Aldam Technologies | Maxadox 5

Maxadox-5 is a modular device using synergistic physicochemical processes for disinfection and game-changing advanced water treatment. It improves the treatment of large volumes of water, with lower energy requirements, at lower cost, with less consumables and chemicals. It may be retrofitted or installed in greenfield projects for disinfection and superior treatment of contaminants including iron, manganese, aluminium, turbidity, colour and emerging pollutants. Applications include treating river, dam and ground water, sewerage and wastewater for reuse and purification for agriculture, industrial and potable water requirements.

Country of origin

W & WW treatment

Link to website

Pamela Albarough
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HULO

HULO's mission is to provide a globally affordable solution to improve water supplies and to reduce water losses by doing it 'together' with our clients. We believe that developing knowledge together with water utilities is most beneficial for a sustainable and future-proof water supply. Based on PhD-research, we have developed revolutionary algorithms to design DMAs and to detect, localize and classify anomalies (e.g. leakages) in water distribution networks. This solution works in the client's digital infrastructure, allowing them to understand and learn from it.

Water utilities are the owner of their physical network, so they should also become the owner of their digital network.

Country of origin

Leak detection

Link to website

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Hydrodrip | Hydrowallet

HydroWallet is a digital water credits platform that incentivizes efficient water usage and best practices. It is an offsetting mechanism between efficient users and excessive users. Excessive users buy water credit from efficient users to balance water consumption and avoid inefficiencies.

Water credits can be generated in 3 different ways:

- By using less water.
- Organizations can develop water projects for people in needs.
- By fixing leaks on water distribution networks.

The HydroWallet system rewards people and organizations by providing value to their efforts as they are more responsible and accountable

Country of origin

Water credit platform

Link to website

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Country of origin

Microplastics

Link to website

Klar2O | Smart Surface Technology

About 325 different plastic particles are in one liter of drinking water, that were partly absorbed by our bodies and accumulate in the liver, adipose tissue, bloodstream, lungs, kidney, the placenta, and even our brain and can cause serious health damage in humans. We developed a special biochemical adsorbing coating, which is able to bind microplastics of all kinds and sizes from water. Our sustainable smart surface technology is recyclable and regenerable. With our technology, we want to re-naturalize water, our life-building block, and eliminate the danger of microplastics for a healthy life

Fäehzan Ahmad
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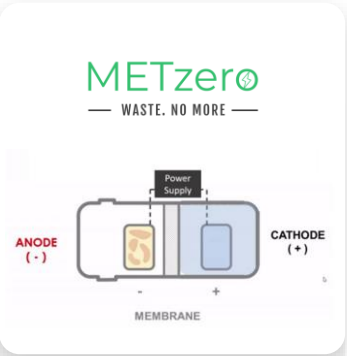

Country of origin

WW treatment

Website still in construction

METzero

We are the only retrofittable and energy-saving wastewater treatment technology that recovers products of economic value from wastewater such as hydrogen and ammonia. We reduce the organic load of wastewater up to 60% in 12hrs and save up to 600 kwh/day. We help companies cut costs and meet their Net Zero target.

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Country of origin

Aeration system

Link to website

Mixanox | PIJAMA

Mixanox offers unique solutions for upgrading wastewater treatment plants, enabling best-of-breed biological treatment methods to be integrated into existing infrastructure rapidly and cost-effectively. By utilising a novel mixing/aeration system, Mixanox-PIJAMA®, a quick plug-in system for aeration reactors, is capable of increasing oxygen transfer efficiency 6-fold (from 15% to 90%), resulting in a 95% reduction in fugitive greenhouse gas (GHG) emissions. With a low return on investment, it achieves up to 50% less energy use and further GHG emissions reduction; by intensifying the process efficiency, existing infrastructure can be used to its fullest capacity, thus eliminating the need for new construction

(presented during Wastewater EU TAG 27)

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Mop Tech Industries | Floc-Opex Recovery (FOR)

Mop Tech Industries' Floc-Opex Recovery (FOR) solution is designed to assist potable water treatment works with the coagulation and flocculation stage of drinking water production. The objective of FOR is to recover and recycle metal based coagulants that form part of Water Treatment Residual (WTRs). There are three main benefits of using FOR. It is cheaper to recover and recycle metal based coagulants utilising FOR compared to buying virgin materials. Secondly, FOR is able to assist reduce the amount of Al and Fe related waste disposed of in landfill sites and water bodies. Lastly, FOR can assist in reducing the impact of market price fluctuations of coagulants on treatment works

Country of origin

Resource Recovery

Link to website

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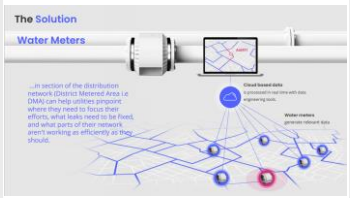
Pydro |SpheroScan

PYDRO GMBH is a cleantech startup from Germany driven by the founders' passion to preserve potable water.

The self-powered smart flow meter for water pipes is a fit and forget device which delivers data 24X7 once it is installed. In a basic version, the PT1 measures flow, temperature & pressure at high accuracy levels and can be installed anywhere in the network without the need for an external power supply. The uninterrupted power source enables continuous measurement and data output which provides reliable insights to manage smart water networks, resulting in reduced water leaks, pipe bursts and real-time quality checks.



Country of origin

Smart flow meter

Link to website

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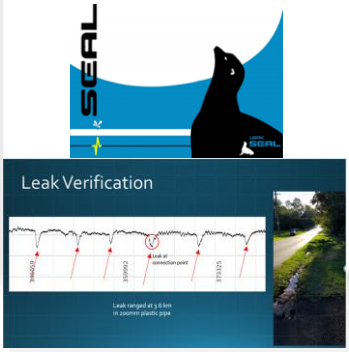
Seal Water Technologies | Active Sonar Leak Detection

The current best technology for leak detection of 'correlating acoustic sensors' has not moved on appreciably in the last 50 years. The fundamental physics behind correlation limits its range, with acoustic sensors placed every 300m, thus making it infrastructure and capital heavy. To address these and other limitations, SEAL Water Technology Ltd has developed 'Active Sonar' – an innovative leak-detection technology. Active Sonar generates a self contained very small shockwave. This is injected into the water causing 7-5 km of pipe to sing with returns thereby revealing leakages location. It is non-destructive, non-intrusive, detects at long range and works equally well in ferrous and non-ferrous pipe materials.



Country of origin

Leak detection

Link to website

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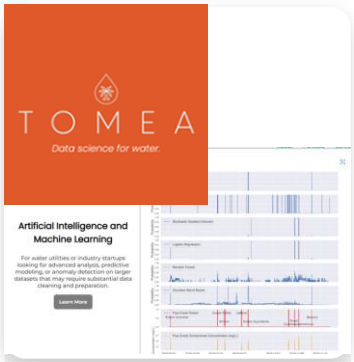

Country of origin

Data analysis

Link to website

TOMEA

85% of all water utilities in the US have three or less employees. Most have never worked with a Data Scientist. Meanwhile, only about 0.2% of all Data Scientists have experience in the water industry. Few Data Scientists understand water.
The Engineering Services industry is a $326 Billion industry in the US. Even the smallest of water utilities often still have an engineering consultant. Who do they go to for their data? Tomea is the first Data Science consulting firm solely dedicated to the water industry. By connecting directly with utilities, startups, and other consultants, we provide data analysis and digital solutions for the water industry.

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