LEAK DETECTION IN NANTES, FRANCE

PHOCUS
AN OVARRO TECHNOLOGY

THE CHALLENGE

The water network management team in Nantes, France is responsible for maintaining supply from a highly complex system of underground water supply pipes. Constant road traffic and restricted access makes monitoring, troubleshooting and upgrading the water network exceptionally challenging.

The La Dopea (Direction des Opérateurs Publics de l'Eau et de l'Assainissement) leakage team was tasked with assessing the supply to one particular area of the Nantes Metropole area.

Initial investigations indicated substantial losses, but traditional leakage detection methods had failed to identify where these were. The business challenge was identifying and preventing these leaks.

THE SOLUTION

Ovarro's Phocus3m monitors leakage by combining specialist leak noise detection and communications technology with a fixed network of sensors.

During the night, background acoustic noise is lowest so the logger samples pipeline noise during three sample night-time epochs at one second intervals. It carries out statistical analysis on each of the three epochs to determine the Leakage Confidence Factor.

La Dopea technicians deployed the 700 noise loggers across sectors, one sector at a time, to achieve blanket coverage. Once deployed, the loggers send data to Ovarro's cloud based PrimeWeb online platform. There, the data is processed and analysed, and areas of interest requiring further investigation are flagged.

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WATER

MONITORING & CONTROL

LEAK NOISE LOGGERS & CORRELATORS

OVARRO
CONNECTING TECHNOLOGIES

SUBSTANTIAL COST SAVINGS

Since the initial deployment, there have been many more leaks detected and fixed. It is suggested that one identified faulty valve may have been releasing drinking water for over 5 months into the waste water system, costing an estimated €300,000.

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OPERATIONAL BENEFITS

One day after deployment, the loggers which detected leaks nearby indicated a red Leakage Confidence Factor (LCF) and immediately triggered an alert. Once able to enter the area, the technicians detected vibration at the valve where one of the Phocus3m loggers was deployed. On examination the technicians found a major fault in the valve.

Finding and repairing faulty valves has not only reduced leakage, but has also proved extremely cost-efficient and minimised the chance of potential pollution incidents. Being able to access data through PrimeWeb has allowed the La Dopea operations team to remotely monitor and identify leaks in a challenging and somewhat inaccessible environment.

KEY DELIVERABLES

- No above ground hardware required
- Cost-effective
- Reduced leakage
- Reduced potential pollution incidents
- Increased network efficiency
- Remote visibility of data