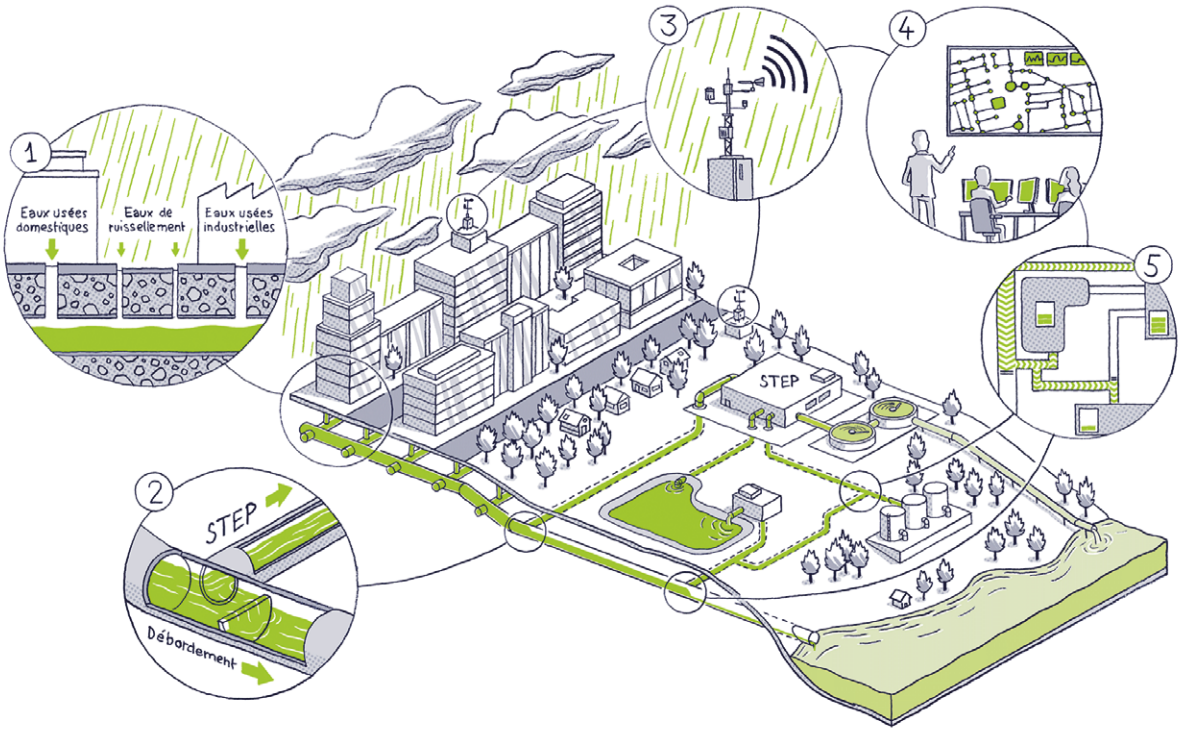
vivapolis
La créativité française pour la ville



INFLUX

PREDICTIVE AND DYNAMIC MANAGEMENT OF SEWAGE SYSTEMS

Bordeaux Métropole faced strong flood risks. In 2012, it called upon SUEZ to deploy INFLUX, a predictive and dynamic tool for the management of sewage systems and rain water, for a better preservation of the natural environment.

KEY FIGURES

- **Forecasts over 6 hours in wet weather**
- **INFLUX takes into account 4,000 parameters updated 24h/24 all week round**
- **15 to 30% possible reduction in spills**

INNOVATIONS

In real time, INFLUX provides:

- An OVERALL VIEW of the operation of the entire sewage system based on validated metrological and meteorological data
- DEVELOPING TRENDS in the sewage system for the next 24 hours in dry weather, and six hours in wet weather
- OPTIMUM MANAGEMENT STRATEGY applied automatically or manually. The aim of the strategy is to optimize the volumes stored in the water retention works and in the system itself, to increase the volume of wastewater to be treated in order to reduce outfalls into the natural environment while limiting flood risk.

STAKEHOLDERS

- Bordeaux Métropole was heavily impacted by floods.
- SUEZ (Lyonnaise des Eaux and Ondeo Systems, ex-SUEZ ENVIRONNEMENT subsidiaries) deployed the solution.
- The international research center on water and environment (CIRSEE) developed INFLUX with the Lyonnaise des Eaux research center in Bordeaux (LyRE).

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IMPLEMENTATION

▶ Bordeaux Métropole chose the technology RAMSES developed by Lyonnaise des Eaux, a subsidiary of SUEZ ENVIRONNEMENT, at the beginning of the 1990s. Since then, the remote control tool has evolved. It became MAGES in 2007 and INFLUX, a dynamic tool for rain water management, in 2012.

▶ INFLUX was developed by the International research center on water and environment (CIRSEE), with the Lyonnaise des Eaux research center in Bordeaux (LyRE).

The BENEFITS of INFLUX:

→ **OFFER overall and transparent management;**

→ **OPTIMIZE the use of existing sewage system and avoid new investments;**

→ **PRESERVE the natural environment and the standard of living of city dwellers.**

RESULTS

/// Thanks to the RAMSES INFLUX technology, Bordeaux did not experience any major floods since the 1990s. In the course of the past few years, the technology minimized the impacts of 120 floods. Each year, 15 to 20 alerts are issued for three violent storms on average.

/// By reducing overflow amounts, INFLUX controls their impact on the natural environment. A storm can pollute 10 to 50 times more than a wastewater treatment plant.

/// INFLUX was also deployed in Paris, for the SIAAP (in charge of wastewater treatment in the Parisian metropolis).

FINANCIAL DIMENSION OF THE OPERATION

/// INFLUX aims at optimizing treatment capacities of Bordeaux's water treatment plants and the investments made in flow management infrastructures.

CONCERNED AREA

→ City center water collection area

→ 96,970 m³ storage volume

→ 300,000 concerned inhabitants

→ 7,700 ha

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