



EXPERIMENT WATERSECURE



Context and challenges

With the increase in extreme weather phenomena such as flooding and heavy rainfall, water management and bathing water quality are becoming major concerns for local authorities. In France, flooding is the most costly risk, affecting almost 18 million inhabitants and causing material damage of over one billion euros. Faced with these challenges, and in response to the PCAET's focus on the mobilization of stakeholders, innovation and adaptation to climate change, which will be voted on in 2022, Paris Est Marne & Bois is setting up an experiment with the start-up Keyros, labeled Greentech Innovation since 2023 and winner of the SMCL 2022 and POLD 2023 innovation awards, and the company PROLOG INGENIERIE. The WATER SECURE project, with its swimming and flooding components, focuses on the one hand on understanding the quality of bathing water, and on the other on anticipating flooding in the vast majority of towns in our region along the Marne.

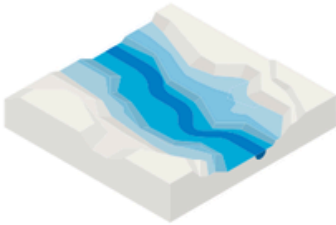
1 Tool for 2 Purposes

Keyros, which specializes in crisis temporality management, has designed "PROJECTIONS", an intelligent cartographic assistant which, in real time, indicates the time available to act during crises, based on flood forecast bulletins which could increase by 40% due to climate change. In response to PEMB's needs, Keyros has developed a new offer. Its PROJECTIONS tool now offers precise mapping of water quality at bathing sites. At the same time, Prolog Ingénierie, an expert in wastewater network modeling in the SIAAP zone, is collaborating with the Syndicat Marne Vive to improve knowledge of bathing quality in the Marne. WATER SECURE SWIM implements advanced digital technologies for sustainable development, making it possible to manage the opening of bathing sites in complete safety, anticipate closures after rainfall, inform the public via a dedicated application and contribute to the management of sewerage networks while reducing pollution discharges.



How does it work?

1 Visualizes the hazard



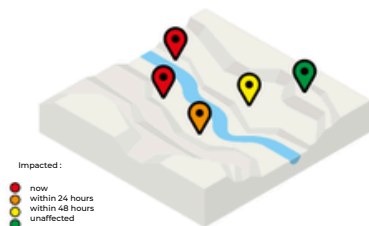
2 Locating and filling in your issues



3 Integrate à la carte forecasts by automatically recording bulletins in PROJECTIONS



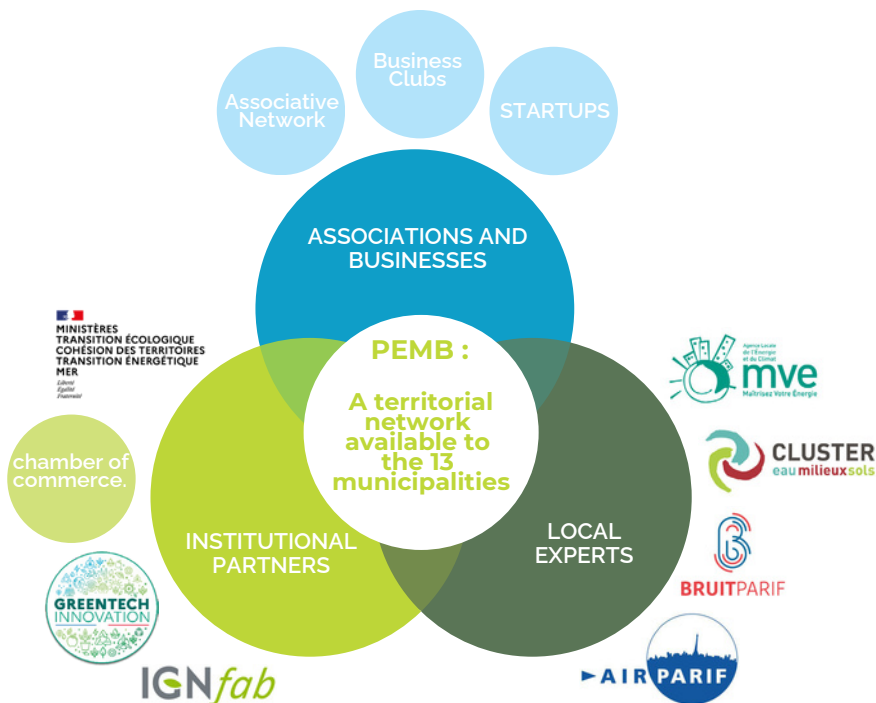
4 Anticipate and prioritize your actions by visualizing current and future impacts in real time



Outlook and Future Impacts

WATER SECURE represents a significant advance in water management and flood control. Using a collaborative approach and advanced technological tools, the project aims to optimize wastewater networks and proactively inform the public. By bringing stakeholders together in crisis workshops, a collective intelligence is developed to strengthen operational action and resilience in the face of climatic events. PEMB wants to be ready to play an essential role in anticipating and managing crises linked to flooding and bathing, and will offer its population the possibility of bathing in complete safety by summer 2025 for 2 out of 13 towns.

A partnership ecosystem: expertise at the service of cities in the region



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