

Epernay Agglo Champagne:

A smart metering programme to improve customer service and network performance

120 Million Litres Saved and Optimised Water Management

€300 000

IN REFUNDS AVOIDED IN
2025

120 M

LITRES OF WATER SAVED
THROUGH LEAK DETECTION

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EPERNAY
AGGLO CHAMPAGNE

Smart metering allows us to both improve the service we provide to our customers, better control consumption, and preserve water resources. It is a key tool for combining operational performance with sustainability.

Nicolas Couesnon, Directeur de la régie de l'eau de l'agglomération d'Epernay

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Context & Operational Challenge

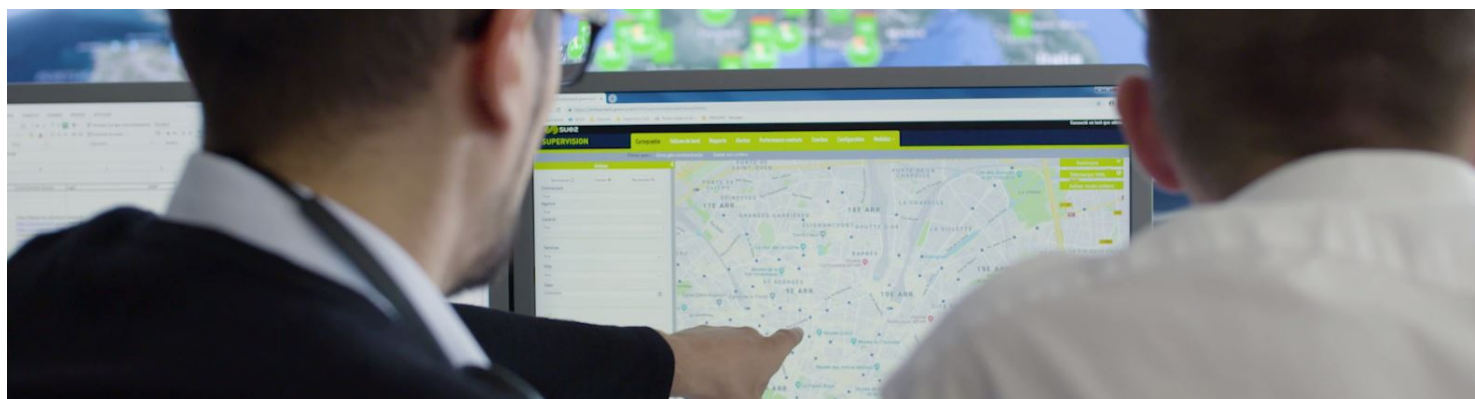
The Epernay Agglo Champagne, which serves 47,000 residents across a predominantly rural and wine-producing region, historically operated its water services under two distinct management models: a delegated public service in the north, supported by an aging remote meter-reading system, and a publicly managed utility in the south without any remote reading capabilities.

In 2022, the authority decided to unify operations under a single public management model and to modernise its service. Several key challenges emerged: replacing an outdated technology, harmonising service quality across the entire territory, and improving billing accuracy, particularly in rural areas where manual meter reading was difficult.

Beyond these operational objectives, the authority sought to improve control over water consumption, accelerate leak detection, and reduce the need for billing adjustments. This transformation was also driven by a broader ambition to increase user awareness of water's value and encourage more sustainable consumption practices.



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A Digital Solution to Address the Challenge

To meet these challenges, the agglomeration implemented a comprehensive smart metering solution across the entire territory. Rather than relying on the existing infrastructure, which was considered inefficient and outdated, the authority chose to start from scratch and deploy a more reliable, scalable, and future-proof solution.

The project was structured around a 15-year contract aligned with the lifespan of the meters, including full meter replacement and the deployment of a new communication network. The ON'connect solution, based on the Wize communication protocol, was chosen for its high performance in terms of reading rates and data reliability.

Unlike radio technologies such as LoRa that may rely on repeater infrastructure to extend coverage, the Wize architecture operates without repeaters, simplifying deployment and minimising infrastructure constraints. This enables faster network implementation while delivering reliable coverage across rural areas and complex operating environments.

In parallel, digital tools were implemented to fully leverage the collected data. These tools enable automated leak detection with thresholds adapted to real-life conditions, as well as a multi-channel alert system including SMS, email, letters, and phone follow-ups.

A dedicated customer portal was also introduced, giving users access to their daily consumption data and empowering them to better understand and manage their water usage.

How the Solution Works

The solution relies on a fully integrated digital architecture combining IoT infrastructure, secure data transmission, and advanced analytics.

Data Collection & Transmission

Smart meters automatically capture consumption data and transmit it via a dedicated radio network using the **Wize protocol (169 MHz)**, particularly suited for long-range communication and underground environments.



Data is transmitted through concentrators at configurable frequencies (up to several times per day), ensuring **near real-time visibility of consumption patterns** while remaining compliant with data protection regulations.

Data Processing & Analytics

Collected data is then:

- secured and stored
- enriched and processed
- analysed using SUEZ algorithms.

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The system handles more than 600 million data points per day, transforming raw meter readings into structured and actionable insights.

Operational Monitoring & Alerts

Through supervision platforms and dashboards, operators gain access to:

- real-time consumption monitoring
- automated alerts for abnormal usage or leaks
- historical and comparable analysis.

This allows anomalies to be detected early, both at the customer level and throughout the network.

Decision Support

By integrating smart metering with Aquadvanced® water networks, it is possible to correlate between water consumption data and distributed network volumes. This provides a **comprehensive view of water balance**, allowing the operator to:

- identify hidden leaks
- prioritise interventions
- optimise network performance.

Additionally, two-way communication capabilities allow for remote diagnostics and system updates, ensuring long-term operational reliability.

Operational Benefits & Results

The deployment of smart metering has delivered significant benefits for both the authority and its users. From an operational perspective, it has greatly improved the reliability of meter readings and billing, reducing disputes, corrections, and field interventions.

Early leak detection has proven to be a major performance driver. With continuous monitoring and proactive alert management, teams can intervene more quickly and limit water losses.

The anticipation capability also helps optimise operational efficiency by focusing efforts where they are needed most.

The environmental and financial impacts are equally tangible. The solution has enabled the **saving of 120 million litres of water** and **avoided €300,000 in bill adjustments** linked to overconsumption. These results directly benefit both the public service and all users, who gain better control over their water bills.

The solution has strengthened relationships with customers. As they have access to their consumption data and anomaly alerts they are empowered to take control of their water usage. This transparency is building trust and fosters a long-term culture of water conservation.

About the Client

Epernay Agglo Champagne delivers drinking water services to more than 22,000 customers, operating a 600km network and accessing 13 water resources. Managing this critical infrastructure requires maintaining high service reliability and ensuring the sustainable use of resources.

About SUEZ

Faced with growing environmental challenges, SUEZ has been delivering essential services that protect and improve our quality of life for more than 160 years.

SUEZ provides its customers with innovative and resilient solutions for water and waste services.

With 40,000 employees across 40 countries, the Group works with customers to create value over the full lifecycle of their assets and services, and to drive their low carbon transition.

In 2025, SUEZ provided drinking water for 67 million people worldwide and sanitation services for more than 36 million people. The Group generated 8.7 TWh of energy from waste and wastewater. In 2025, SUEZ generated revenues of 9.5 billion euros.

