



PARTICIPATORY WATER SCIENCE IN QUEBEC

A LIVELY NETWORK!

**Summary of priority actions arising
from the participatory science forum
held in November 2022**

Criss-crossed by thousands of lakes, rivers, and its majestic river, Quebec is water-rich. Having developed around this invaluable resource, we depend on the many ecological services that these aquatic ecosystems render to us. Ensuring that this resource and freshwater ecosystems are conserved is therefore essential. Although traditional data sources remain essential to document and protect these ecosystems, the involvement of citizens and organizations is now essential.

Citizen science – an undeniable advantage!

The advantages of participatory science are numerous, socially, scientifically, spatially, temporally, and economically. Citizen science gives a spatial dimension to data collection: remote areas are accessible, data is abundant and the frequency of its collection is increased. Citizen science also offers a temporal dimension: monitorings are longer and more frequent and therefore can play the role of a precursor system for the evolution of environmental issues. The social dimension brings undeniable advantages: the education of young people and citizens, the development of eco-responsibility, a feeling of empowerment in the management of the environment, etc.

A FORUM ON PARTICIPATORY WATER SCIENCE

During two very productive days, some sixty participants from various backgrounds gathered in November 2022. Together, they defined a vision of what citizen science should be in Quebec. After discussing the strengths, weaknesses, and challenges of citizen science, these two days of discussions and exchanges concluded with the development of an action plan that will be implemented in the coming years.

VISION

“A **participatory** science network for water health, recognized for the **sustainable** engagement of communities, the diversity of **actors** and for the **sharing** of scientific and traditional knowledge.”



Towards an action plan!

INCLUSIVE VISION

Ensure that all players agree on a direction, and a common goal to achieve before taking specific actions to resolve other issues.

- Structure the organization
- Ensure two-way communication between everyone
- Ensure adequate learning and training for all members

ENGAGEMENT

Ensure a lasting commitment from citizens, young people, municipalities, and organizations.

- Identify and get to know the actors
- Develop strategies and means of engagement
- Support the continuity of efforts and their recognition.

SUSTAINABILITY

How to perpetuate this group of participatory science actors both from a financial and human resources standpoint and in terms of the commitment of citizens, young people, municipalities, and organizations.

- Develop and implement a funding mechanism to ensure the sustainability of citizen science projects and initiatives
- Valorize citizen science and its results
- Invest in scientific culture among young people and the rest of the population

VALIDATION AND CREDIBILITY OF DATA

Have the practice of citizen science recognized and have the data acquired by this group of actors accepted.

- Consolidate citizen science with scientific rigor
- Have a relationship of equals with partners (governments, experts, community, academics)
- Ensure the credibility of citizen science data
- Highlight the knowledge drawn from citizen science data
- Contribute to data access procedures

KNOWLEDGE SHARING AND KNOWLEDGE INVENTORY

Put in place solutions for data inventory and knowledge sharing, so that all this monitoring and data collection work is used for decision-making and, ultimately, for the protection and conservation of aquatic ecosystems.

- Have an inventory of all the knowledge acquired by the participants
- Make accessible and facilitate knowledge transfer and understanding within communities

Implementation and monitoring

Quebec and Canada are facing major climate challenges. A sustainable future requires that governments can rely on scientific and citizen organizations that have built relationships of trust with communities and are committed to protecting their environment. These organizations are investing in community activities so as to maintain an effective long-term monitoring network that both possess and delivers evidence for decision-making. The implementation of the actions proposed in this plan will be done through close collaboration and involvement of all stakeholders, ensuring that citizen science is recognized as an essential element in the management and protection of freshwater aquatic ecosystems.

FOR MORE INFORMATION :

<https://www.g3e-ewag.ca/participatory-water-science/>

[Full report of the 1st Forum on participatory science in Quebec](#)

[Action plan resulting from the participatory science forum](#)

