iMERMAID

Implementing Citizen Science in Municipalities. Report on the iMermaid/ECS collaboration session

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Author: Romane Blassel (ECSA), Leo Mensel (ECSA)

Co-authors:

Alexandre Torres (Stickydot), Ellie Shtereva (F6S), Barbara Švagelj (Ankaran municipality), Neža Hervatič (Ankaran municipality), Srdjan Sabic (IPERS), Suzana Gotovac Atlagić (IPERS), Diana Escobar Vicent (Barcelona Citizen Science Office)

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RESPONSIBLE AUTHORS	Romane Blassel (ECSA), Leo Mensel (ECSA)
CO-AUTHORS	Alexandre Torres (Stickydot), Ellie Shtereva (F6S), Barbara Švagelj (Ankaran municipality), Danijel Stojkovic Kukulin (Ankaran municipality), Srdjan Sabic (IPERS), Suzana Gotovac Atlagić (IPERS), Diana Escobar Vicent (Barcelona Citizen Science Office)

EXECUTIVE SUMMARY

The iMERMAID/ECS collaboration session “Implementing Citizen Science in Municipalities” gathered two public authorities participating in iMERMAID's open calls (Banja Luka and Ankaran), Barcelona Citizen Science office, and citizen science practitioners to co-develop a roadmap for implementing citizen science in municipalities. The session highlighted key challenges faced by local authorities, mostly related to limited resources (funding, time, personnel), training gaps, difficult communication between stakeholders, as well as partial recognition of citizen-generated data. The discussion explored how public authorities can support citizen science initiatives by becoming facilitators between existing actors, and stressed the importance of leveraging existing resources, working closely with local CSOs already engaging citizens, schools and other public bodies. To support the sharing of resources and insights, ECSA suggests creating an ECSA Working Group dedicated to Citizen Science in Municipalities, and a CS crash-course for municipalities on the ECS Academy.

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ACRONYMS

iMERMAID	Innovative solutions for Mediterranean Ecosystem Remediation via Monitoring and decontamination from Chemical Pollution
ECS	European Citizen Science
ECSA	European Citizen Science Association
IPERS	Institute for Protection and Ecology of the Republic of Srpska
CS	Citizen Science
HEMRIS	Heavy Metals Removal in Slovene Riviera
STEAM	Science, Technology, Engineering, Arts and Mathematics
BRIDGEWAT	BRIDGing Communities for SustainablE WATers
OIS	Open Innovation in Science
JDS5	Joint Danube Survey 5
JRC	Joint Research Centre
AGM	Annual General Meeting

INTRODUCTION

The iMERMAID project is funded under the Horizon Europe programme and focuses on developing solutions for monitoring and remediating chemical pollution in the Mediterranean Sea. As part of the project, iMERMAID partners issued Open Calls for municipalities and local authorities to adopt the project's solutions - from heavy metal sensors to social engagement approaches. To support the uptake of social engagement solutions, ECSA organised an online event together with another Horizon Europe project, the European Citizen Science (ECS) project. Every two months, the ECS project organises the ECS collaboration sessions, where citizen science practitioners have the opportunity to present their work, engage in knowledge-sharing activities, and strengthen collaboration. The collaboration session "Implementing Citizen Science in Municipalities" took place online on April 7th, 2026, inviting citizen science practitioners, as well as municipalities and local authorities from the iMERMAID Open Calls to co-develop a roadmap in order to integrate citizen science in the municipalities' work. The session was supported by a presentation from Diana Escobar Vincent working at the Citizen Science Office of the Barcelona municipality, exploring the benefits and best-practices of integrating citizen science in the work of local authorities. During two breakout rooms, one for the municipality of Ankaran (Slovenia), and one for the national research institute of Srpska in Banja Luka (Bosnia Herzegovina), citizen science practitioners and Open Call representatives collaborated in identifying common issues, potential resources and next steps to implementing citizen science in their work.

BREAK-OUT ROOMS

Breakout Room #1: Municipality of Ankaran

Padlet: Implementing citizen science in Ankaran

Participants

Breakoutroom #1 focused on the Municipality of Ankaran in Slovenia and on how local authorities in general can engage the public in citizen science activities. Ankaran was represented by Barbara Svagelj and Danijel Stojkovic Kukulin.

About the Municipality of Ankaran

Ankaran is a young municipality of 3 281 inhabitants on the coast of Slovenia. Ankaran joined iMermaid Open Calls 2 through the **HEMRIS** (Heavy Metals Removal in Slovene Riviera) Project, which aims to monitor, assess, and mitigate heavy metal contamination in the coastal waters in the Gulf of Koper using iMERMAID electrochemical sensor for the detection of heavy metals and feasibility study of the 4D Scavenger technology. Besides validating the heavy metals monitoring system, assessing the feasibility of the 4D Scavenger for integration into the local water treatment system and analysing environmental data and impact to guide pollution reduction measures, Ankaran also conducted **stakeholder engagement and awareness activities**, focusing on citizens and pupils.

Roadmap exercise

When addressing the **main barriers to applying citizen science** in local authorities' work, the main issues identified were:

- Limits in human resources and finance, lacking permanent staff or volunteers to lead citizen science projects and ensure continuous citizen engagement
- Local authorities often lack awareness and training about citizen science and its benefits, they don't see the benefit of using citizen science, they lack trust or have low confidence in citizen science data

- Unpredictable results of citizen science initiatives could appear detrimental to municipalities

Additional issues were mentioned, including time-consuming bureaucratic processes for municipalities which contributes to citizen science not being perceived as a priority; the lack of continuous involvement of citizens which creates recurrent training needs. It was noted that legal frameworks probably differ from municipality or national context, which makes it difficult to come up with one-size-fits-all solutions.

The discussion then moved to the existing **best-practices, actors and networks** to enhance citizen science uptake from municipal authorities. Some **best practices** were identified:

- Having a clear rationale for data collection, linked to objectives or concerns of municipal objectives.
- Co-designing the project with municipal authority representatives.
- Being aware that "data quality" depends on context. "Low quality" data can be very informative, with the right project design.
- Offering a range of formats to accommodate a more diverse population (one time experiment/activity or weekly or monthly with regular support from the municipality/research institute)
- Holding frequent feedback meetings, showing (how) citizen science inputs are used
- Using EU funding initiatives focusing on citizen science as proof of concept for the municipality and then defining it within the strategic focus of the municipality.
- Distributing the engagement workload on several nominated people within the municipal team instead of putting all the work on a single person

The group recommended engaging a wide range of **actors** from the start of the citizen science initiative, including:

- existing community structures, local leaders
- other public institutions that apply principles of citizen science
- local schools and faculties

Barcelona municipality, building on its successful experience, recommended to open the scope of actors involved, as citizen science initiatives do not necessarily require a citizen science department from the start. Such initiatives should not only involve research and administration, they can be linked to culture or social affairs and leverage transversal offices. In Barcelona, participation in citizen science started bottom-up, with some projects contacting the municipality and a few people interested, supported by a pre-existing local culture of participation. Municipalities can act as facilitators between existing actors, they do not have to lead the citizen science initiatives themselves.

Lastly, networks (ECSA in particular, but also Scientix or Europeana) were also identified for their capacity to provide training and collaboration opportunities.

The discussion then moved to identify gaps. Scaling citizen science uptake in local authorities would require:

- More funding, policy support, and incentives from national government, to sustain projects and improve awareness of citizen science
- Structured training programs, increased awareness of citizen science and communication of citizen science projects and possible involvement in places where people go on their daily lives

- Aligning with citizens' local needs, developing a horizontal approach where authorities recognize and apply citizen science as a methodology or helpful tool for civil society involvement and follow up strategic action creation
- Better mapping municipality needs and connecting them to citizen science initiatives in the long term to have a sustained and clear framework for everyone to join and feel part of our projects

Next steps

- Today: look for citizen science projects in the region
- In three months: Organise a networking event for citizen science projects
- In six months: Have a follow-up call with ECS collaborators
- Planning for processes in the public institutions that could benefit from CS contributions to include such principles as soon as possible (example: monitoring of visitor attendance in the natural park)

More next steps for local authorities to accelerate citizen science adoption

- 0-1 month: host a meeting with colleagues to brainstorm how we can better structure citizen science initiatives in the long term and make the most out of it, presenting the successful cases from the iMERMAID/ECS session
- 0–6 months: local authorities should implement time-bound actions including awareness training.
- 6–18 months: pilot projects and STEAM hackathons
- 18–36 months: long-term policy integration supported by funding and European networks such as ECSA
- Establish sectoral or thematic working groups that bring together researchers, administration, and civil society
- Establish a citizen science network in the next meeting for each municipality

Breakout Room #2: Municipality of Banja Luka

Padlet: Implementing citizen science in Banja Luka

Participants

Breakout room #2 focused on the work of IPERS, based in Banja Luka (Bosnia Herzegovina). The session was joined by Dr. Suzana Gotovac Atlagić, associate professor at the University of Banja Luka and member of IPERS Executive and scientific board, together with Dr. Srdjan Sabic, scientific researcher at IPERS focusing on applied research, air quality monitoring, and chemical exposure assessment.

About IPERS

The Institute for Protection and Ecology of the Republic of Srpska (IPERS) is a national research institute based in Banja Luka, Bosnia Herzegovina. It collaborates and advises the municipality of Srpska, responsible for 200.000 inhabitants. IPERS focuses on environmental protection, sustainable development, as well as societal security. The Institute worked on the BRIDGEWAT project (BRIDGing Communities for SustainablE WATers) under the iMERMAID Open Calls 1. The project focused on bridging the gap between scientific advancements and public awareness relating to chemical water pollution in Bosnia and Herzegovina by organising digital campaigns, workshops and trainings to increase public awareness and capacity-building among stakeholders. At the end of the project, BRIDGEWAT further introduced policy recommendations surrounding industrial practices in water pollution in collaboration with local authorities.

Roadmap exercise

When addressing potential **barriers to applying citizen science in local authorities'** work, four main elements were discussed:

- Difficulty in achieving sustainability in short-term project contexts
- Lack of understanding between stakeholders
- Operational barriers (e.g conflicting schedules)
- Lack of trust in citizen science data

The discussion centered on the topic of sustainability. With projects being the main revenue for a lot of institutions, it can be tedious to start efforts from the ground up each time. This includes recruiting citizen science volunteers, co-designing research questions and project objectives, etc.

Another potential reason for municipalities' reluctance to work on citizen science projects is the lack of trust in citizen-generated data. This became evident when a researcher at a laboratory pointed out that even in cases of emergencies, municipalities would not accept data that had not been provided by an accredited laboratory, even if the laboratory itself requested citizens to test and provided training opportunities, especially for remote locations where testing needs to happen as quickly as possible.

Another barrier identified is lack of understanding between stakeholders. This referred to municipalities not understanding the extended benefit of citizen science to their work.

A final barrier was stressed concerning schedules between researchers, government workers, farmers, teachers, and many other stakeholders, which don't always align. Actors wishing to engage with municipalities, for instance, should restrain from contacting them during election campaigns.

Next, the focus shifted from identifying the problems to identifying potential solutions, or at least first contact points. Especially for stakeholder engagement, the group agreed on the importance of involving NGOs, CSOs and any other organisations already collaborating with citizens. Within the group, several existing resources were also offered to address the identified problems, including:

- A tailored engagement plan (Westcountry Rivers Trust)
- The Logic Model Template (OIS Center) to work towards project sustainability by developing a clear impact vision
- The ENFORCE project, which plans to develop a Plaza for citizens collecting data on environmental pollution
- Danube Survey (JDS5) providing best-practices for citizen science to monitor water quality
- The gems of water (JRC) providing best-practices for citizen engagement in monitor water quality

Next steps

In response to achieving more sustainable outcomes, the idea was brought forward for IPERS to work towards building and maintaining a community in order to nourish collaboration between public universities, research centers, city governments, and citizens. To work towards this long-term goal, the first next step identified was to have a look at the different resources presented during the session and find a place to store them for internal knowledge management.

CONCLUSION AND FOLLOW-UP

While the motivation to work on implementing citizen science is rather high among public authorities, they argued that the limited resources made it difficult to actually work on the implementation. Citizen science practitioners shared advice and pointed out resources for support. To further encourage municipalities in implementing citizen science, an ECSA WG on municipalities (if approved during the ECSA AGM) could provide networking and capacity building opportunities, brainstorm solutions, advertise funding schemes, etc. ECSA also suggests creating a course for public authorities in the ECS Academy.

SUMMARY TABLE

🚧 ***Main barriers***
• Lack of trust in CS data • Operational barriers - conflicting schedules, bureaucratic processes • Difficulty in achieving sustainable outcomes (hard to ensure continuous engagement, also considering the funding structures)
💡 ***Existing good practices and resources***
• Co-designing the project with municipal authority representatives. • Using EU funding for proof of concept • Opening the scope of actors involved beyond research and administration (e.g. culture), relying on existing community structures, local leaders, NGOs, CSOs already engaging citizens, or on other public institutions that apply principles of citizen science, engaging local schools and faculties, offering a range of formats to accommodate a more diverse population, holding frequent feedback meetings • Relying on networks for training and collaboration opportunities. More resources: • The Logic Model Template (OIS Center) to work towards project sustainability by developing a clear impact vision • Danube Survey (JDS5) providing best-practices for citizen science to monitor water quality • The gems of water (JRC) providing best-practices for citizen engagement in monitor water quality
🌊 ***Next steps***

• Step 1: familiarise yourself with CS resources and projects
• Step 2: Think of infrastructure to collect data and stakeholders
  o In three months: Organise networking event for citizen science projects
  o In six months: Follow-up call with ECS collaborators
  o In 12 months: Pilot projects
• Step 3: Municipalities work towards establishing a local Citizen Science Working Group
• Long-term vision: Create a CS community to be included in long-term policy integration supported by funding and European networks such as ECSA

🔜 ***Follow-ups after the session***
• Suggestion to start ECSA Working Group on CS and municipalities • Suggestion to create a course on Academy about municipal engagement

The Mediterranean Sea and its surrounding regions support a diverse variety of essential socioeconomic activities. It is one of the highly exploited water ways and the influence of anthropogenic activities on its marine habitats and ecosystems has grown significantly since the industrial revolution. Because of this, the Mediterranean Sea basin is very vulnerable to chemical contamination and build-up. To safeguard the Mediterranean Sea basin from contaminants for emerging concerns (CoEC), iMERMAID will integrate, coordinate, and synergize innovative preventive, monitoring, and remediation solutions. iMERMAID will build an evidence-based multidimensional framework that will guide policymaking and transform societal perceptions to reduce CoEC usage, emissions, and pollution. Furthermore, next generation sensor and remediation solutions will be developed within iMERMAID to monitor and remove prioritized chemicals from its source while reducing upstream pollution. iMERMAID builds an ideal interdisciplinary team by bringing together prominent SMEs, researchers, regulators, and innovation professionals who have been essential in improving the knowledge and awareness of CoEC. Beyond state-of-the-art techniques, iMERMAID will strive to strengthen regulations against CoEC, expand economic possibilities and competitiveness, improve the standard of living for EU residents, while preventing the accumulation of chemical pollution in the Mediterranean Sea basin. iMERMAID will empower the efforts to create a zero pollution, contaminant free waters by enabling the Chemical Strategy's goals to become a practical reality.

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