Action plan for the implementation and promotion of participatory water science in Quebec (2023-2028)

OBJECTIVES	MEANS / ACTIONS TO BE IMPLEMENTED	TIMETABLE			MANAGER/ WHO IS INVOLVED	SUCCESS INDICATORS / RESULTS
		SHORT TERM 1 YEAR	MEDIUM TERM 1-3 YEARS	LONG TERM 3-5 YEARS		
ORIENTATION 1 - HAVE AN INCLUSIVE VISION						
Structure the organization	Set values	x				Developed common vision
	Promote a shared vision around water	x				Organizational structure implemented
	Define an organizational structure	x				
	Create a database of current and potential actors (representativeness by sector, organizations, etc.)	x				Shared list and database of potential actors and needs
	Create a geo-located map of said actors	x				Map of current and potential actors # of memberships (individuals and organizations)
Ensure two-way communication between all	Collaborate with existing networks		x			Set up platforms, websites, and discussion forums
	Recruit new members and/or actors		x			# of new actors
	Listen and respond to individual and organizational needs		x			# of workshops, meetings, consultation activities, and documents produced..
Ensure adequate learning and training for all members	Establish webinars for members of the network (workshops, toolboxes) on different concepts according to the needs expressed		x			# of webinar series for network members
	OCAP Trainings		x			# of training sessions given
	Forum		x			# of forums carried out

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ORIENTATION 2 - COMMITMENT						
Identify and get to know the actors	Analyze the needs of current and potential actors	x				Needs analysis carried out # meetings held # of consultations conducted Developed action plan
	Organize consultation tables, online surveys, various communications to reach stakeholders and properly target the efforts to be invested.		x			
	Make an action work plan in collaboration with the actors		x			
Develop strategies and means of engagement	Plan for varying levels of engagement		x			# of recruiting tools developed Framework developed # of new commitments Network stability % of actors who continue their commitment Duration of the commitment
	Define the rules of the game for the commitment (nature, duration, etc.)		x			
	Develop a concerted reference framework			x		
Support the continuity of efforts and the recognition of these actors	Develop a retention strategy			x		Annual impact report # recognition events/activities Project team in place # of valuation tools developed
	Pool the results of all the programs in order to establish an overall picture and derive standard indicators			x		
	Plan recognition activities			x		

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ORIENTATION 3 - SUSTAINABILITY (FUNDING, HR, COMMITMENT)						
Develop and implement a funding mechanism to ensure the sustainability of citizen science projects and initiatives	Set up a strategic committee to propose a new medium- and long-term financing mechanism	x				A trust is set up # of new financing mechanisms for all network actors
	Develop a methodology to quantify the value of citizen science investment (see for a research project)		x			Tool for evaluating the value of a participatory science initiative developed Inventory of Data on the Value of citizen science in Quebec
	Foster partnerships and rely on collaboration		x			
	Promote the benefits and results of citizen science		x			
Valorize citizen science and its results	Set up tools for promoting and communicating with citizens		x			# of communication tools developed Brand image developed # of uses of brand image
	Develop communication tools to popularize, adapt and sort data from citizen science			x		
	Create a brand image (label, logo) to support a sense of belonging	x		x		
Invest in scientific culture among young people and the general public	Promote the deployment of citizen science in schools (decision-makers and workers of tomorrow)		x			# of young people involved # of educational institutions involved % increase in interest in science among young people # of citizens involved
	Encourage activities involving citizens in one or the other of the stages		x			

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ORIENTATION 4 - VALIDATION AND CREDIBILITY OF DATA						
Establish citizen science in scientific rigor	Form a scientific committee		x			Scientific committee established
	List the existing protocols and standards (possible research project)		x			# of standardized, recognized, and simplified protocols (accessible to the public, by video, etc.)
	Prioritize the protocols to be produced, popularized, and implemented		x			# of scientific committee meetings or participation rate
	Standardize the collection of data and the aggregation of this data		x			# of protocols that comply with international protocols
	Create a process for pooling and retrieving data		x			# of citizen data generated
Have an equal relationship with partners (governments, experts, community, academics)	Have a government representative sit on the scientific committee		x			# of government representatives and citizens
	Have citizens and partners within the scientific committee					# of committees on which stakeholders sit
	Sit on other scientific or advisory committees					
Ensure the credibility of citizen science data	Create training or adapt existing training		x			# of training sessions given
	Provide training to citizens and provide them with adequate tools			x		# of participants in training
	Create a metadata template by involving the government and the developers of similar systems (eg Datastream, etc.)			x		Metadata template developed All metadata is completed
Highlight insights from citizen science data	Map the uses of citizen data to show they are being used			x		# of actual uses resulting from citizen-gathered data
	Create a protocol for sharing data, best practices and feedback among all partners			x		Protocol developed
	Participate in the Canadian Open Data Society and other similar events or groups			x		# of participations in scientific data sharing conferences or committees
Contribute to data access procedures	Develop the culture of open data (collect)	x	x (colliger)			# of data collected
	Collect everything that is done in terms of open data (collect)	x	x (colliger)			# of meetings with the Canadian Open Data Society

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ORIENTATION 5 - KNOWLEDGE SHARING AND KNOWLEDGE INVENTORY						
Have an inventory of all the knowledge acquired by the actors	Inventory of resources: data, organizations, sources of transferable knowledge (web), communicators, etc.		x			# of tools and inventories Database # of new projects addressing missing needs # of data and initiatives promoted
	Join forces with data managers		x			
Make accessible and facilitate knowledge transfer and understanding in communities	Adequately train actors on data transfer and communication tools		x			# of training sessions given # of training participants # of platforms adapted # tools developed and used to demonstrate the integration of citizen science into decision-making Validation seal in place
	Propose adaptations to existing platforms to effectively reach the various target audiences and users		x			
	Popularize the information according to the different actors it targets		x			
	Distribute and share existing platforms			x		
	Categorize the data by specifying its level of complexity			x		