

Winning consumer confidence through automatic reading and reliable billing

Chartres Customer Case

85 m³



55 m³/h



27,231 m³/h

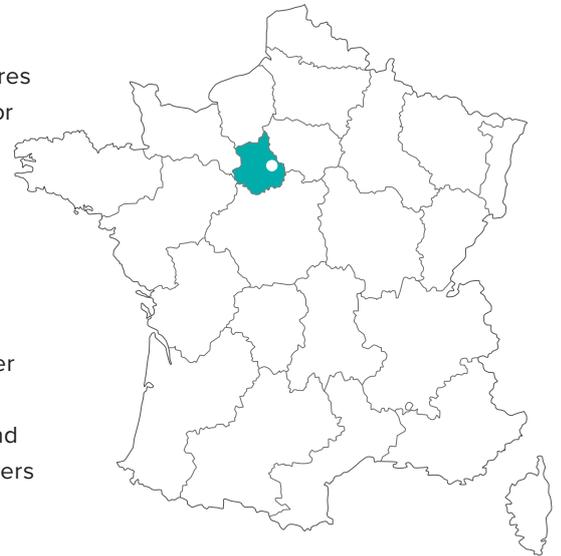




CHARTRES MÉTROPOLE EAU (CM EAU)

Located around 88km (approx. 55 miles) south-west of Paris, the Greater Chartres area is home to 140,000 people. Since 2016, the region's public water service for water production and water supply has been led by a private-public partnership named Cm Eau. This type of semi-public company, which is a partnership between Chartres's local authorities and the private water utility Aqualter, is known in French as a SemOp, and its unique structure of shared governance helps promote seamless collaboration.

By working with Diehl Metering to upgrade its water meters and automate meter readings, Cm Eau successfully addressed many of the distribution network's historical challenges, including labor-intensive data collection, wasted water and unreliable billing. The upgrade also helped increase satisfaction among end users and enhance their overall perception of the Chartres local authorities.



140,000
INHABITANTS
in the Greater Chartres area



50,000+
METERS
replaced over 1.5 years



95%
OF METERS READ
automatically using a fixed
network and Passive Drive-By

THE CHALLENGE: TRANSFORM BILLING AND METER READING TO REGAIN CUSTOMER TRUST

Before Cm Eau was founded in 2016, one of the main challenges for the Greater Chartres authorities was the billing process. Bills were sent out twice a year to the area's 50,000 households, and were partially based on estimates. Because each bill represented a year's worth of water consumption, the total amount payable was relatively high.

This created a sense of resentment in consumers, who often perceived water prices as high and billing as unfair due to estimates.

Reading meters was also a time-consuming business. Manual data collection is hard work and the Chartres authorities struggled to recruit the right people. Furthermore, manual reading required consumers

to be at home, making it difficult to gather meter data during the day when most people are at work. These constraints, combined with the potential for human error, made manual reading an inefficient and costly process.

With the creation of Cmu Eau, the objective was to improve the billing process while strengthening the service levels to consumers and maintaining a reasonable price. An additional challenge was that water was often a limited resource in the summer, when the region's many farmers needed to irrigate their crops.

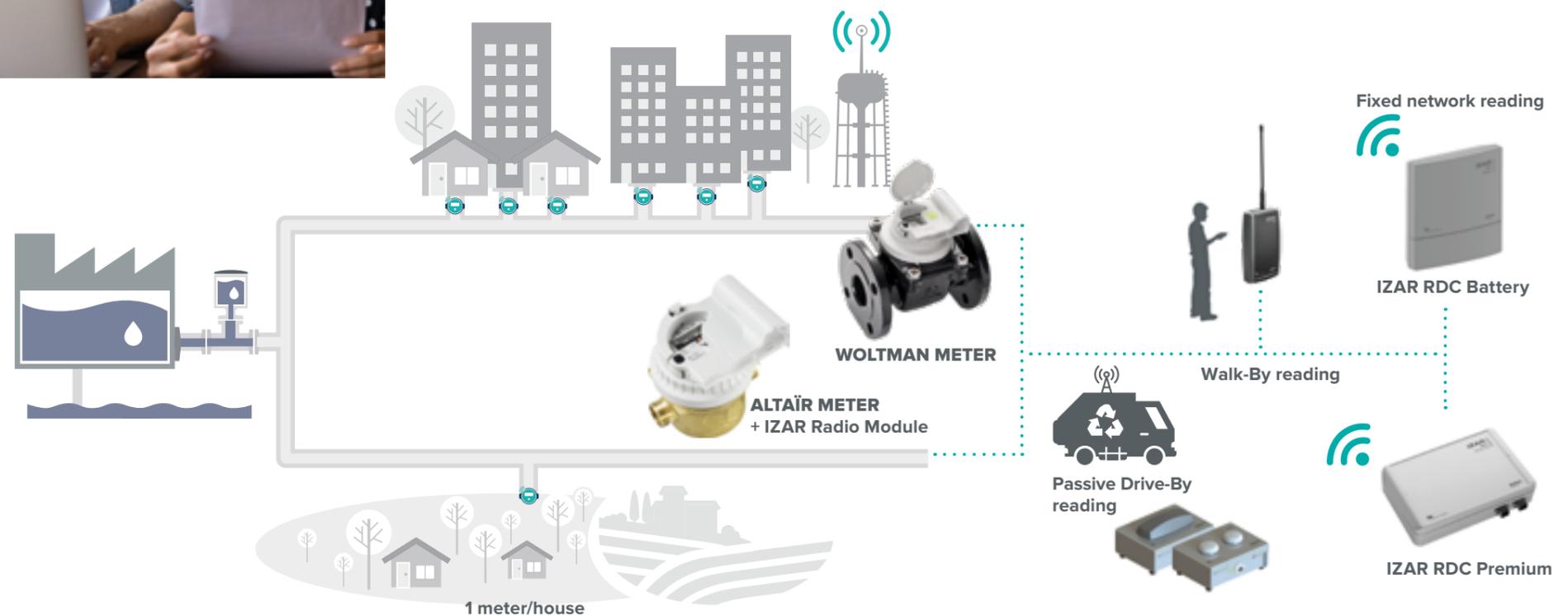
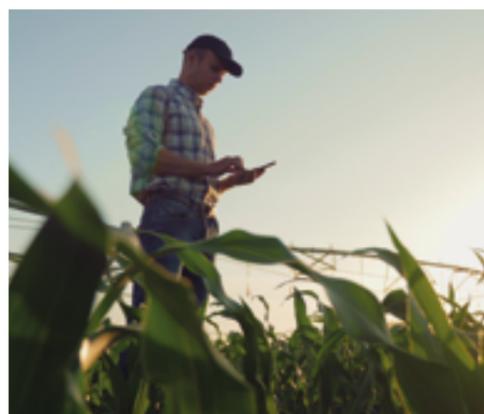
THE SOLUTION: A MULTI-PRONGED APPROACH TO AUTOMATE READINGS ACROSS THE REGION

Working with Diehl Metering, Cm Eau replaced all the water meters in its distribution network over a period of one and a half years. The majority of the network is now composed of ALTAÏR brass DN15 and ALTAÏR V3 DN20-40 volumetric water meters, with a few bulk single jet meters AQUILA DN50. All meters are equipped with IZAR radio technology, enabling readings to be made remotely. The primary aim of this upgrade was to enhance the reliability and fairness of billing.

To realize remote reading for all meters, Diehl Metering devised a trio of solutions to cover the needs of different urban and rural communities. A fixed network was established using IZAR RDC Premium and RDC BATTERY receivers. This network covers 90% of the urban area in Greater Chartres and 50% of the suburban areas. To complement this fixed network, a Passive Drive-By solution was implemented by fitting IZAR PASSIVE DRIVE-BY BOX and RDC VEHICLE receivers on local garbage trucks. When the trucks do their weekly rounds, meter readings are automatically collected from isolated meters outside the fixed network, mainly in suburban and rural areas. Finally, Cm Eau also uses a Walk-By system to gather readings from the few remaining meters that are not covered by the other two solutions or that cannot be read due to temporary work.

To help Cm Eau detect leaks in its network, Diehl Metering fitted WOLTMAN DN100-400 bulk meters equipped with IZAR RCI G4 radio.

Previously, leak detection had been almost impossible in a network that is 100km long (approx. 60 miles) and has more than 50,000 meters. Now, the bulk meters provide an opportunity to calculate network performance, map meter usages, and locate leaks more easily. As a final touch to the overall solution, IZAR@BRIDGE enables all data from IZAR RDC receivers to be integrated into the customer's database, which can then be used by their billing software.





THE BENEFITS: RELIABLE DATA FOR REGULAR BILLING AND INCREASED CONSUMER SATISFACTION

Thanks to the combination of fixed network and Passive Drive-By solutions, Cm Eau can now automatically read 95% of the meters in its network. Data is collected weekly, or even twice a week in some areas, and is extremely reliable now the potential for human error has been eliminated.

Diehl Metering's solution has enabled Cm Eau to implement accurate quarterly billing. This means households can consult their water expenditure more regularly, allowing them to adjust their consumption habits accordingly. With billing now based exclusively on actual consumption, users are less likely to perceive the service as expensive. It is also much easier for consumers to open or transfer an account when they move house. Furthermore, they can be alerted in the event of a leak in their homes. As a result of these many benefits, customer satisfaction has increased.

Through the fixed network, Cm Eau has access to numerous insights into its network performance. It can now automatically identify any meters that are not being used following a change of occupant – whereas, this previously required an employee to manually investigate which meter was inactive. In addition, system alerts help the company to identify and address leaks much more quickly, empowering it to preserve the area's precious water resources while also providing a new leak detection service to consumers.



ABOUT DIEHL METERING

Diehl Metering is a worldwide leader in the design, manufacture and supply of smart metering solutions. With over 150 years of experience, we empower utilities, municipalities and industries to take control of their infrastructures, bringing new efficiencies to the way they manage water and energy.

Our extensive range of services and solutions includes data-driven insights, IoT connectivity, fully-flexible software, and seamless intelligent metering. We also utilise artificial intelligence to boost performance and deliver cost savings for our customers.

Headquartered in Germany, we are a family-owned business with an international reach. We are proud to maintain our founding principles of quality, reliability and customer proximity while proactively shaping a better future for our customers and the communities they serve.

Our approach is to think global and act local.

By anticipating trends and remaining agile, we adapt and develop our strategy with our customers and for them.

In supporting their long-term growth, we also contribute to the sustainability of the planet, crafting innovations that enable our customers to make ever better use of the natural resources we all rely on.

