



Source

The magazine of the International Water Association

**Beyond resilience:
the anti-fragile
future of water**

**Indah Water
Konsortium's
sustainable path**

**Wastewater
challenges
in LMIC**

Accelerating the role of water reuse

OCTOBER 2021

Solutions

Treatment

First contract for graphene technology

UK technology business G2O Water Technologies has reported that it has won its first commercial contract for the enhancement of water filtration membranes with graphene oxide. It says it is the first commercially successful application of graphene technology for water treatment and so is particularly significant for both G2O and the global water sector. Graphene oxide helps to enhance membrane performance by mitigating the effects of fouling, one of the biggest challenges faced by operators of membrane-based water filtration systems.

Industry

Savings accumulate for Indonesian petrochemical giant



Chandra Asri, the largest integrated petrochemical company in Indonesia, has boosted its sustainability achievements after deploying Nalco Water's 3D TRASAR Cooling Water Technology, used for effective remote and digital monitoring of water operations. The company first installed the system at its plant in Cilegon, Banten, in 2015, subsequently moving more of its water over to the programme. According to Nalco parent Ecolab, 2020 saw the greatest savings at the site to date, reaching more than 348 million litres of water, six million kWh of energy, 470,000 cubic metres of wastewater, and 2100 metric tonnes of carbon dioxide.

Digital

Vodafone IoT launch for the UK

Vodafone has launched a new IoT-based technology to help UK water companies improve monitoring and detection systems, increase efficiency, reduce wastage, and meet regulatory requirements.

According to Vodafone, the solution incorporates a single data management platform that integrates old and new sensors in one system, which it says dramatically improves operational efficiency.



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Water loss

Singapore success for Aquarius Spectrum

Provider of water leak detection and pipe condition assessment solutions Aquarius Spectrum has announced that it is to deploy its AQS-SYS acoustic monitoring system for leak detection in Singapore's drinking water supply network. The solution was included in a proposal by the company's local partner for provision of leak detection services, after

being awarded the tender by Singapore's national water agency, PUB. Aquarius will provide 900 hydrophone sensors, designed specifically for underground installation, to be installed on Singapore's large water mains. The sensors will perform leak monitoring over approximately 400 kilometres of water pipeline over the next five years.

Water loss

South Korean start-up tech used on Indonesian water loss

Water resources management company SUPRA International Indonesia has announced that it is working with South Korean start-up WI.Plat to implement a pilot project using innovative technology to manage water leakage in water supply systems.

According to SUPRA, the new WI.Plat technology has been designed to help water companies locate leak points with IoT, Cloud technology and Artificial Intelligence (AI). This in turn will help them to carry out repair work efficiently, thereby improving services to customers, saving water and protecting water resources.

The pilot project mainly focuses on applying Intelligent Water Leakage Management Systems to water management in the Sukabumi region of Indonesia. It is part of a Creative Technology Solution (CTS) programme supported by Korea International Cooperation Agency (KOICA) in partnership with WI.Plat and SUPRA International Indonesia. According to SUPRA,



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it will be the first pilot project cooperation by South Korean and Indonesian companies in reducing Non-Revenue Water in Indonesia.

The programme will run for 12 months, aiming to reduce the Minimum Night Flow rate by 30% in the two pilot project areas. The project team will jointly detect leaks using the WI.Plat NELOW application and the M1 sensor with WI.Plat technology connected via a smartphone. The team will work to find leaks and carry out computational analysis using AI to support repair of the leaks. The team will also carry out a performance assessment to evaluate the level of NRW.