ENIGMAREACH DELIVERS RAPID RESULTS TO PARIS LEAKAGE TEAMS

ENIGMAREACH



BACKGROUND

The public utilities of the Territorial Public Establishment Grand-Orly Seine Bièvre (EPT GOSB) in Île-de-France have become the first in the country to benefit from an all-in-one leakage reduction toolkit from technology company Ovarro.

THE CHALLENGE

The EPT GOSB is the largest territory in the Greater Paris metropolitan area, comprising 24 towns and cities with a combined population of around 720,000.

In 2024, EPT GOSB created two public drinking water utilities to manage water distribution across 13 municipalities within its territory - Eau Seine & Bièvre and Régie des Eaux de la Seine et de l'Orge (RESO). Although administratively distinct, these two entities pool their material and human resources. Aware of the importance of preserving water resources, the utilities have established a specialised team dedicated to leak detection on the network and the connections they operate.

Ovarro's French partner, FDS Pro, was the first supplier in France to acquire the new all-in-one automated correlating kit, EnigmaREACH. FDS Pro provided this kit to Eau Seine & Bièvre – RESO, whose teams use it to target, municipality by municipality, the urban areas with the highest leakage.

These zones are typically very dense, encompassing large residential districts as well as busy commercial, industrial and tertiary centres. Noisy environments, hard-to-access pipeline networks, high night-time consumption and limited surface parking have all posed challenges that made conventional leak detection methods particularly complex in the region.

THE TECHNOLOGY

EnigmaREACH is a lift-and-shift, automated correlating kit, comprising 32 or 64 acoustic leak loggers, a tablet, a single app to guide technicians through logger deployment, retrieval and follow-up, and access to automated data analytics platform, Atrium.

The end-to-end process begins when the logger deployment tool within the app identifies the best locations in the district metered area (DMA) for the devices to be installed. Out in the field, leakage technicians then install the loggers and retrieve them the following day.

Overnight sound files are uploaded to Atrium, which automatically completes correlations and generates points-of-interest (Pols) for users to view when they log into the system. The Pols are then assigned directly to technicians, via the app on their smart phones or tablets, to follow-up with high confidence a leak will be found.







Eau Seine & Bièvre RESO purchased one 32-logger kit in October 2024. During an initial training day, a team from Ovarro and two technicians from Grand-Orly Seine Bievre deployed the loggers in Arcueil covering an area of 8km.

On the first deployment, the system was able to cover up to 8km of network in a single correlation shot and identified three leaks simultaneously through 6o-second sounds samples.

After the first four weeks of use, during which time the loggers were moved across multiple locations, 12 Pols were raised and 10 leaks found, including long-running small leaks which had gone undetected, and leaking valves.

Since October, Eau Seine & Bièvre - RESO has deployed EnigmaREACH in other locations in the South of Paris, such as Orly, Savigny sur Orgeor Cachan. The system has continued to perform well, finding approximately four to six leaks per week.

Additionally, having a managed system that completes upfront data analysis and automatically identifies Pols on behalf of end-users, addresses recruitment challenges and supports less experienced teams in achieving strong results



We are pleased to have trained the end-user, Seine & Bièvre - RESO, on the use of our new EnigmaREACH multi-point correlator

"Whether you're dealing with dense urban networks or large distances across suburban and rural areas, EnigmaREACH is proving its capability to quickly pinpoint leaks with exceptional accuracy.

"The technicians working with the kit have told us they are impressed by the system's sensitivity.

With its three 6o-second recordings and 24-bit audio files, it enables the detection of small leaks on connections pipes that are particularly difficult to locate using conventional acoustic loggers.

"This method of leak detection was new to some members of the teams in Paris, but they were able to achieve positive results in a short period of time. We are now in discussions with other resellers across France, who have seen the benefits of this innovative approach to leakage detection."

Ali Katraoui, Ovarro manager - France

As a company that supports development of innovation and cutting-edge technologies, we were pleased to be the first adopter of EnigmaREACH to help our customers preserve water across Eau Seine & Bièvre et RESO utilities.

"The system has been deployed in high-density, urban areas where historically leak detection has been difficult. EnigmaREACH is addressing many of these issues and is proving to be particularly effective at finding leaks in small leaks that may have gone undetected. We plan to continue to offer the kit to our customers long-term, as part of our overall leakage detection toolkit."

Benoît Denis – marketing director, FDS Pro