



Intelligent Water Networks, Greater Western Water, Veolia and FiberSense trial innovative technology to address Water Loss

2 November 2023 – Fiber optic cables already in the ground could become an early warning system for leaking water pipes through a new technology being trialled in Melbourne.

Intelligent Water Networks (IWN) is a body that fuels innovation in the water industry on behalf of its members across the sector. It is funding the trial as part of a consortium that includes FiberSense, who have innovated the technology, Greater Western Water, who own the infrastructure, and Veolia.

Together, they are testing the theory that they can quickly find and pinpoint places where water is being lost from the network through bursts, leaks, strikes or construction activities by testing the system in the GWW water supply network.

It works by using the existing telecommunications fiber as a massive array of ultra-precise vibration sensors. They can detect strikes or damage – even from unplanned or rogue activities – and the vibrations caused by leaks big and small. Any detected issues trigger real-time alerts to inform swift action.

The technology does not impact on the core performance of either the water or data networks as it does not physically change any infrastructure.

Jason Cotton, Program Director at IWN said their aim was to enhance intelligence in the water, sewer, and recycled water networks to enable proactive operational and strategic decisions from real-time data.

“We are eager to explore the capabilities provided by the FiberSense suite, and how we can work together to save substantial amounts of water across the network by early detection and repair of leaks and bursts.”

Dr Mark Englund, Founder and CEO of FiberSense, said the company had seen an increased demand for innovative and high-tech solutions to address growing environmental challenges such as water distribution integrity.

“We are delighted to be collaborating with IWN and GWW as well as Veolia – a group of organisations at the global forefront of managing water assets and addressing the challenges of limiting non-revenue water loss.” Dr Englund said.

“The trial in Melbourne follows similar projects with major water companies overseas. FiberSense technology represents a significant stride towards minimising water wastage and maximising the efficiency of water distribution systems,” he said.

Greater Western Water Acting General Manager Growth and Infrastructure Bri George, said addressing network issues could bring big benefits.

“We are always keen to explore innovative technology on early detection of leakage in our water network to assist with minimising water losses. We are looking forward to understanding the outcomes of this trial and how it could save water. That means better environmental and financial outcomes for customers and communities,” she said.

Quentin Bechet, Project Manager at Veolia, said they aimed to be the benchmark company for Ecological Transformation.

“As leaders in environmental services, we are constantly looking for new solutions to minimise the impact of human activities on the planet. We believe that the FiberSense technology can help the water industry to reduce water losses, thus protecting one of our most precious resources. Because producing drinking water is responsible for significant carbon emissions, saving water will also reduce the carbon footprint of the water industry.”

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ABOUT IWN <https://www.iwn.org.au/>

IWN is a Program of VicWater that contributes to the transformation of the water industry by driving the exploration and adoption of innovative approaches, thinking and technologies. IWN also creates opportunities that foster emerging leadership talent to lead and drive innovation across the sector.

ABOUT GWW www.gww.com.au

Greater Western Water provides water and water services across Melbourne and its rapidly expanding Western region. We play a vital role supplying drinking water, treating wastewater and providing alternative water to communities and industry.

ABOUT VEOLIA www.veolia.com.au

Veolia Group aims to become the benchmark company for ecological transformation. Present on five continents with nearly 213,000 employees, the Group designs and deploys useful, practical solutions for the management of water, waste and energy that are contributing to a radical turnaround of the current situation. Through its three complementary activities, Veolia helps to develop access to resources, to preserve available resources and to renew them. In 2022, the Veolia group provided 111 million inhabitants with drinking water and 97 million with sanitation, produced nearly 44 million megawatt hours and recovered 61 million tonnes of waste. Veolia Environnement (Paris Euronext: VIE) achieved consolidated revenue of 42.885 billion euros in 2022.

ABOUT FIBER SENSE www.fibersense.com

FiberSense Ltd was formed to dramatically improve everyone’s experience in public spaces by adding a new level of real time and historical awareness of anonymised objects and events in public spaces. The team at FiberSense invented and patented a new class of sensor system over optical fiber cable infrastructure called Vibration Detection and Ranging. FiberSense technology sits at the

intersection of optical fiber sensing, integrated photonics, artificial intelligence and optical fiber telecoms networks. They bring these capabilities together in a digital platform that can be sampled at www.fibersense.com

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