United Utilities rolls out biggest ‘acoustic project’ of its kind
aiming to tackle water leakage in their network by installing 100,000 leak detection devices by 2020.

“We have one of the largest and oldest water supply networks in the UK and it is a constant battle to keep on top of leaks. Many leaks never show on the surface, so it is a round-the-clock challenge to find and fix them”

Kevin Fowlie
Network Delivery Director, United Utilities

The Challenge

From Crewe to Carlisle, United Utilities supplies over 1.9 billion litres of water every day through a vast pipe system measuring over 26,000 miles in length. Maintaining a network of this size and actively reducing non-revenue water (NRW) is a challenge that United Utilities is proactively tackling.

Through a wide-ranging consultation process, customers of United Utilities made it clear that reducing the amount of water lost through leaks was very important to them. As a result, United Utilities has pledged to reduce water leakage by 20% by 2025.

The Solution

Following discussions with HWM, United Utilities conducted a trial project by installing 2,000 PermaNET+ fixed network telemetry devices in Liverpool and Manchester city centres. The trialling of the technology was deemed to be a great success and the 2,000 PermaNET+ units are already thought to have saved up to 5 million litres of water per day.

As a result of this impressive trial, United Utilities has decided to install a further 44,000 PermaNET+ acoustic loggers across their network by the start of 2020, with the potential to expand this to 100,000 by the end of the year.
“By 2020 we will have the largest estate of acoustic logger technology in the world. Every quarter of a mile on our water network we will be able to glean real-time data, allowing us to respond faster and more accurately when a pipe begins to leak.”

Kevin Fowlie
Network Delivery Director, United Utilities

Phase 1 of the installation will see 44,000 PermaNET+ devices being installed across the North West of England, starting in July 2019, to be completed by March 2020.

Phase two could potentially expand this, totalling up to 100,000 acoustic loggers, making the United Utilities network the largest monitored by fixed acoustic logging in the world.

This multi-million pound investment by United Utilities will play a huge role in helping to achieve their ambitious leak reduction targets.

About PermaNET+
PermaNET+ is the award-winning leak detection system that combines a leak noise sensor with versatile telemetry technology, creating a fixed network to monitor leakage.

PermaNET+ is designed with the latest mobile communication technology, reliably connecting whilst minimising cost. Each unit transmits both leak and secondary sound data via GPRS telemetry.

PermaNET+ is also fully compatible with Google Maps and overlays United Utilities' GIS pipe network, allowing for real-time tracking and helping leak teams to respond quickly to problems within the network.

About United Utilities
United Utilities Group PLC is the UK's largest listed water company. Through its subsidiary, United Utilities Water PLC, it manages the regulated water and wastewater network in the North West of England, providing services to around seven million people and businesses.

As well as supplying 1.9bn litres of water per day, United Utilities protects over 400km of coastline and around 7,000km of rivers across the region.