other types) or potential so-called incidental or unexpected findings that should involve protective measures for individuals.
Conducting research naturally involves the question of expertise, capability, and the production of knowledge and understanding. Bringing together contextual knowledge and theorizing is, of course, essential when aiming to create an in-depth depiction of the phenomenon and considering various short- and long-term effects both locally and globally. Researching with citizens or co-researching can increase citizens' trust in science, while on the other hand, the trust in the quality of research by the scientific community can be questioned when contributions from so-called amateur researchers are involved. Diversity, equity and inclusion are central considerations in extreme citizen science as in this kind of community-based research approaches biases may rise from the composition of the citizen scientists: who are you representing, what is your role in the community and how the power relationships in the community are considered e.g. in research with indigenous groups. The extreme citizen science approach requires more time, training (e.g. in research integrity and cultural sensitivity) and resources in general but could also bring better results for everyone. Thus, some universal practical guidelines should be provided for the better implementation of the approach.