WATER RESILIENCE & EMERGENCY PREPAREDNESS

Israeli Technologies for Water Scarcity Event

JUNE 26-29,2023 | TEL AVIV

CATALOG OF COMPANIES

Content

Israel's Water Industry: A Stream of Innovation

The **Israeli Water Industry** includes more than **130 companies,** most have reached a growing stage and many are already present globally.

Numerous companies have reached **international recognition**, and some have become leaders in the following field **smart meters**, **water flow management**, **filtration and purification** technology and **desalination**.

Some consolidation took place within the Israeli Industry in the recent years as well as M&A. Furthermore, Israel known for vibrant ecosystem has had and continues to have innovations in the water sector which includes all the solutions to **Water and Waste water treatment**, **management** as well as **rapid deployment in emergency situation**. The **Irrigation sector** is mainly integrated in the Agritech sector.

Most of the Israeli companies are active on many segments and cater for the **municipal market** as well as for **various industries** (from the food & beverage, to pharma & chemical, to semi-conductor, and to the mining and oil & gas industries). In addition to the **Water Safety and Security** which include also the solutions to secure the Water Infrastructure, other companies specialize in **emergency solutions and water transportation to remote or off-grid locations**.

However, the fastest growth is in the use of **digital technologies** and accounts now for a big part of the **management and monitoring solutions** using **AI** as a predictive tool for monitoring the network**.**

Many of these solutions can be most relevant to solve the problems linked to the increased effect of climate change has on the world water scarcity.

Furthermore, due to the extensive accumulated **experience and know-how, many engineering and consulting companies** offers their services all around the world.

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Israeli Technologies for Water Scarcity Event

ISRAEL · MANUFACTURERS' ASSOCIATION OF ISRAEL · ISRAEL EXPORT INSTITUTE · Ministry of Economy and Industry Foreign Trade Administration · WATER AUTHORITY

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Necessity led to National Strategy

From Israel's establishment, water scarcity has been a major issue due to very little natural resources (the Sea of Galilee is the only significant natural reservoir) and little rain in the North of the country during the short winter season. More than half of the land is arid. The Israel Water Authority acts as the regulatory body which allocates water quotas and prices, and Mekorot is the National Water Company that deals with the bulk water that it distributes to the municipalities. It built and operates the National Water Carrier which transports water 130km from the Sea of Galilee through pipes, canal and reservoirs to the country's center and south and through a complex pipeline and pumping network brings water to most communities.

In addition, Israel has a growing population of more than 9 Million that consumes about 2030 million cubic meters of fresh water every year, about 50% of which is allocated to agriculture.

We produce most of our foods and exports food & fruits as well as flowers. All crops and gardens are drip irrigated (this technology was invented here) saving up to 1/3 of the water. To deal with scarcity, a focus was put on reducing water loss (NRW), and to use Wastewater and desalination as alternative sources. In addition to water saving technologies in agriculture like drip irrigation, or development of plants that can adapt to brackish water. Through awareness, regulations and focus on technological innovation, Israel has succeeded in all three. Today Israel is the leader in NRW with only 8% (average loss is around 30%). Almost 90% of our waste water is being reused for agriculture and allow reducing our use of water for the agriculture sector of about 50%. In addition, five desalination treatment plants based on RO are active (and are among the leading plants in the world) and 2 more in planning. Due to innovation and experience, these process has become efficient and less energy demanding.

Thanks to this experience and technologies, Israel has reached a water surplus that it is using to refill its natural water resources. Hence, Israel's image as a leader in water management.

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Smart Management and other NRW solutions

Through smart management using sensors and digital technologies such as smart meters, Israel has developed knowledge and experience which proved really efficient. Today, longer powered sensors (more than 20 years) and machine learning technology that use predictive are leading this market. Water management (Central Event Management – CEM solution) is about far more than leak detection and now it's increasingly about data technologies and smart water management. Today, many utilities understand that they need more advanced techniques that give them better visibility into what is happening in their underground network. In addition to reducing non-revenue water (NRW), they are looking to new technologies and processes to help them improve their operational efficiency and customer service. Smart Water solutions includes also water quality analysis in real-time and with the useful data to event assist Health authorities in where viruses are still active.

Water reclamation and Reuse

Israel is leader in wastewater treatment and reuse, applying innovative secondary, tertiary and even quaternary purification methods that can recycle any type of industrial wastewater. From high-purity industrial water for pharmaceuticals or other medical industries, for the electronic /microelectronic industries as well as all kind of treatment solutions for drinking water and Food & Beverage industries. For agriculture as it requires a high purification level too, a unique technology was developed called SAT – Soil Aquifer Treatment.

Desalination

Our Desalination Plants received many awards. Now more advanced technologies such as PFRO has 6 times the ability to remove unwanted fouling particles, making it so much more efficient.

Filters and other advanced purification systems

From unique patented UV solutions that are more efficient than other UV systems, to sustainable recycled medical filters, and many other filters that can filter up to 1μ.

Emergency Solutions

Due to this long experience with treatment and purification, Israel has developed mobile and smaller scale systems that can be easily deployed during emergency events. They are often used by NGOs and other Relief Organizations. The newest technologies address the energy efficiency and can be solar powered. Other technologies uses filters with such high density that they can prevent the use of chemicals, some allow to reduce the brine and sludge to such minimal amount that they are part of ZLD solutions and thus have minimal environmental impact.

Water Flow equipment

Many companies produce quality corrosion resistant products and parts for the water distribution: unique pipes, valves and connectors as well as water meters that require minimum maintenance and very durable. These products are designed for the water or waste water networks or for fire protection, for industries including harsh industries such as mining and of course for irrigation. Many of these products brands are known and sold around the world.
Smart meters now ultrasonic has become the most reliable technologies as no moving parts ensure pinpoint accuracy without any maintenance efforts and costs.

Quality control systems

Many companies offer advanced technologies that analyze in real-time of many variables and supplement the water supply if needed. Some solutions allow producing chlorine on time avoiding its transportation.

Israel Export Institute

The Israel Export & International Cooperation Institute, supported by member firms, private sector bodies and the government of Israel, advances business relationships between Israeli exporters and overseas businesses and organizations. By providing a wide range of export-oriented services to Israeli companies and complementary services to the international business community, the Institute helps build successful joint ventures, strategic alliances and trade partnerships.

The IEICI's Water sector is matching companies in the Israeli Water tech industry and worldwide business partners at all levels. It has proven ability to identify and match suitable potential business partners, organizes one-on-one business meetings, and is a focal point for contacts with the government as well as with the industry.

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Foreign Trade Administration

The Foreign Trade Administration (FTA) at the Israeli Ministry of Economy and Industry manages and supports Israel's international trade and trade policy. Through our headquarters in Jerusalem together with over 45 economic and trade missions in key financial centers throughout the world, the FTA promotes Israel's economy worldwide.

The FTA is divided into three main divisions, each promoting the Israeli economy in distinct and significant ways:

- The Trade Promotion Division - works to ensure the continued development of Israel's exports.
- The Trade Policy and International Agreements Division - responsible for Israel's free trade agreements, maintaining and developing inter-governmental relations and addressing regulatory barriers that affect Israeli industry.
- The International Projects and Financing Division - offers different programs that support Israeli companies in their business operations abroad.

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	Bermad	Takadu
	Cywat	VBact
	Hoffmann & Hoffmann	Watersight
	Io sight	Wint-Wi
	IPipe	
Process	Amiad	Maagan Filtration
	Aqua HD	Mapal Aeration
	Aqwise	NUFiltration
	Atlantium	Odis
	Bio Castle	Ofra Aqua Plants
	Bio Petro Clean	P2W
	CQM	Purammon
	CuraPipe	ROTEC
	Elad Process	Tethys
	Gal Mobile	Toxsorb
	GES	Triple T
	IDE Technologies	Turbulent
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Companies Profile

AGM Communication & Control LTD

Real-time Distribution Control Networking

www.agm.co.il

Category

Water Management

Short Description

AGM Communication & Control is a provider of smart communication and control solutions for SCADA and DCS systems in the areas of water and wastewater, oil and gas, energy, and environmental real-time monitoring and control. The company's original product, R-Win, enables smart, gradual, and economical SCADA/DCS network optimization and upgrading. R-Win, which is installed at remote field stations between the PLC/RTU and the wireless transceiver, is designed to make each station smarter.

Amiad

Water Treatment and Filtration Solutions

www.amiad.com

Category

Filtration & Purification

Short Description

Amiad Water Systems develops and produces automatic, self-cleaning water treatment and filtration solutions. The company provides green solutions for the industrial, municipal, irrigation, oil and gas, and ballast water markets. Amiad's patented products are being integrated into the core of systems including filtration and water treatment, micro-irrigation and membrane protection, wastewater and potable water treatment, cooling systems, and sea water filtration. Headquartered in Israel, Amiad provides its water treatment and filtration solutions through 9 subsidiaries and a network of more than 170 distributors to customers in over 80 countries.

Aqua HD

Separation and Filtration Systems for Sewage and Wastewater

www.aquahd.net

Category

Filtration & Purification

Short Description

Aqua HD has designed a closed system with an internal structure that captures and removes suspended solids from flowing liquid in a continuous, hydraulic manner. The Aqua HD system is capable of removing suspended solids ranging from 1 to 2,000 microns from water, with a dirt load of up to 4,000 mg/l of total suspended solids. The technology is capable of separating particles with high size variability without losing significant efficacy from increased dirt load, making adjustments, or stopping the separation process.

AQUALITAS Technologies ltd.
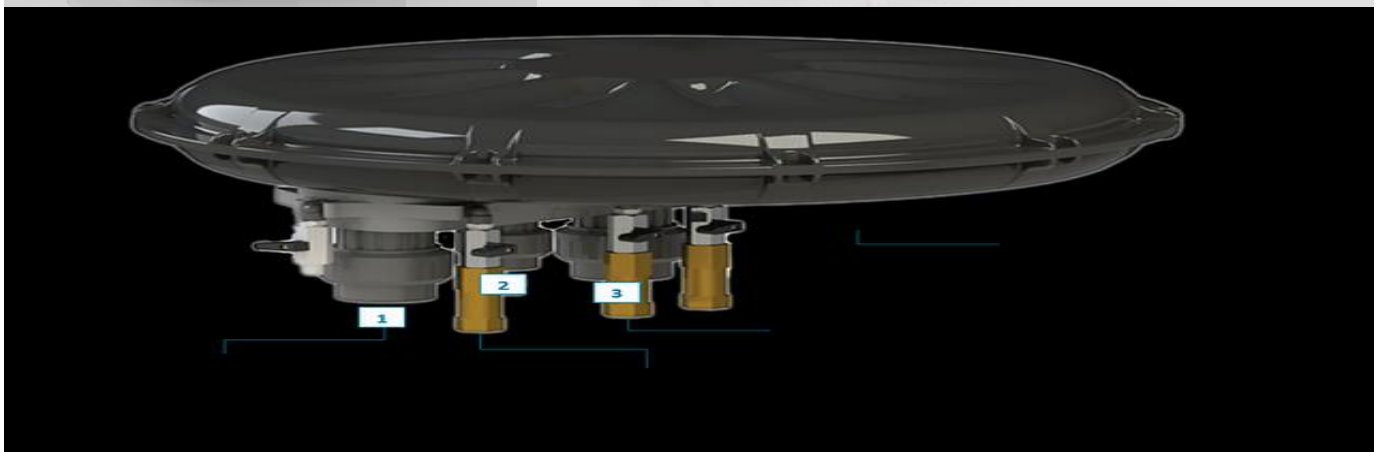
Reliable and accessible multi-parameter water quality monitoring platform empowered by AI and provided as a service

www.aqualitas.tech

Category

Measurement & Analysis / WW & Reuse/ Water Emergency & Security/ Water Management

Short Description

AQUALITAS strives to enable water system operators and users to make informed operational decisions based on reliable data. Through a deep understanding of the water chemistry and sensory principles, AQUALITAS develops advanced ML and AI models that monitor the operational stability of the sensors on a proprietary water quality monitoring platform and perform automatic calibration without human interaction or cleaning. The real-time water quality data collected by our IoT system is analyzed on a SaaS platform and can be translated into actionable insights by operators, resulting in lower costs and improved efficiency and performance. Our disruptive technology eliminates the guesswork involved in operating real-time water quality sensors. With monitoring provided as a service pricing model, both large and small operators can now take advantage of real-time water quality monitoring.

Aquarius Spectrum

Acoustic Leak Detection & Pipe Condition Assessment

www.aquarius-spectrum.com

Category

Water Management

Short Description

Aquarius Spectrum developed acoustic solutions that enable water utilities to perform proactive monitoring of their underground assets and detect background leaks in their initial stages of development and fix them before they surface and cause serious damage, Aquarius also assess the real condition of the pipes. These solutions, which are based on sensitive fixed and mobile sensors with advanced correlating algorithms, can be applied in all types of pipes. To date, the company's technology is monitoring thousands of miles of municipal water pipelines worldwide, helping water utilities reduce their Non-Revenue-Water (NRW) and their Maintenance and Operational (M&O) costs.

Aquestia – A.R.I., Dorot, OCV

Advanced hydraulic solutions for optimal management of liquid conveyance systems

www.aquestia.com

Category

Valve & Connectors

Short Description

Aquestia is a world leader in providing optimal solutions for surge protection, water loss reduction and pressure management, by integrating uniquely developed products with innovatively designed software. Bringing together three strong brands - A.R.I., Dorot and OCV – we combine decades of experience, a wealth of knowledge and expertise, and a wide range of solutions and services.

Aquestia offers a comprehensive line of air valves, control valves, check valves, surge tanks and state-of-the-art smart water solutions. We are where liquid flows, serving customers in segments that include waterworks and

wastewater systems, irrigation, fire protection, mining, ballast water and desalination, commercial plumbing, aviation fueling, oil & gas, and more.

Aquestia – high-quality, reliable products and committed service - for your peace of mind.

AqWise

Biological Water and Wastewater Treatment Solutions

www.aqwise.com

Category

Waste Water Treatment & Reuse

Short Description

Aqwise develops and implements water and wastewater treatment solutions for the industrial and municipal markets. Its solutions increase biochemical oxygen demand and nutrient removal capacity in water and wastewater treatment plants, offering enhanced utilization of existing reactors and efficiencies in the implementation of new ones. In the drinking water segment, Aqwise is operating a biological groundwater treatment facility in Israel that removes nitrates from well water without any brine residue.

Arad Group

Wireless, Automatic Meter-reading Data Networks

www.arad.co.il
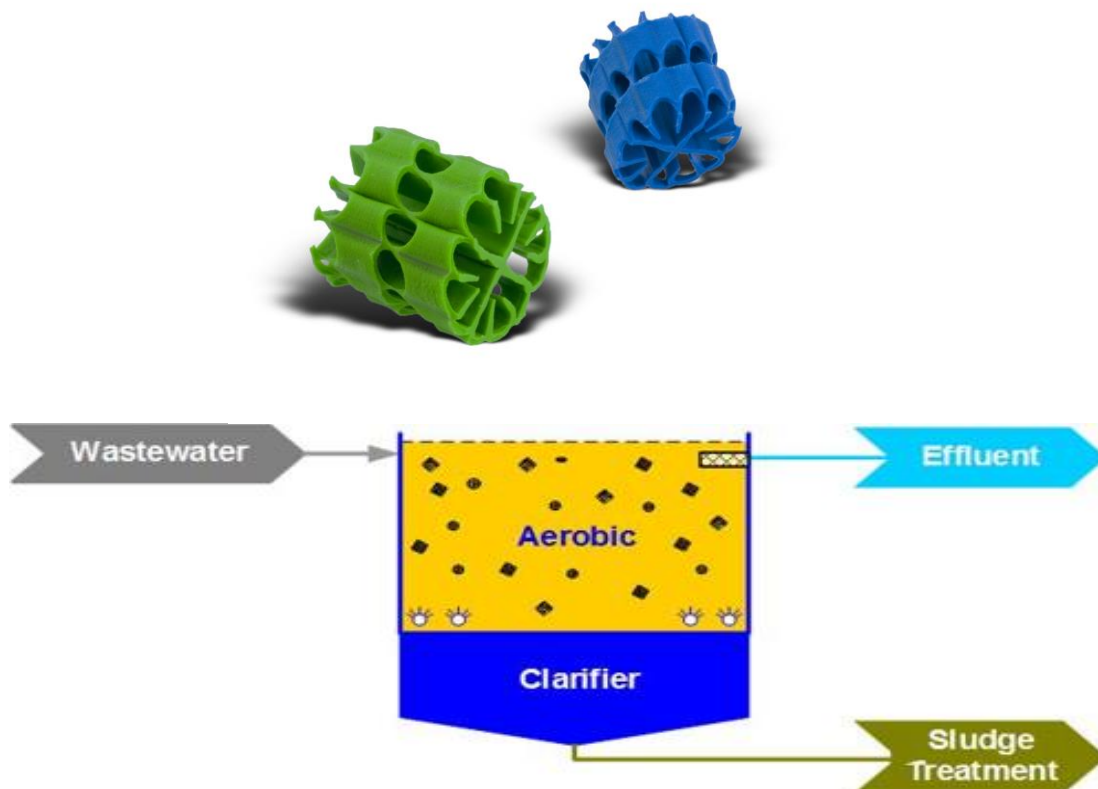
Category

Water Management

Short Description

The Arad Group specializes in designing, developing and manufacturing high quality water meters, automatic meter reading (AMR) and advanced metering infrastructure (AMI) systems, and advanced MDM (Meter Data Management) systems and technologies. The Arad Group delivers an end-to-end solution for smart water management in today's smart cities and is a fully integrated source for complete water metering management and control systems.
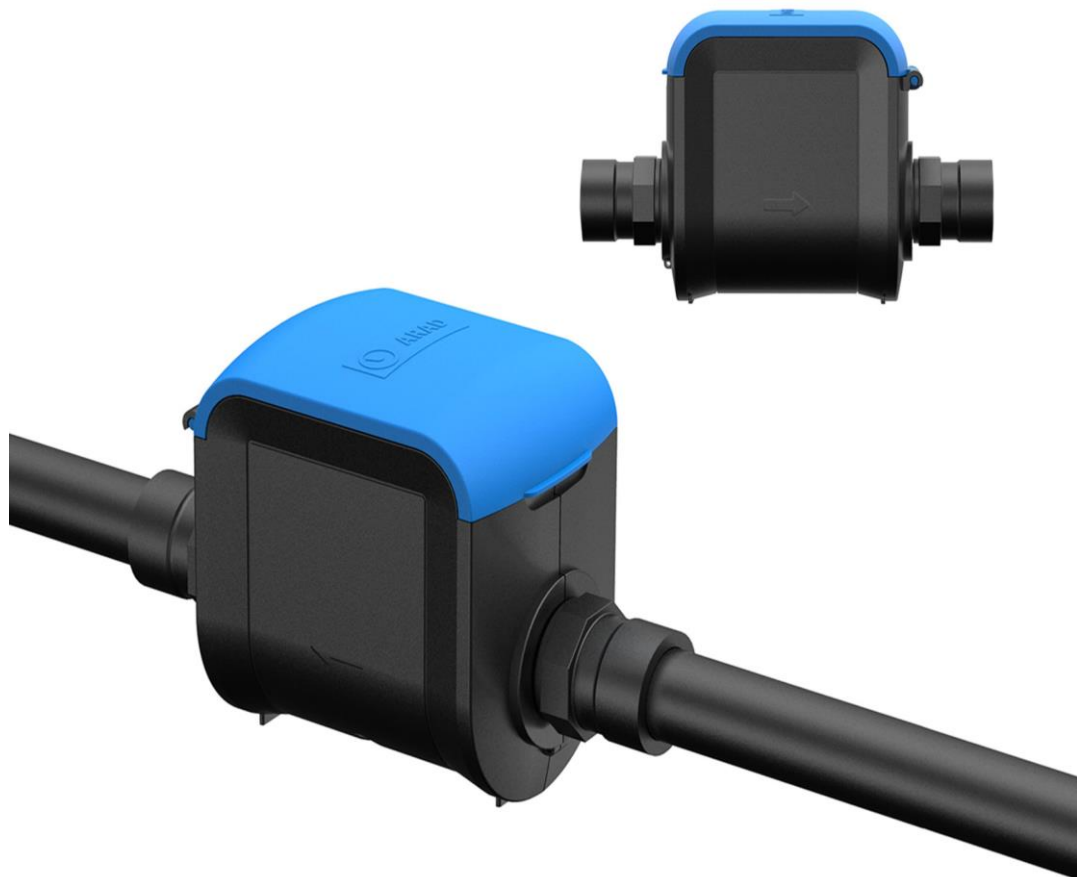
Asterra

Satellite-based Leak Detection

www.utiliscorp.com

Category

Water Management

Short Description

Asterra uses L-Band synthetic aperture radar (SAR) imagery and turning it into actionable data to detect subterranean saturated soil. Asterra changes completely the way water utilities manage their leak detection program for both potable water and wastewater. Additionally, Asterra provides data of soil moisture content that can be used as an early warning tool for railways and roadways monitoring to prevent slope failures and potential landslides.

1

Satellite Spectral Image Acquisition

Raw images of the area taken by a SAR operating in the L-band are acquired.

2

Radiometric Corrections

Utilis takes the raw data and prepares it for analysis, by filtering bounces from buildings and other manmade objects, vegetation hydrologic objects, and more.

3

Algorithmic Analysis

Using Utilis advanced algorithmic analysis to track the spectral "signature" of drinking water in the ground.

4

Web based app and intuitive UI

Leaks are displayed in user friendly GIS reports, within a less than 100 meters buffer .

Atlantium

Ultraviolet-based Water Treatment

www.atlantium.com

Category

Water Management

Short Description

Atlantium Technologies Ltd provides safe and sustainable water treatment solutions based on ultraviolet (UV) disinfection, fiber optics, and hydraulics. Its systems offer high levels of water safety and provide industry and municipalities with a sustainable, measurable option. Atlantium offers solutions for water-dependent heavy and light industries, including power and energy, biopharmaceuticals, food and beverages, dairy, aquaculture and aquariums, and municipal water providers.

Bermad

Water Control Solutions

www.bermad.com

Category

Control & Communication

Short Description

Bermad develops and produces high-quality hydraulic control valves. The company's solutions incorporate advanced flow-control technologies and have been used in the irrigation, water works, and fire protection industries. Bermad also specializes in air flow control, which plays an important role in controlling liquid flow in pipelines.

BioCastle Water Technologies

SBP capsules to enhance biological water and wastewater treatment without capital investment

www.bio-castle.com

Category

Filtration & Purification/ WW & Reuse

Short Description

BioCastle developed the SBP capsules as a method for bio-augmentation in waste water treatment. The capsules are micro-membranes that work as a MBR and keep the bacteria inside, separated from the treated water. Water and contaminants will go through the membrane while the bacteria inside will treat the water from the designated contaminant.

This method solves 3 significant problems for bio-augmentation: (1) Controlling or engineering the type of culture for implementation – no bacteria can penetrate or escape the capsules (2) Calculating the amount of implemented biomass (3) Controlling the implementation site

SBP capsule (Small Bioreactor Platform)

Capsules are implemented with introduction devices as in picture

Bio petro clean

Biological Treatment for Industrial Wastewater

www.biopetroclean.com

Category

Water Management

Short Description

BioPetroClean (BPC) specializes in biological wastewater treatment, offering a variety of products ranging from one-time solutions to continuous wastewater-treatment implementations. The company's Automated Chemostat Treatment (ACT) technology is an ecological, biological wastewater-treatment solution. The scientific concept behind ACT is the application of an appropriate bacterial cocktail for a specified type of polluted water coupled with a chemostat process.

Booky Oren Global Water Technologies

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k2i – Knowledge to Implementation Platform

https://www.bookyoren.com/
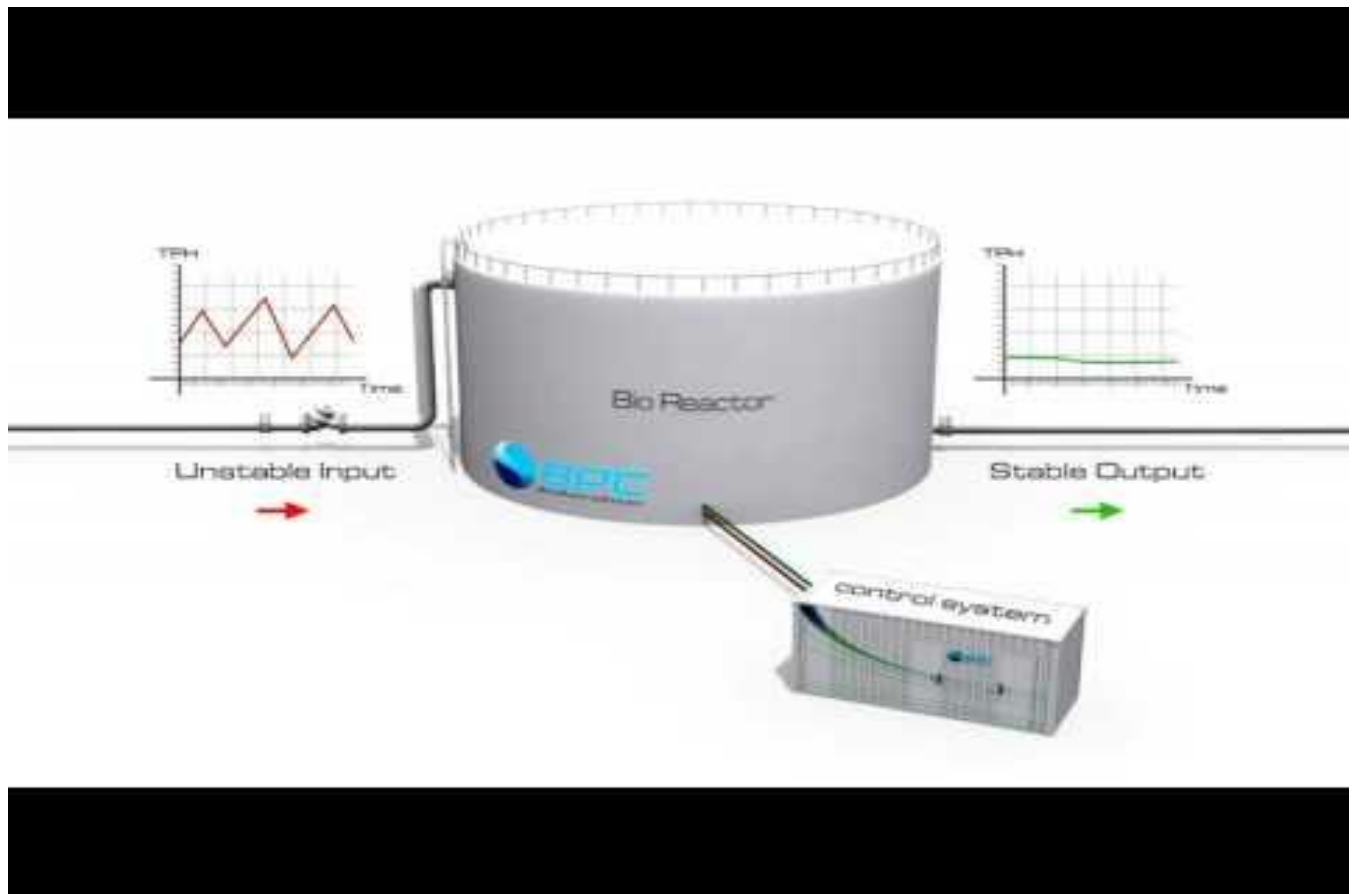
Category

Professional Knowledge Broker Company

Short Description

Booky Oren Global Water Technologies (BOGWT) initiated the K2i - Knowledge to Implementation platform in 2020. currently, the K2i Platform includes more than 20 members (US, Europe, Singapore, and Israel) that are serving a population of more than 80 million citizens.

The K2i has defined over 200 points of expertise that leading global utilities are happy to share with their peers in a structured process.

In the last two years, the K2i facilitated 116 discussions between agencies, all of which are available to all members of the platform via the K2i portal. The K2i Platform enables the agency to save time and money, improve operations, and allow not to have to reinvent the wheel!

K2i Platform – Achievements since August 2020 and Current Status

- **116** K2i Meetings with over

- **20+** Leading Utilities

- **80+** Population Served

- **200+** Areas of Strength identified and documented

- **100+** Accessible Recordings

(and continuously growing!)

- **23** K2i+ Workshops

Number of meetings:
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

C.Q.M.

Automatic Tube Cleaning System and Chemical-free Water Treatment Solutions

www.cqm-tech.com

Category

Water Management

Short Description

Cooling Quality Management (CQM) develops cost-effective fouling prevention and water treatment systems for cooling systems. The company develops environmentally friendly solutions designed to keep heat exchangers and cooling towers continuously free of scale, organic growth, and corrosion. In most cases, the company's systems totally replace the water chemicals used, save cooling water and energy, and provide a quick return on investment.

CQM SRCT Cooling water scale removal and disinfection system

CQM ATCS automated tube cleaning system

Curapipe System

Bulk Reduction of Leakage in Water Distribution Pipes

www.curapipe.com

Category

Leak Detection

Short Description

Curapipe developed the patented Trenchless Automated Leakage Repair (TALR), which is a solution for rapid bulk reduction of unsustainable leakage levels. It is designed to work along with ongoing active leakage management services and works well with installed network pressure reduction systems. Curapipe's TALR is an internal pipeline leakage repair solution for multiple leaks in water distribution networks. TALR is especially well suited for pipelines with substantial leakage from multiple sources of leaks. TALR is suitable for a wide range of pipe materials and as a standalone system. Once launched into the treated pipe section, it self-detects water leaks and automatically seals and cures them.

CyWat Technologies

Water Quality Monitoring Solutions

https://www.cywat-tech.com/

Category

Water Management

Short Description

CyWat Technologies develops cyber-like physical water protection systems for the water-monitoring industry and water authorities, with the endorsement of the Israeli government. The company offers water suppliers across the globe a solution for real-time water quality monitoring, preventing water pollution events and ensuring public health and safety.
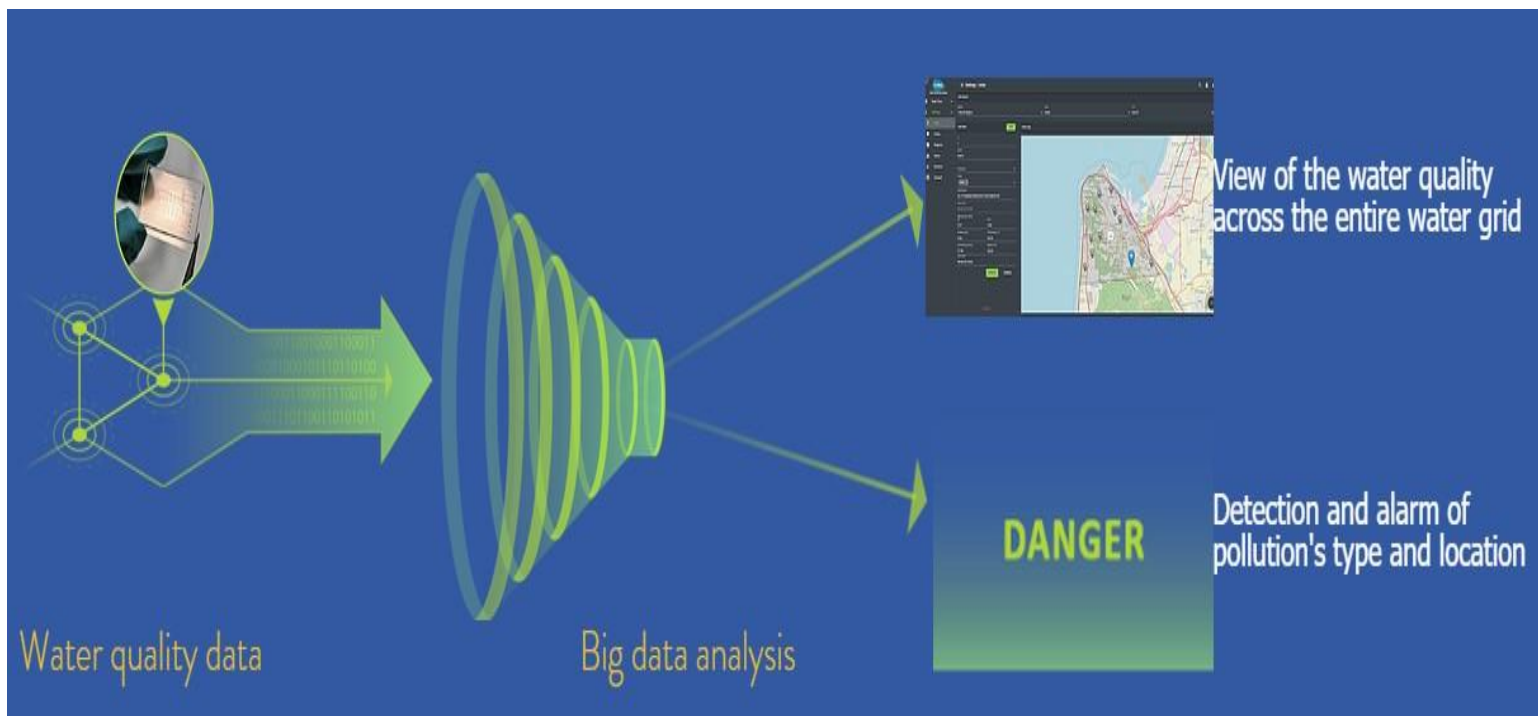
Elad Technologies (L.S.)

Metal Surface Preparation and Wastewater Treatment

www.eladtech.co.il

Category

Waste Water Treatment & Reuse

Short Description

Elad Technologies develops surface plating and cleaning technologies for the aviation, electronics, printed wiring board (PWB), and metals industries. Elad engineers chemicals and processes for preparing metal surfaces. Its solutions, developed and applied in partnership with Amza Technologies, are primarily used for cleaning and decorating various metals in industrial contexts. The company also cooperates with Amza on wastewater and air treatment, in particular to produce vacuum evaporation and mechanical vapor recompression technology to achieve zero liquid discharge (ZLD).

EZ PACK WATER

Water Storage, Distribution, and Purification Solutions

www.ezpackwater.com

Category

Water Management

Short Description

EZPack Water develops, manufactures, and markets proprietary solutions for water storage, distribution, and purification. Its solutions include EZPuro, a compact robotic water purification and desalination system; water storage, transportation, and distribution solutions based on the company's proprietary two-layer bladder technology; and EZCond, proprietary atmospheric water generator. The company's products are aimed at markets such as emergency use, disaster relief, firefighting, remote water supply, military, home and outdoor, and others.

Filtersafe

Water Filtration Solutions

www.filtersafe.net

Category

Filtration & Purification

Short Description

Filtersafe's goal is to filter the world's ballast water in order to protect the global marine environment. The company's ss filters remove particles down to 10 microns, with flow rates for single, highly configurable filters from 50 to 5,000 m³/hr. In addition to seawater filters for ballast water, Filtersafe has engineered filtration solutions for applications in the agriculture, desalination, industrial, and oil and gas sectors.

GAL MOBILE LTD.

Water Purification & Desalination Vehicle

https://www.galmobileamerica.com/en/home/

Category

Desalination & Brackish Water/ Filtration & Purification/ Water Emergency & Security

Short Description

The World's First Water Purification Vehicle, GALMOBILE™, it is one of its kind in all over the world, that produces clean water from any water source to supply to the masses within minutes.

The GALMOBILE™ can supply safe drinking water to the ones who don't have it. Our solution can reach and immediately affect remote areas, isolated areas without infrastructure and areas plagued by natural disasters.

An added benefits of the GALMOBILE™ are:

- Mobile, self- contained independent an automatic
- Produces high-quality water up to 140m3, 22,000 GPD, with the ability to increase the capacity
- Simplicity installation& operation- Deployment less than 30 minutes
- Compact and less weight for convenient mobilization- 1,100 ton
- 12V low voltage system – no high voltage or generator
- Transferability- All-terrain vehicle mobile system 4X4 Wheel drive

GES

Water Treatment Plant Design and Construction

www.ges.co.il/

Category

Developers/ Projects

Short Description

GES is an international leader in the design and construction of innovative sea water desalination and industrial and municipal water and wastewater treatment plants, as well as in the field of chemical production for industrial applications. GES implements innovative and flexible systems that optimize CAPEX and OPEX. GES' water and wastewater treatment and reclamation systems meet the customers' unique needs across a broad range of water applications ¾ seawater, brackish water, clear or contaminated river water, or grid water.

Hoffmann & Hoffmann

Control and Monitoring Instrumentation for the Water Market

www.hw-well.com

Category

Control & Communication

Short Description

Hoffmann & Hoffmann specializes in the development and manufacturing of control and monitoring solutions for the water market. The company's patented products are in use at more than 900 sites, including major water utilities, in the USA and the Middle East. Hoffmann & Hoffmann is an internationally focused water technology enterprise. The company works side by side with municipalities and water authorities, providing needed products and technologies in order to ensure an efficient use of water resources and a continuous supply of clean water. Hoffmann & Hoffmann products target industries including municipal water facilities, mining, and gas and oil.

IDE

Water-treatment Solutions for Municipal and Industrial Applications

www.ide-tech.com

Category

Developers/ Projects

Short Description

IDE Technologies specializes in the development, engineering, construction, and operation of enhanced small to mega-sized seawater and brackish-water desalination solutions, industrial water treatment, and water reuse solutions. IDE has completed multiple large-scale membrane and thermal desalination projects and provides high-quality water to a wide range of customers, including municipalities, refineries, and power stations, as well as customers in the mining, oil, and gas industries.

Iosight

Data Management and Analytics for the Water and Energy Sectors

www.iosight.com

Category

Water Management

Short Description

IOSight is a leading provider of data management and analytics for water utilities. We have over 100 installations worldwide. Our solutions include the iGreen best-in-class data management and BI platform and a suite of advanced analytics (AI/ML) modules for surface water quality monitoring, optimization of water and wastewater treatment plants, water supply network optimization, NRW in distribution systems, and early fault detection.

Ipipe

Water Pipelines Inspection System

www.ipipe-tec.com
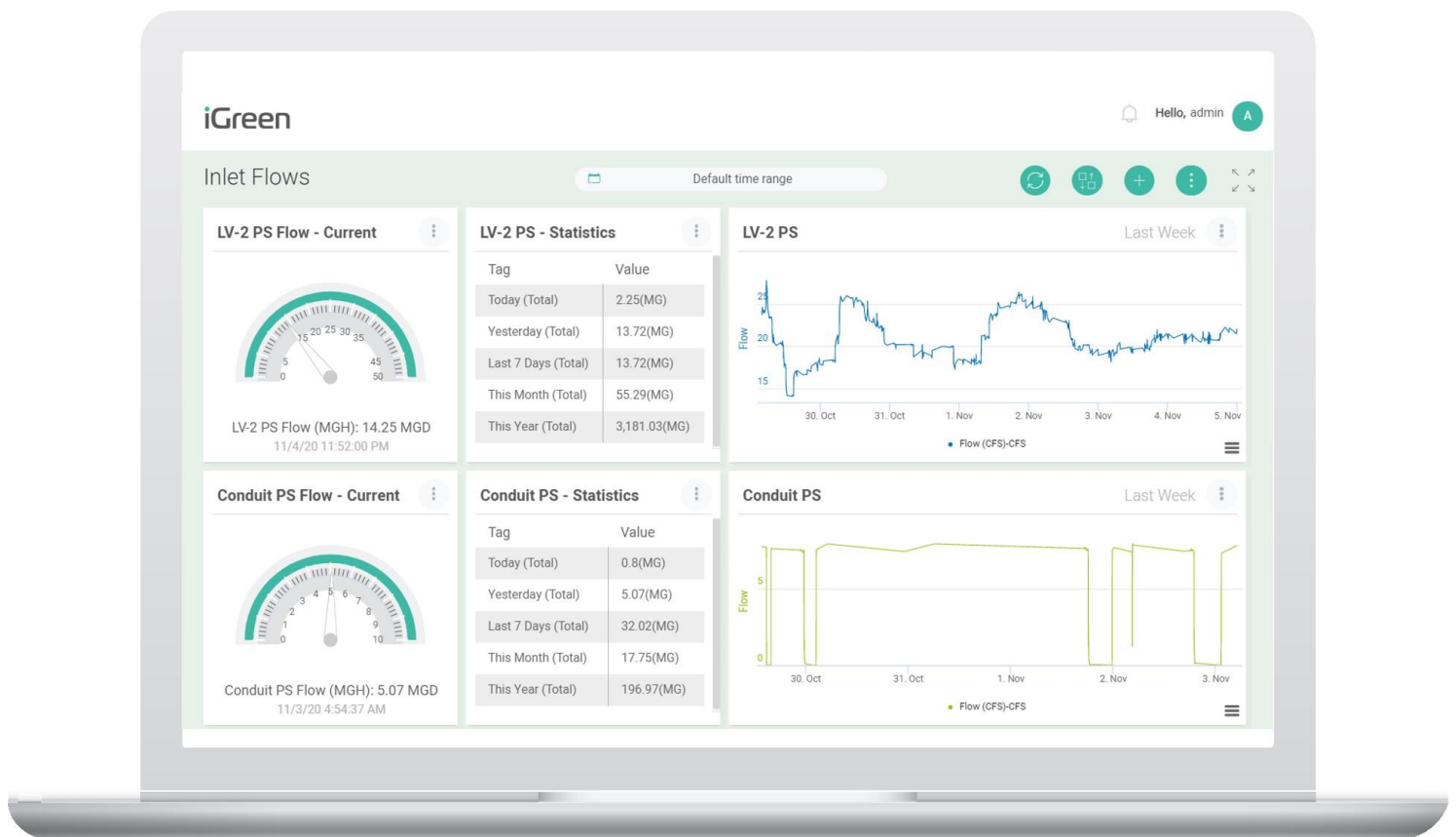
Category

Leak Detection

Short Description

iPIPE is developing a system that autonomously performs visual, audio, electro-magnetic, and ultrasonic inspection of active water pipe networks. The system inspects from inside the pipes, providing valuable operational information regarding pipe corrosion before pipe rupture, pirate connections, and other hazardous malfunctions developing inside the pipes.

iPIPE's technology provides a complete network survey, pinpointing the exact location of existing or developing malfunctions, facilitating efficient, cost-effective maintenance of the water network.
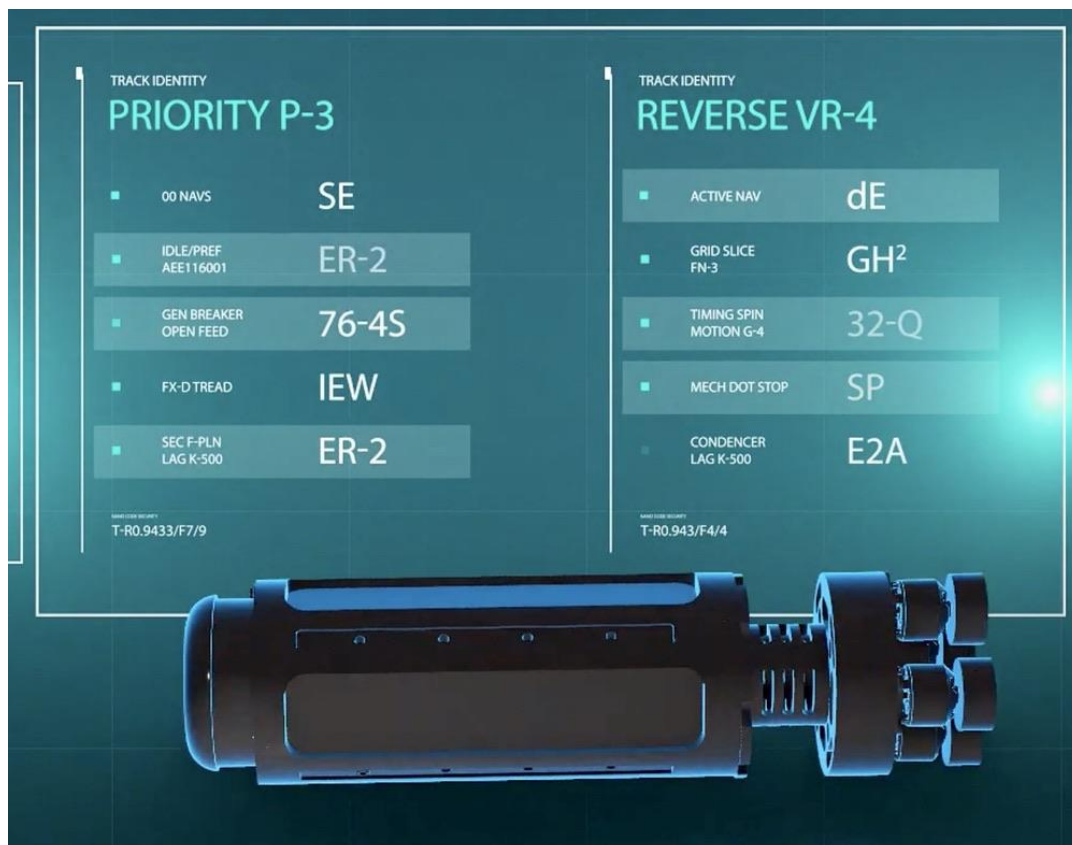
IXDen

Autonomous Software for OT failure prediction & edge devices cyber security

www.company.com

Category

Control & Communication

Short Description

IXDen, founded in 2018, is a fast-growing company aimed at reshaping the operation of the OT teams in water and other target industries. IXDen is introducing innovative AI-based prediction of equipment and process malfunctions, and achieving data integrity on a sensor level and at-the-source threat detection. **IXDen** creates the first-ever autonomous biometric end device identity, to detect abnormal behaviour and security events in equipment, processes, controllers, RTU's PLCs and sensors. The patented technology merges machine learning, artificial intelligence, deep learning and real-time optimisation technologies. The system is implementing in Mekorot.
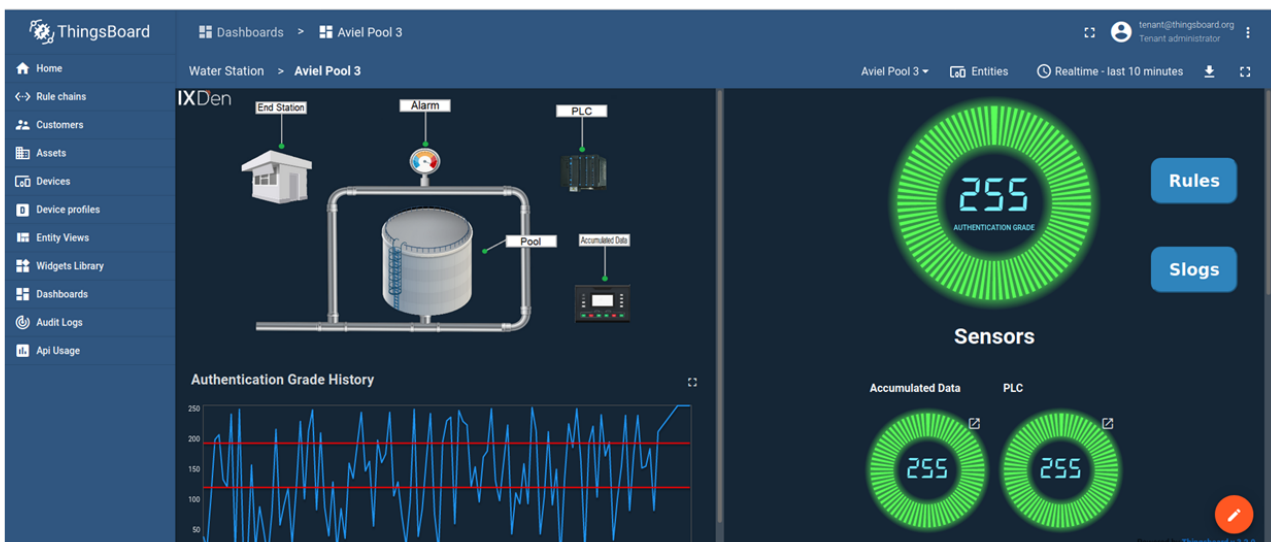
Kando Environmental services
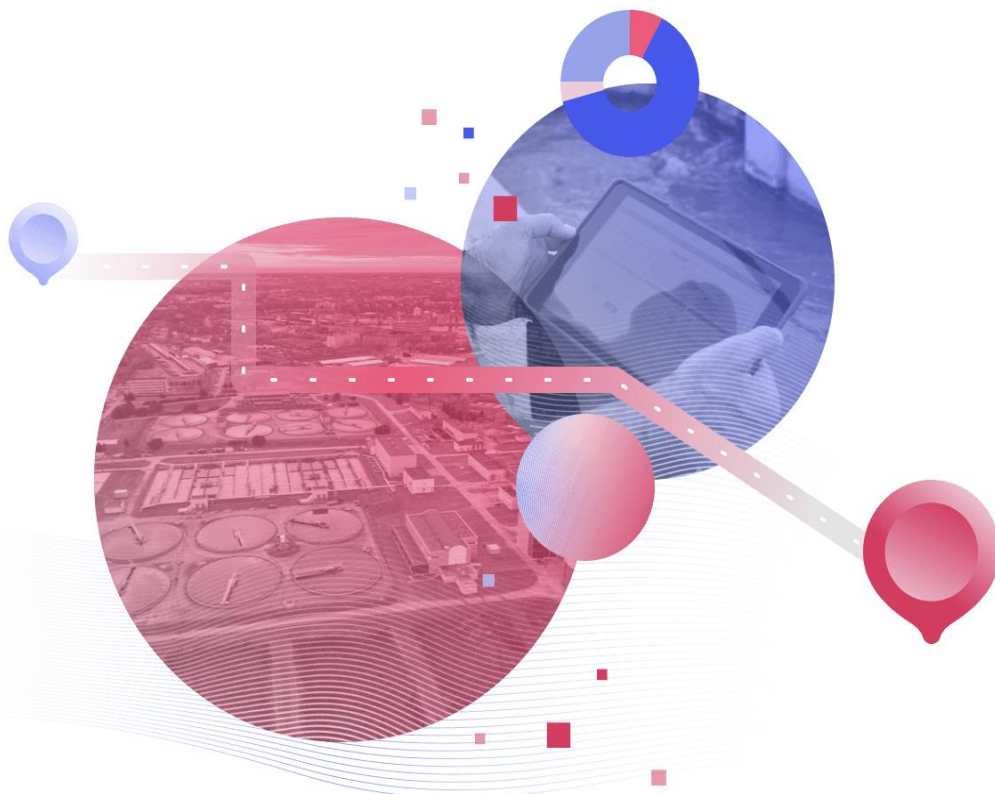

Wastewater Management Solutions

www.kando.eco

Category

Water Management

Short Description

Kando is a wastewater intelligence big data solution provider that uses original algorithms and artificial intelligence to enable utilities and municipalities to protect public health and the environment. The technology allows to gain insights and control over the wastewater networks by detecting anomalies and public health threats, track to their source and communicating their impact in real-time. Keeping the world's sewage systems hygienic and high-functioning, Kando helps save economic and environmental resources while bolstering public health.

Laguna Innovation

Rethinking Wastewater Treatment and Reuse for Off the Grid Conditions

www.lagunareuse.com

Category

WW & Reuse/ Water Emergency & Security/ Water Management

Short Description

Laguna's WASH solution is a paradigm shift in decentralized wastewater reuse due to its patented Vertical Green Wall biofilter and efficient pre-treatment technology that eliminates sludge and produces recycled water, suitable and safe for reuse in irrigation. Laguna's modular and scalable wastewater reuse system ensures 24/7 wastewater treatment & irrigation and, together with remote and online monitoring & operation, serves as the optimal sanitation & irrigation solution for off-grid and decentralized locations.

Lishtot

Rapid Detection of Contaminants in Drinking Water

www.lishtot.com

Category

Water Emergency & Security

Short Description

TestDrop is the first and only non-contact, hand-held, instant result water quality sensor on the market today. Based on a patented and validated technology tested by leading institutions and laboratories and used by thousands of users around the world, TestDrop offers an answer to the vexing question of our generation: "Is this water safe to drink?"LIshtot's sensors test the water and upload the data to the global water quality map.

Maagan Filtration

**Industrial Water Filters**

https://www.maaganfiltration.com/

Category

Filtration & Purification

Short Description

Maagan Filtration was established by Kibbutz Maagan Michael for the purpose of developing an innovative industrial water filter with automatic self-cleaning for fine filtration in the range of 1 to 10 microns. Maagan Filtration's Sheaf Filter combines the two major filtration methods, physical filtration and depth filtration, to achieve filtration down to 1 micron. The company's technology directs contaminated water flow lengthwise along the threads rather than crosswise in order to achieve operational efficiency, energy reduction, and minimal environmental impact.
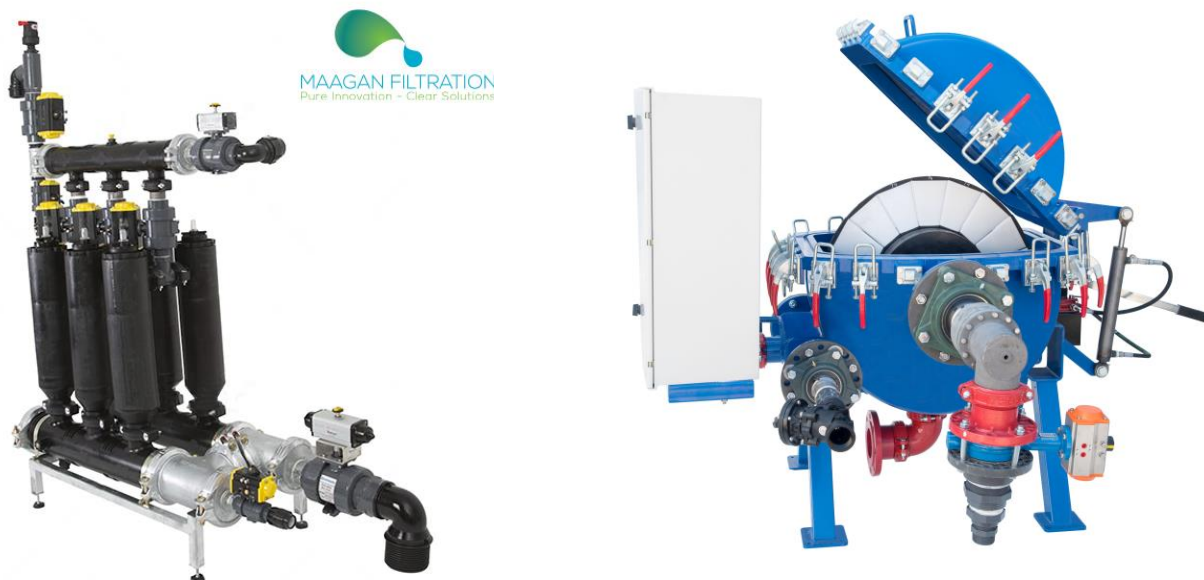
Mapal Aeration Solutions

Wastewater Treatment

www.mapal-ge.com

Category

Waste Water Treatment & Reuse

Short Description

Mapal designs, manufactures, and supplies, custom made floating/stationary, fully retrievable, Fine Bubble modular aeration systems for industrial & municipal reactors and lagoons of any type, shape, and size. Our Fine Bubble aeration units are constructed from stainless steel, making them extremely robust. Our units can be installed for supplemental oxygen or for upgrades in existing reactors and lagoons, or as a complete solution in new builds. Due to their unique design, the units are installed in live aeration basins, with the use of a crane, this means there is no need to drain the aeration basin, stop the biological process, or for people to enter the wastewater. The aeration units can be purchased or rented, as per the customer's needs.
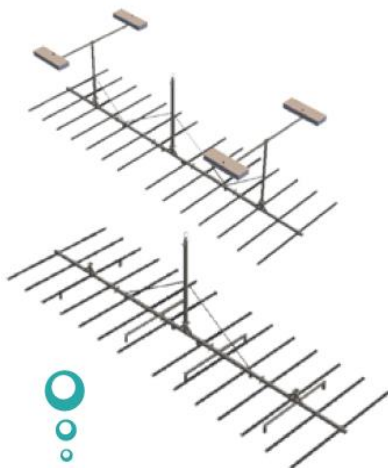
FFBA & RFBA Grid Unit

- Retrievable floating / non-floating
- Mapal SS diffuser
- Air Flow rate- up to 1000 Nm³/hr
- Robust structure
- Excellent floor coverage

FFBA-Oval unit

- Floating and Retrievable
- Mapal Spiral diffuser
- Air Flow rate- up to 500 Nm³/hr
- Low cost

Airlift Purge System

Each aeration unit has its own airlift purge system to remove condensation and liquids that may have entered the piping system

# Neotop water systems

Floating Ball System to Reduce Evaporation

www.neotopwater.com

Category

Water Management

Short Description

NeoTop Water Systems manufactures modular covers for water reservoirs that are designed to work in harmony with the environment. The company's solution is a sphere that fills halfway when released into water. NeoTop's aim is to decrease evaporation from reservoirs, saving water while also preserving its quality. The company's technology has undergone extensive testing and is also applicable to fields including fish farming, aquariums, and microalgae cultivation.
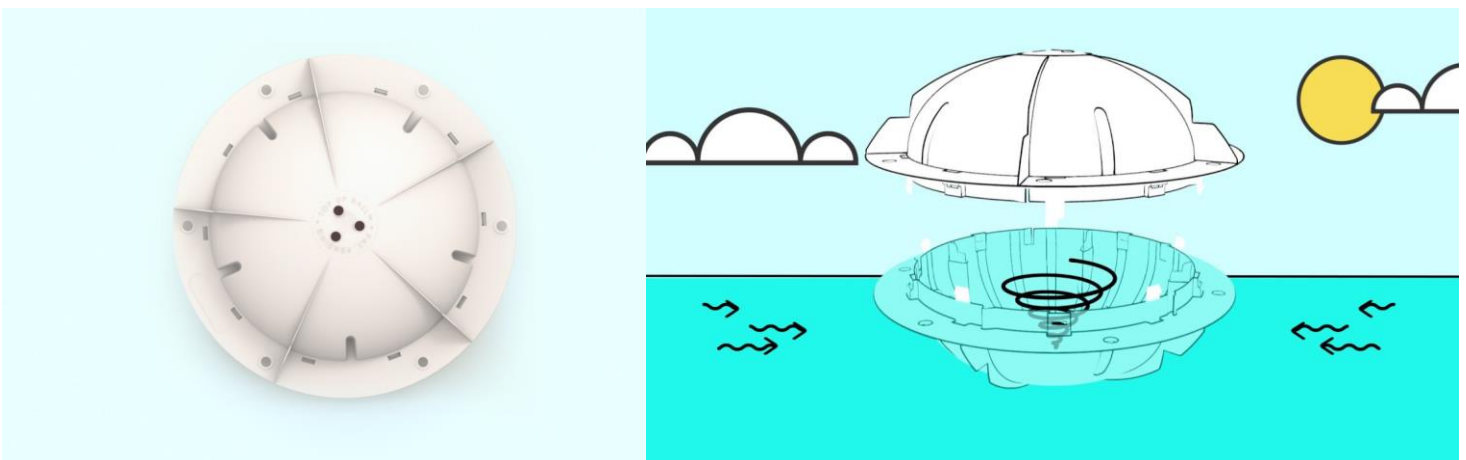
Nufiltration

**Recycled Medical Filtration Devices for Water Treatment**

www.nufiltration.com

Category

Waste Water Treatment & Reuse

Short Description

NUFiltration designs, manufactures, and distributes water and wastewater treatment systems based on its patented NUF technology. NUFiltration systems are used in greenhouses and hydroponics to recycle drain water by removing all pathogens, viruses, colloidal matter, and other microbiological pollutants while leaving salt and micronutrient levels unchanged. The company's filtration units, which function without electricity, are simple, compact, and robust mini-systems that can produce pure drinking water from contaminated sources under very difficult conditions. The NUF units can also be used to clean swimming pools.
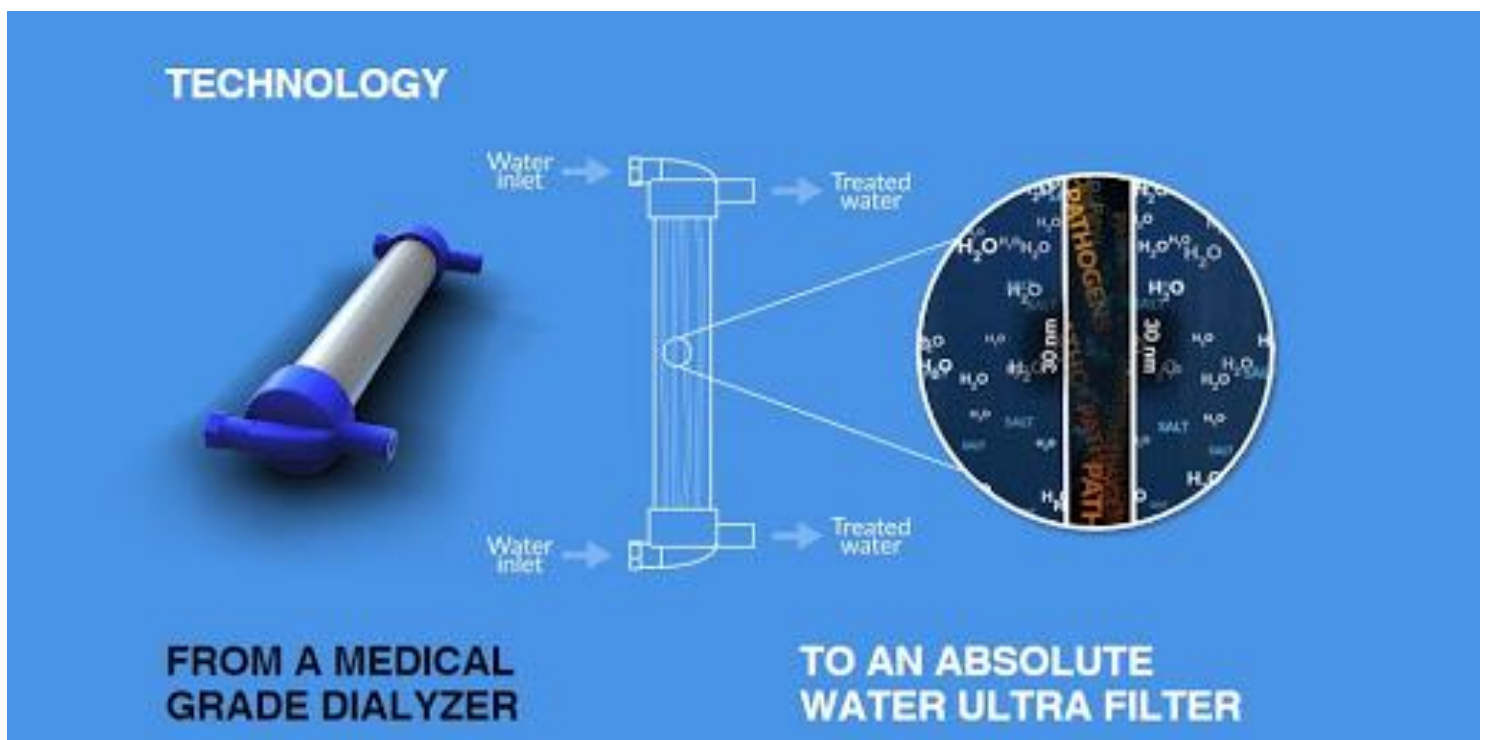
Odis

Water and Wastewater Treatment Plants

www.odisfiltering.com

Category

Waste Water Treatment & Reuse

Short Description

Odis Filtering designs, manufactures, installs, and commissions water and wastewater treatment plants. Its custom-made solutions consider the technical and economic needs of each customer to provide the most efficient solution. The company creates solutions for wastewater treatment, drinking water, industrial process water, emergency and relief water, and greywater recycling. Odis is active in the international market through its subsidiary companies, distributors, and representatives.

Ofra-Aqua Plants Ltd

Ecologic Water and Wastewater Purification Systems

www.ofra-aqua.co.il

Category

Domestic

Short Description

Ofra Aqua Plants develops solutions in the fields of water ecology, aquatic plants, and phytotechnologies. The company specializes in different implementations of phytoremediation, such as constructed wetlands and decorative ponds, for wastewater, river and lake management, public ponds, polluted wells, industry and agriculture, and the purification of water for swimming pools. Ofra Aqua Plants has designed and built constructed wetlands for municipal wastewater treatment, gas stations, military facilities, dairy farms, slaughterhouses, fish farms, landfill leachates, cosmetic factories, and river rehabilitation projects.

P2W

Chemical-free Method of Water Treatment for the Mining Industry

www.p2w.co

Category

Waste Water Treatment & Reuse

Short Description

P2W (Pollution to Water) is a water treatment company that specializes in treating industrial wastewater from the gold, coal, and heavy metal mining sectors for sulfate reduction and the full destruction of cyanides without the use of membranes or chemicals in the treatment process. P2W also provides potable and clean water for communities and municipalities.

Purammon

Electro-chemical Technology and System for Ammonia Removal from Wastewater

www.purammon.com

Category

Waste Water Treatment & Reuse

Short Description

Purammon is focused on the research, development, design, and implementation of physico-chemical wastewater treatment processes and systems, with special emphasis on ammonia, total nitrogen, and total organic carbon removal. The Purammon solution is based on an innovative and proprietary electrochemical reactor. The reactor contains specialized electrochemical cells that disaggregate the target pollutant into its harmless constituents.

QWater Solution

Providing sustainable and environmentally sound solutions to water scarce regions

www.questwatersolutions.com

Category

Filtration & Purification

Short Description

Quest Water Solutions is an innovative water technology company that provides sustainable and environmentally sound solutions to meet the growing global demand for fresh water. It uses proven technologies to create economically viable products that address the critical shortage of clean water in water-scarce regions and developing countries. Quest's goal is to address the vital issue of water quality and water supply by providing an alternative, sustainable source of pure water at the smallest possible environmental cost, while becoming a leading provider of decentralized, turn-key solutions using alternative energy for the production, purification, desalination, and distribution of clean, potable water.

R2 Wireless

Smart and Affordable Perimeter Protection

https://r2-wireless.com

Category
Water Emergency & Security

Short Description
R2 developed smart and affordable perimeter protection against intruders such as drones or people. Even minor damage caused by malicious behaviour, not to mention terrorism, may have negative consequences for public safety and security, the well-being of its citizens and their quality of life. By deploying R2's sensors, the system passively receives the radio waves. The AI-based system provides situational awareness and actionable insights on threats that are coming from the wireless devices (e.g., drone, cellular, Bluetooth, wifi) or the people who carry them. R2's solution is up to 10 times more accurate and cost up to 20 times less compared to the existing solutions, while operating passively and is immune from false alarms. The system also works well in nighttime, low visibility scenario and challenging weather (e.g., dust, rain, fog, snow).
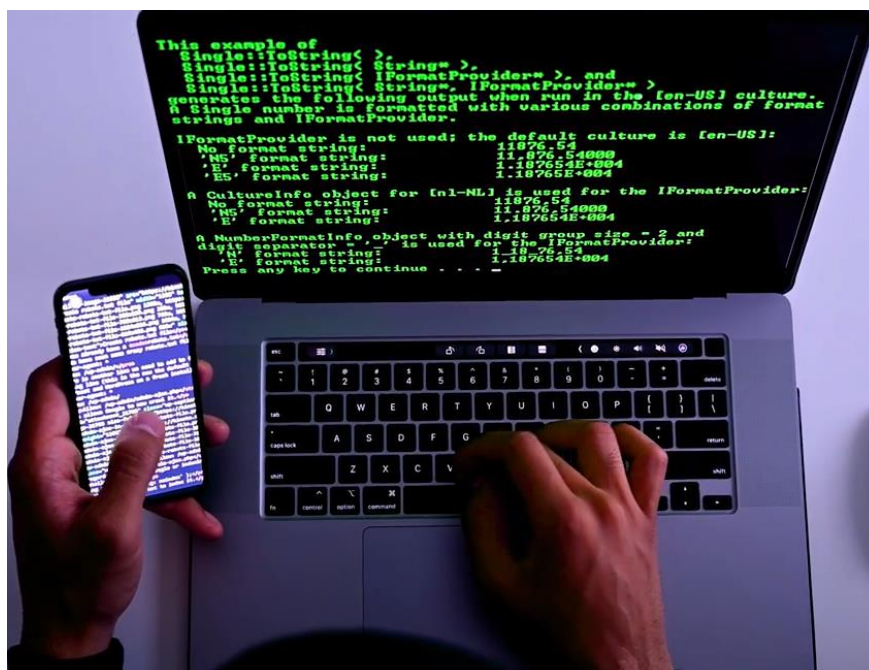
ROTEC

**Mineral Scaling Management in Desalination Plants**

www.wfi-water.com

Category

Desalination & Brackish Water, General Water & Wastewater Treatment

Short Description

ROTEC is a fully integrated water treatment engineering firm specializing in reverse osmosis (RO) systems. The company has built numerous projects around the world with major municipal and industrial clients. ROTEC's proprietary Flow Reversal Reverse Osmosis (FR-RO) technology enables high-recovery RO without exposing plants to the hazards of scaling. Its approach maximizes recovery rates to generate more clean water, utilize less raw water, and reduce brine volumes dramatically. FR-RO also minimizes OPEX, chemical use and cleaning events, leading to a substantially more sustainable and eco-friendly water treatment approach. ROTEC provides turnkey solutions including new RO plants, brine concentrators, and pre- and post-treatment systems. Unique in the water industry, the company is also active in retrofitting RO treatment plants by applying FR-RO in existing configurations.
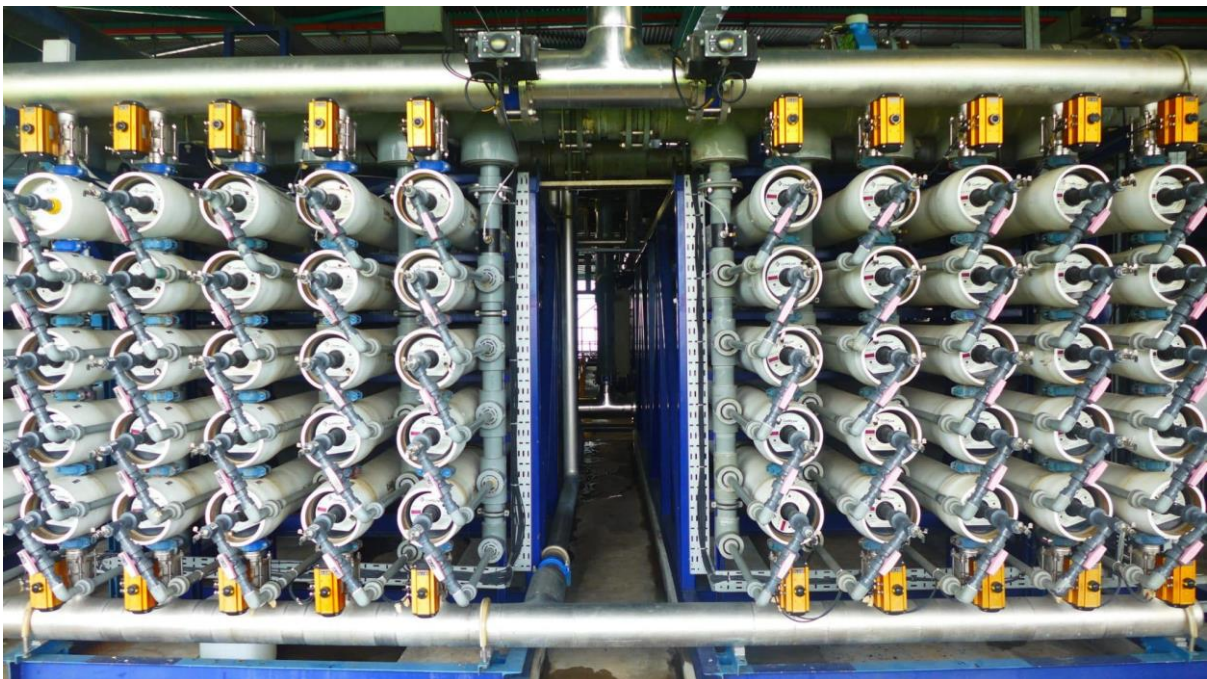
Rplace

Rplace aims to accelerate Constructed Wetlands as a Nature Based Solution for water purification and climate change by a Machine Learning Constructed Wetland Platform

www.r-places.com

Category

Filtration & Purification/ Measurement & Analysis / Water Emergency & Security

Short Description

Rplace's ML Constructed Wetland Platform will: Prevent wastewater pollution by accelerating constructed wetland; Reduce carbon from the atmosphere and create carbon credits for the global market; Turn back wastewater into fresh water for irrigation and nature; Help clean groundwater, water reservoirs, rivers and lakes; Help control floods; Help enhance biodiversity, restore ecosystems and; create highly attractive recreational and educational site.

Rplace's platform will help projects' developers, sellers and buyers, to predict, assess, prove and ensure the feasibility, efficiency and durability of their Constructed Wetlands (CW) projects. It will collect and analyze data from the most accurate and cost-effective monitoring systems in order to produce credible report and successfully verify and certify the carbon credits of the CW.

Takadu

Central Event Management for the Water Industry
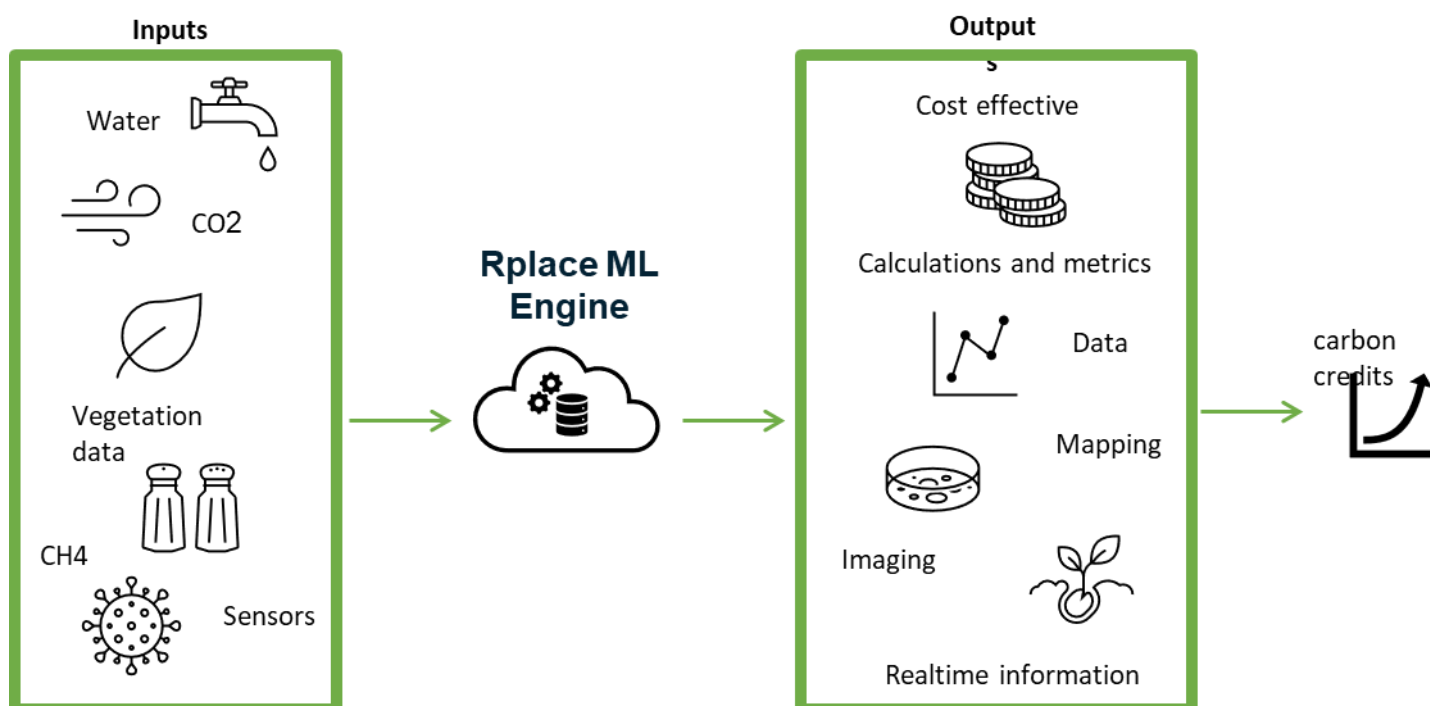
www.takadu.com

Category

Measurement & Analyzing

Short Description

Reduce water loss and improve operational efficiency and customer service with a single software solution that leverages all your different data sources and delivers actionable insights across your organization. TaKaDu Central Event Management (CEM) empowers water utilities to manage their networks proactively and efficiently, resulting in dramatically lower NRW, improved service continuity and lower costs.
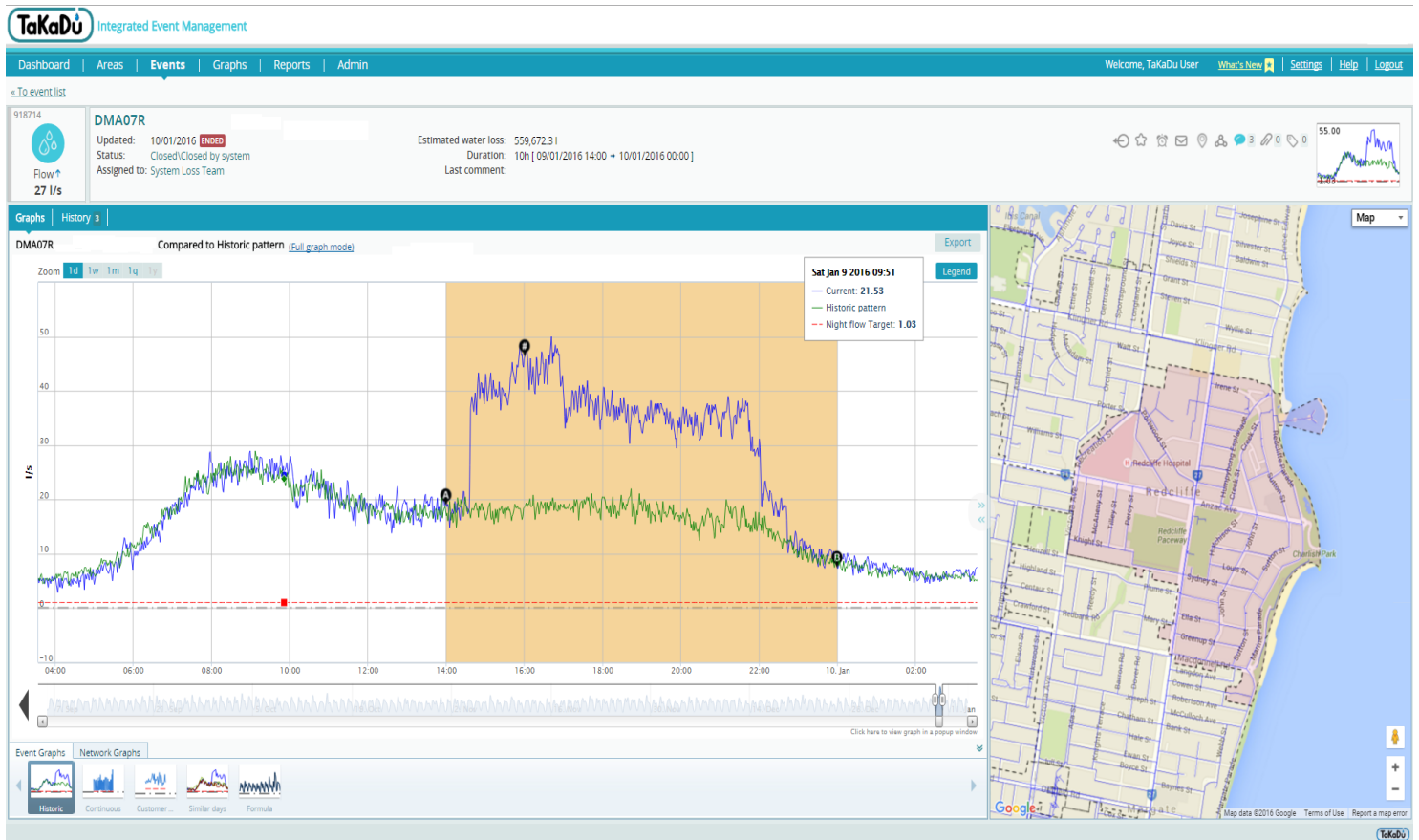
Tamuz Electronics Ltd

Highly efficient Solar Systems for Outdoor water devices

https://tamuz-ele.com

Category

Water Management

Short Description

Tamuz Solar Technologies develops renewable energy harvesting technologies which provides the power to maintain remote off-grid systems, including irrigation, measuring, sewage flow, wireless weather stations, water purification sensors and filtering systems. The green, tailor-made energy solutions are designed to provide the users with a sustainable energy supply for many years. The device is made to be installed in the field at remote locations, allowing for minimum maintenance and maximum reliability. The major attributes is: Maintenance free & Safe operation, Long system lifetime-5 years and more. All-in-One and Flat compact design that blends into the environment. .

Tethys Solar Desalination

Solar-powered Desalination and Water Treatment Plants

www.tethysdesal.com

Category

Desalination & Brackish Water

Short Description

Tethys Solar Desalination (TSD) specializes in the rapid construction and deployment of desalination and water-treatment modular plants powered entirely by solar energy. TSD's design and reliance on solar energy eliminate most infrastructure, energy, and environmental concerns associated with the desalination process, with no need for electricity.
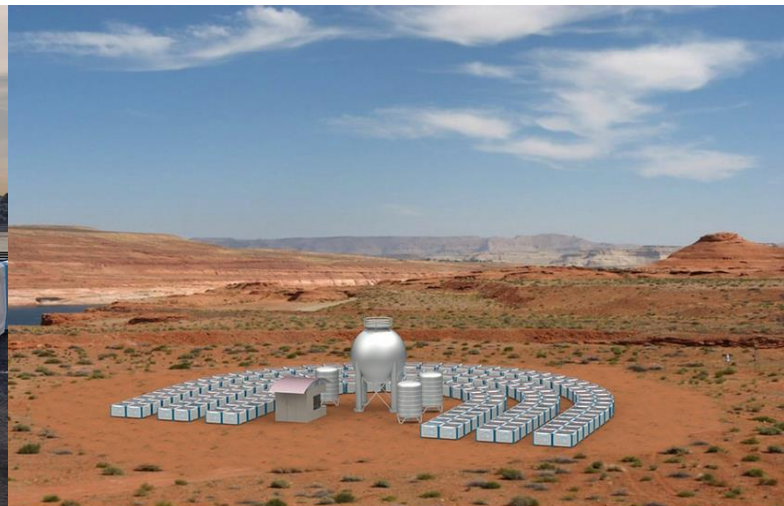
Toxsorb

Selective Removal of Pollutants from Water and Wastewater

www.wfi-water.com/group/toxsorb

Category

Waste Water Treatment & Reuse

Short Description

ToxSorb is a water technology company specializing in the design, construction, and operation of customized filtration systems using its proprietary Modified Activated Carbon (MAC) media, which is engineered to remove specific contaminants from water. ToxSorb customizes each solution to the unique water chemistry and effluent needs of the client. MAC is a chemical modification of traditional activated carbon, enabling the removal of a wide range of inorganic pollutants while maintaining its original absorption capability for organic pollutants.

Triple T

High-performance Wastewater Treatment

www.triple-treatment.com

Category

Waste Water Treatment & Reuse

Short Description

Triple-T specializes in the design, construction, and operation of wastewater treatment plants. The company's patented TAYA technology achieves high-performance wastewater treatment at a low operational cost. TAYA wetlands have been successfully implemented in a number of agricultural and industrial wastewater systems and have proven effective in treating wastewater with high loads of organic matter and ammonia.
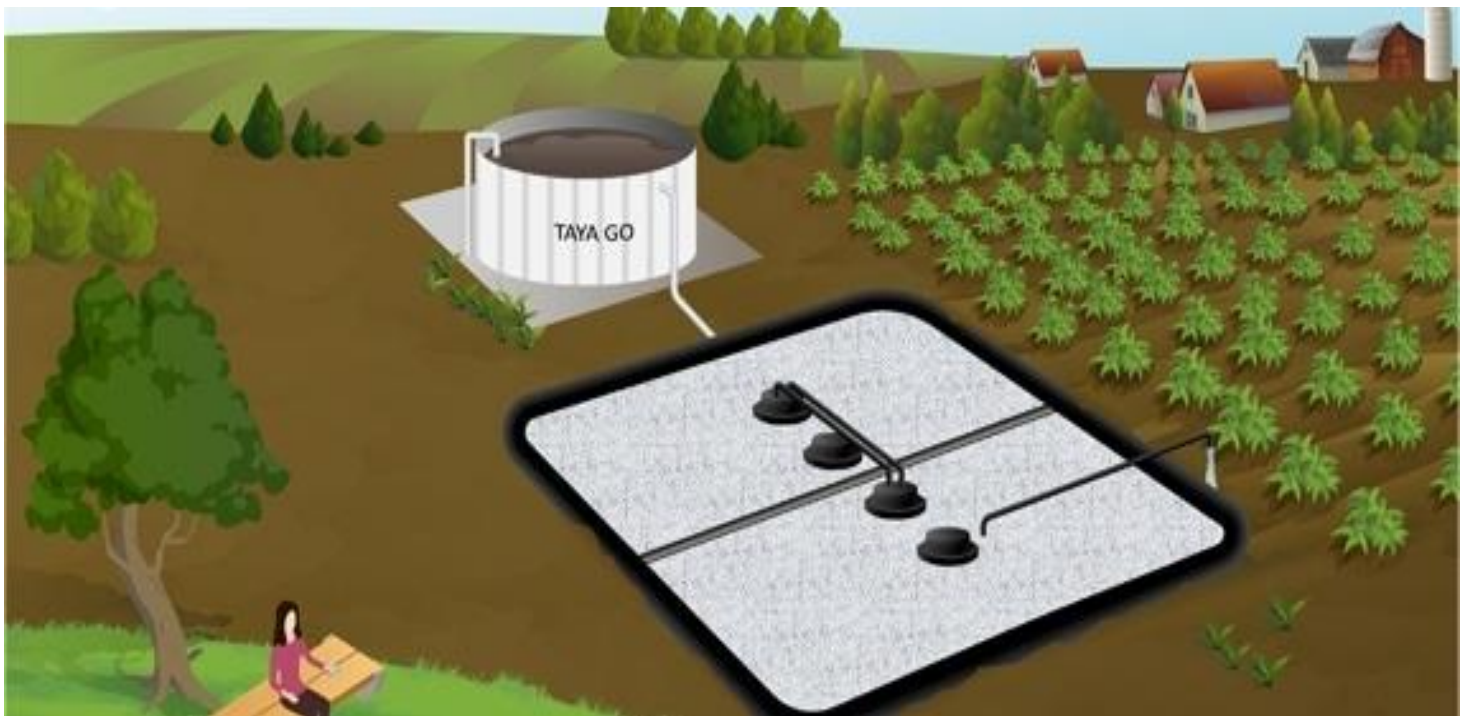
Turbulent Technologies

Large-scale Liquid Mixing and Separation Systems

www.turbulent-tech.com

Category

Filtration & Purification

Short Description

Turbulent Technologies specializes in liquid/liquid emulsion separation and the removal of toxins and contaminants from liquids using turbulent mixers. Operating at the confluence of hydrodynamics, physics, and chemistry, the company's patented Turbulent Mixing technology has been widely applied in industrial plants. Turbulent Mixing augments conventional solutions to improve the mixing and separation of liquid/liquid emulsions, even in the presence of solid contaminants. It is applicable to a wide range of processes in the energy, petroleum, chemical, mining, food oils, and pharmaceutical industries.

Vbact

**Automated Systems for Detecting Bacteria in Water**

Category

Water Management

Short Description

VBact develops and manufactures novel and patented "Direct Imaging" based real-time, automated, continuous systems for detection and enumeration of bacteria and micro-particles in water. VBact product line is called "Bacterial Water Scanner". The Scanner has many unique features: in-line sampling configuration; fully automated operation; 24/7 continuous monitoring - avoiding sampling gaps; reagent-free analysis; and real time alerts.
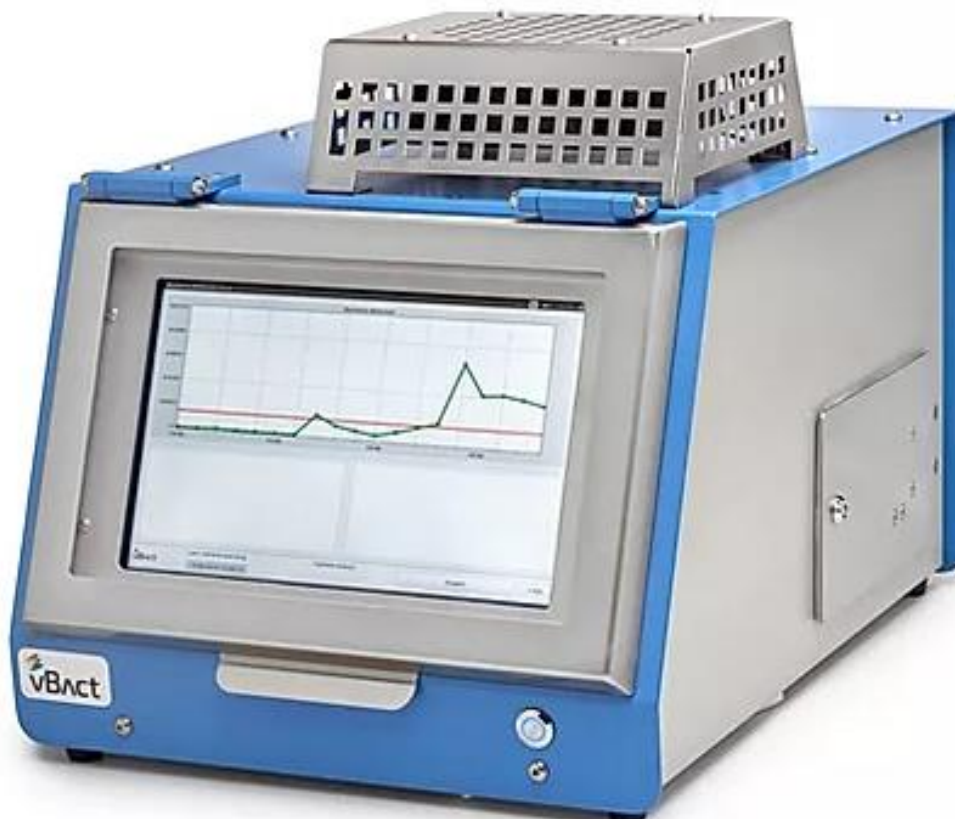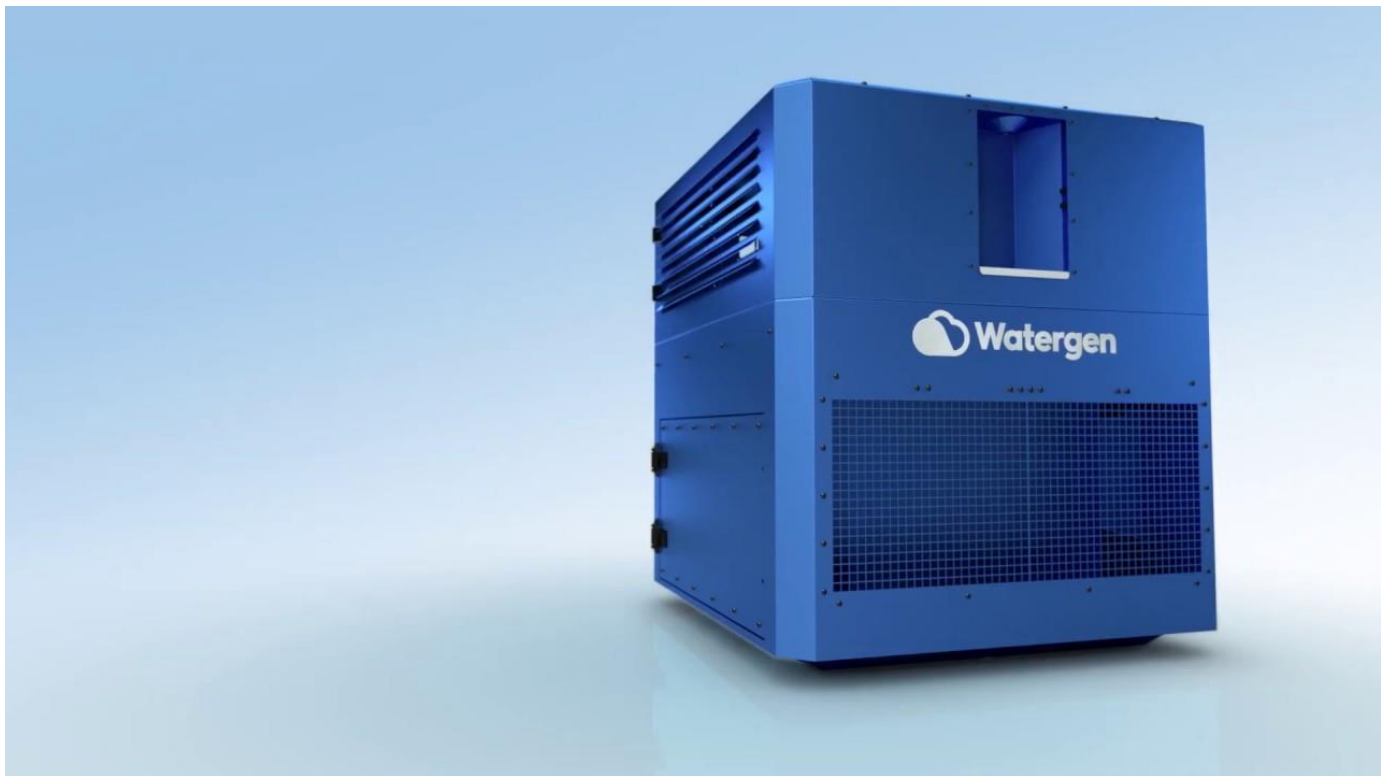
WaterGen

Atmospheric Water Generator

www.watergen.com

Category

Water Emergency & Security

Short Description

Watergen is a pioneering Israeli company that has become the global leader in the atmospheric drinking water devices (AWG) market, that create drinking water from the humidity in the air. The company's solutions are among the most effective and economical to solve the pressing issue of drinking water scarcity in any location. Watergen's game-changing water-from-air solution is based on its proprietary, patented GENius technology.

Watersight

Water Monitoring, anywhere anytime

https://watersight.ai/

Category

Desalination & Brackish Water/ Measurement & Analysis / WW & Reuse/ Water Emergency & Security/ Water Management

Description

Watersight's AquaRing is an artificial intelligence-backed spectrometer on a chip solution for sensing water quality, safety, and security. The AquaRing is based on a patented, low-cost CMOS chip technology that measures the concentration of a certain water quality indicator, process control value or formulation, to name a few. The AquaRing device is a small, full IoT device, that can be easily installed in the process of an industrial and urban setting. Having numerous, low-cost AI-powered eyes in the process flow can be an invaluable addition to decision-makers, saving time, money, and energy. Watersight manufactures the sensor hardware and creates the analytical software, which enables customized and adaptive solutions.

Water Flow-Tech

**IoT solution for monitoring water consumption, and detecting leakages.**

www.wft.co.il

Category

Leak Detection

Short Description

Water Flow-Tech is an Israeli technology company that develops worldwide-patented innovative controllers, which revolutionize flow-metering functionality at low water flows, detect low flows leaks and alerts in real time, solve Non Revenue Water problem, save water Loss and energy. We do smart water IoT technology for Smart Cities and utilities.

Wint

Enterprise-grade Water Management and Control Solutions

www.wint.ai/
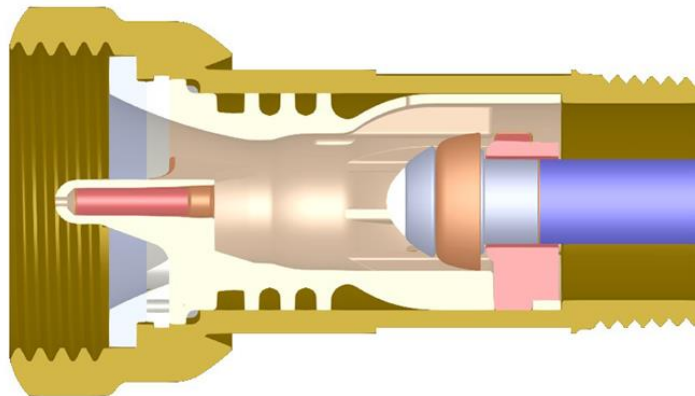
Category

Measurement & Analyzing

Short Description

WINT delivers water intelligence solutions with the aim of allowing enterprises to manage their water effectively so they can reduce consumption, eliminate waste, prevent water leak damage, and reduce their environmental footprint. WINT utilizes the power of artificial intelligence, signal processing, auto-shutoff valves, and IoT technologies. The company's solutions monitor water flows to detect anomalies, leaks, and waste and to deliver real-time insights and alerts when issues are detected.