

# waterproof

Water Alliance magazine

#1, 2026

*met de zomer-editie  
vind ik dit wel een leuke.  
MAAR: heb jij hier de  
rechten van gekocht Jan  
Robert?*

**AZZURO:  
INNOVATIVE AND  
SUSTAINABLE  
SOLUTIONS**

**THE PORTABLE  
MIZU SENSOR**

**DUTCH WATER  
TECHNOLOGY TAKES  
CENTER STAGE  
IN VALENCIA**

**INTERVIEW  
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MEIKE VAN GINNEKEN**

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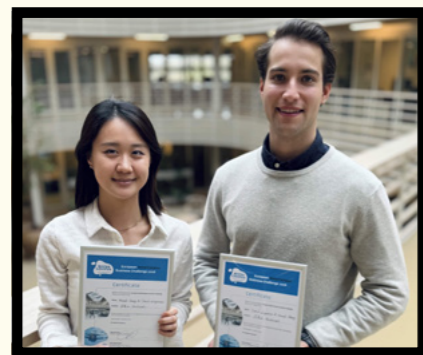


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WaterProof is the magazine of the Water Alliance, a partnership between government, research institutions and industry in the field of innovative and sustainable water technology. From its base, the WaterCampus in Leeuwarden, the Water Alliance builds on the 'water technology innovation chain'; a process whereby new ideas from universities, laboratories and test sites are converted into worldwide marketable products. WaterProof provides regional, national and global information on developments, results and background in the field of water technology.



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deze mag er nu  
eerst wel uit.  
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## WATER ENTREPRENEURS OF ALL COUNTRIES — UNITE!

**G**eopolitically speaking, these are turbulent times. Anyone following the news could almost forget that, alongside wars and conflicts, humanity is also facing other existential challenges. One of them is the smarter management of the world's scarce freshwater resources. At Water Alliance, we do our best to contribute to that challenge, working along several strategic lines.

First and foremost, we support knowledge development within the Dutch water technology sector. The more than two hundred members of our network, together with ten expert groups, form the very foundation of this effort. At the same time, our close involvement in the innovation ecosystem of WaterCampus Leeuwarden plays an important role in strengthening this knowledge base.

Another key focus is matchmaking, both nationally and internationally. We connect companies with end users and regularly involve suppliers as well. This takes place not only in the Netherlands but far beyond, supported by the strong relationships we maintain with cluster organisations and government partners in various parts of the world.

Alongside these activities, there is another pillar that perhaps receives a little less attention, but deserves to be highlighted: strengthening entrepreneurship within the sector. Many exceptionally bright people are developing groundbreaking ideas, yet they may need support when taking their first steps into the world of business. Our network plays an important role here, helping us identify these individuals – often young companies – and assist them in moving forward.

One of the initiatives we use for this purpose is the WaterCampus Business Challenge. During this annual event, researchers and start-ups are immersed for a week in workshops, training sessions, pitching opportunities and

networking moments. By the end of the week, participants often approach entrepreneurship with a different – more mature – perspective. What strikes us time and again is that events like this bring together companies that may well shape the world of tomorrow.

That is precisely why, in this edition, we are honouring them with a special section that shines a spotlight on the 2026 cohort. It was inspiring for us to get to know these companies – both Dutch and international – and we hope readers will feel the same sense of inspiration while reading this issue.

It is valuable for Dutch companies to connect with international peers at such an early stage. After all, we are all facing the same global challenges: water scarcity, water pollution and the growing realisation that many solutions can actually be found in water itself. In this context, knowledge is power. So, especially in times of geopolitical tension and division across the world, I would like to say: water entrepreneurs of all countries – unite!

**Hein Molenkamp**

*Managing Director,  
Water Alliance*



Photo: Marcel J. de Jong

*'the EWTW  
has built a  
reputation as  
a place where  
science and  
practice  
meet'*



## DIARY DATE: EUROPEAN WATER TECHNOLOGY WEEK 2026

**R**eaders of WaterProof might want to reach for their diaries. From 26 to 28 October 2026, the city of Leeuwarden will host the fourth edition of the European Water Technology Week (EWTW). Scientists, entrepreneurs, policymakers and investors from around the world will gather to exchange knowledge, forge new partnerships and help push innovation in water technology forward.

Held every two years, the event has built a reputation as a place where science and practice meet. Researchers present the latest insights from laboratories and field studies, while companies and investors explore how those ideas might translate into real-world applications and viable business opportunities. The aim is simple but ambitious: to narrow the gap between research, innovation and solutions that can actually be deployed in the water sector.

This year's programme covers a broad range of themes. Among them is the growing role of artificial intelligence and machine learning in the management of drinking water distribution networks – an area where digital technologies are rapidly changing how systems are monitored

and optimised. Another topic high on the agenda is the recovery of carbon from wastewater, reflecting the sector's increasing focus on circular economy principles and resource recovery. Elsewhere, sessions will explore the implications of new European regulations for water technology companies and the wider sector. There will also be discussions on restoring natural water cycles – an issue gaining urgency as climate change and environmental pressures continue to reshape water management across Europe and beyond.

### Programme

The week combines plenary lectures with interactive sessions, site visits and plenty of opportunities for networking. Among the speakers are international experts such as Christopher Gasson

and Paul O'Callaghan, who will offer perspectives on global developments in the water market and the direction the sector may be heading.

During the week, the WIS Award will also be presented (see elsewhere in this issue, ed.). The event's exhibition floor will bring together technology companies, start-ups, research institutes and investors – providing a lively meeting place for new ideas, products and collaborations.

The well-known annual congress of Wetsus is fully integrated into the programme, alongside business activities organised by Water Alliance and applied science sessions hosted by CEW.



FOR THE FULL PROGRAMME AND  
REGISTRATION DETAILS, VISIT  
[EUROPEANWATERTECHWEEK.EU](https://EUROPEANWATERTECHWEEK.EU)



*'WaterCampus  
provides direct  
access to research  
facilities, investors  
and customers  
— crucial for  
accelerating  
impact'*

Jose Porro, CEO of  
Cobalt Water Global  
at WaterCampus  
Leeuwarden

## TWO INTERNATIONAL WATERTECH COMPANIES ESTABLISH THEMSELVES AT WATERCAMPUS LEEUWARDEN

**T**wo international water technology companies have chosen to establish operations at WaterCampus Leeuwarden, reinforcing the Netherlands' reputation as a global leader in water innovation while strengthening the national economy with high-value expertise and investment. The US-based Cobalt Water Global and Latvia's Spectromarine both announced their arrival in late 2025. Their decisions highlight the continued international appeal of the Dutch water sector — and in particular the specialised ecosystem that has developed at WaterCampus Leeuwarden.

Spectromarine, led by CEO Girts Ozolins, has developed an advanced sensor to combat biofouling in water treatment plants, desalination facilities and fish farms. After more than 18 months of comparative international research, the company concluded that Leeuwarden offers the strongest concentration of water technology knowledge and partners in Europe. From this base, Spectromarine plans to scale its technology globally.

Cobalt Water Global, founded in Brooklyn in 2020, focuses on

reducing nitrous oxide emissions from wastewater treatment plants. Its N2ORisk DSS platform enables utilities to significantly curb greenhouse gas emissions. CEO Jose Porro describes WaterCampus as “a unique innovation system” providing direct access to research facilities, investors and customers — crucial for accelerating impact.

Reinder de Jong, project manager for internationalisation at the Northern Netherlands Development Agency (NOM), says the arrivals demonstrate

how targeted support can reinforce existing ecosystems. “Together with national partners, we actively seek out companies that complement and strengthen our innovation clusters. In water technology, WaterCampus Leeuwarden offers a truly distinctive environment — and these companies fit perfectly within it.”

Their establishment not only enriches the regional ecosystem, but also underlines the Netherlands' ability to attract knowledge-intensive businesses that contribute to sustainable growth and technological leadership.

WIS  
award  
2026wateralliance  
innovation  
stimulation  
award

WIS AWARD 2026

# A LAUNCHPAD FOR DUTCH WATER TECHNOLOGY

For many young technology companies, the real challenge is not inventing something new, but bringing it successfully to market. That is precisely the idea behind the WIS Award organised by Water Alliance. The prize returns this year during the European Water Technology Week (26–28 October) in Leeuwarden, about 120 kilometres north of Amsterdam. “Besides the €10,000 prize money, the award mainly delivers visibility, recognition and acceleration towards the market,” says Agnes Dirksen, manager marketing & communications at Water Alliance.

*‘Participation in the WIS Award is a way to tell the unique story of your company to the world’*



Agnes Dirksen

“We help Dutch water technology gain a foothold in the market. Participation in the WIS Award is a way to tell the unique story of your company to the world,” Dirksen says. The final of the award will be held during European Water Technology Week in Leeuwarden, where the winner will also be announced. According to Dirksen, the award has proven its value in recent years. “The WIS Award aims to generate visibility and recognition. And the last few editions have achieved that in a spectacular way.” A good example is Hydraloop, which won the award in 2018. The

Dutch cleantech company develops compact, low-maintenance systems for decentralised greywater recycling. Since launching its technology in 2017, Hydraloop has rolled out its product internationally and gained broad recognition. “Winning the WIS Award helped accelerate that process,” Dirksen says.

## Momentum

Yvonne van den Berg, international business developer at Water Alliance, has also seen the impact of the award up close. “The WIS Award has significantly helped winners gain visibility in recent years, both nationally and internationally,” she says.

“It’s great to see how a winner – and often other finalists as well – suddenly gain real momentum afterwards.”

Recent winners include Samotics (2020), Ferr-Tech (2022) and BubbleFlush, which won the most recent edition. “All of them are water technology companies that are doing extremely well.” According to Van den Berg, the impact goes beyond media attention. “It is also recognition of what you are doing — confirmation that it truly has impact.” In her view, the award also acts as a springboard. “You may just have entered the market, or perhaps you are



Two previous winners of the WIS Award: FerrTech (top) and Bubble Flush

standing right at that door. In that case the award can give you exactly the push you need to accelerate your success.”

## Innovation and market readiness

The jury, consisting of experts from across the sector, looks closely at both innovation and market potential. “It’s really about how innovative the innovation is,” Van den Berg says. “Is it truly something new? Is it an improvement? What is the sustainability factor? And it must be ready to enter the market.”

Dirksen adds: “The technology must be ready

for market introduction. Its operation has been tested and proven to meet the expected requirements and standards. In addition, the financial framework for production and launch must already be in place.”

## Taking part

The award includes €10,000, tailored to the needs of the winner. “That money is not simply paid out,” Van den Berg explains. “We work together with the winner to determine how it can best be spent — specifically aligned with the company’s ambitions. Think of international positioning or visibility at trade fairs, depending on the company’s strategy.”

How can companies take part? By the time this issue of WaterProof rolls off the press, there is a good chance that the finalists for 2026 have already been selected. Still, Dirksen stresses the importance of keeping an eye on the award.

“The WIS Award really matters and can open many doors. Check the websites to see whether applications are still possible. And if not, visit the final during European Water Technology Week in October. You will gain valuable insights and be well prepared for the next edition.”

*‘It’s really about how innovative the innovation is’*



Yvonne van den Berg

**EDITOR'S TIP**  
KEEP AN EYE ON THE FOLLOWING WEBSITES:



WISAWARD.NL



EUROPEANWATERTECHWEEK.EU



WATERALLIANCE.NL

# UPP WATER

# UPP WATER

**UPP WATER**

**UPP WATER**



from left to right: Hendrik Swart, Hein Molenkamp, Paula Gonzales, Juliette Douglas and Ricardo Palacios

## PRESTIGIOUS AWARD FOR REDSTACK'S 'BREAKTHROUGH TECHNOLOGY'

Dutch clean-tech company REDstack, a member of the Water Alliance, has won the WEX Global Innovation Award. The prize was presented in February 2026 in Seville, Spain, and is widely regarded as one of the water sector's most significant accolades. Sponsored by the Spanish water utility Aqualia, the award is expected to further strengthen REDstack's international ambitions. It was accepted by chief executive Paula Gonzalez, sales manager Ricardo Palacios and sales engineer Hendrik Swart.

At the core of REDstack's breakthrough lies a fundamental redesign of the electro dialysis stack — the central component in installations that remove salts from water. According to the company, the innovation has resulted in the most efficient stacks of their kind worldwide, making the treatment of low total dissolved solids (TDS) water streams economically viable for industry.

"The low-maintenance, high-performance units are particularly suited to removing nitrates and chlorides from industrial process water, enabling reuse in cooling towers and other applications," Gonzalez said. "Thanks to the very

high water recovery rates, only a small percentage of concentrate requires further treatment — a crucial advantage at a time of tightening discharge regulations and increasing water scarcity." REDstack also sees significant potential in the treatment of municipal wastewater. By reducing salinity levels while maintaining high water recovery, treated effluent can be made suitable for irrigation — a prospect the company believes offers a viable solution for regions facing acute water stress.

The benefits, Gonzalez argues, extend further still. "The stacks are deployed with integrated bipolar membranes

that produce acid and base from salt streams. This opens up an entirely new field of applications, ranging from nitrogen recovery and brine valorisation to carbon capture." A key technical feature is the complete separation of process flows within the stacks, preventing cross-contamination and ensuring the production of high-purity acids and bases. Gonzalez explained: "In nitrogen recovery systems, the stacks function as an add-on technology to acid scrubbers, where ammonia is dissolved as ammonium sulphate. Through bipolar membrane electro dialysis, this compound is subsequently split into reusable sulphuric acid and a pure ammonia stream. The result is a closed-loop system in which sulphuric acid is fully reused and ammonia efficiently recovered — a tangible example of circular chemistry in action."

### DOING WATER BUSINESS IN SOUTHERN EUROPE

WEX Global is held annually in Spain — a country facing major challenges in terms of drought and water scarcity. At the same time, it is a country that is open to Dutch solutions. For this reason, Water Alliance initiates and coordinates numerous activities around WEX Global each year.

Dutch participation in WEX Global in 2026 was made possible through the WTEx10 programme — an initiative of the Dutch government, the Ministry of Economic Affairs and Climate Policy, the Ministry of Infrastructure and Water Management, and the Top Sector Water & Maritime.

Those looking to quickly build a network in the Southern European water and energy sector can participate in the activities of Water Alliance.

For more information, please contact Juliette Douglas, Liaison Business Development. [j.douglas@wateralliance.nl](mailto:j.douglas@wateralliance.nl)

# DON'T MISS A DROP!

## WHERE DUTCH WATER TECH MAKES WAVES

Want to stay ahead in the world of water innovation? Water AllianceTV brings you bite-sized video updates on breakthrough technologies, real-world challenges, and smart solutions—straight from the Netherlands to the rest of the globe. From clever startups to bold international projects, we dive into what matters.

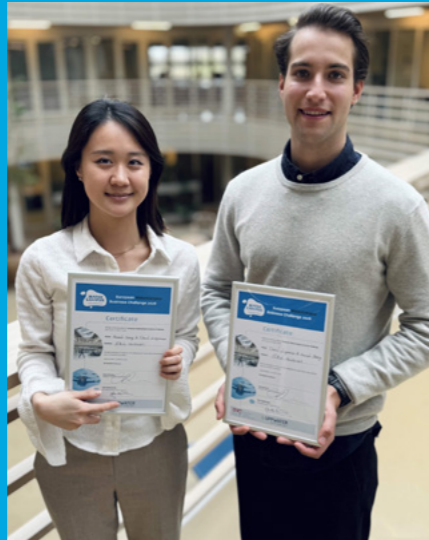
FAST, FUN, AND SERIOUSLY SMART!



wateralliance<sup>TV</sup>

# S&L VENTURES WINS THE FOURTEENTH WATERCAMPUS BUSINESS CHALLENGE

S&L Co-founders  
Hannah Seong (l)  
and David Logeman



S&L Ventures has been named the winner of the fourteenth WaterCampus Business Challenge, held in late March 2026 in Leeuwarden. Co-founders Hannah Seong and David Logeman impressed the jury with an innovation aimed at tackling a major challenge for the agricultural sector: nitrate pollution.

For five days, twelve international start-ups, researchers and entrepreneurs took part in an intensive programme of workshops, critical reflection, collaboration and networking, guided by experienced professionals. The aim was clear: to help promising water innovations take the next crucial steps on their path towards the market.

According to the twelve participants, it was an unforgettable week. One distinctive feature of the challenge is that senior entrepreneurs and managers from established companies also join several of the workshops. The result is a dynamic exchange of experience, ideas and perspectives – a week packed with knowledge-sharing, new connections and fresh insights. It is precisely this spirit of collaboration that Water Alliance seeks to foster.

The week was made possible through the joint efforts of WaterCampus Leeuwarden, Wetsus, NEW tt, UPPWATER and Water Alliance. In this special supplement of WaterProof, we introduce the twelve promising participants of the 2026 edition

The WaterCampus Business Challenge gives start-ups, PhD researchers and ambitious SMEs the chance to turn bright ideas into real businesses. "Candidates are selected on innovation, sustainability and market potential", explains organiser Roxane Yazdanpanah (Water Alliance). "Those with the strongest concepts earn a place in this focused programme, designed to accelerate growth."

Applications are now open via the website of wateralliance, or by contacting Roxane directly at [r.yazdanpanah@wateralliance.nl](mailto:r.yazdanpanah@wateralliance.nl)

You need further proof? Participants in the 2026 edition rated the challenge an impressive 9.5 out of 10 – a clear sign of its impact. In the accompanying video, participant Rick Penn shares his experience, offering a first-hand look at how the programme helps ideas move from concept to market (that is: from early-stage thinking to real-world business).



WATCH RICK PENN  
SHARING HIS  
EXPERIENCE ON  
YOUTUBE

EDITOR'S NOTE: SHORT FILMS FEATURING THE TWELVE COMPANIES CAN BE FOUND ON THE WATER ALLIANCE CHANNELS ON LINKEDIN, INSTAGRAM AND YOUTUBE.

Deze QR-code verwijst naar EWTW; moet naar de film op YouTube verwijzen <https://>





Co-founders  
Hannah Seong (l)  
and David Logeman

## S&L VENTURES: TURNING NITRATE POLLUTION INTO A RESOURCE

As mentioned, S&L Ventures has been named the winner of the WaterCampus Business Challenge. Co-founders Hannah Seong and David Logeman have developed an innovation that tackles a persistent problem in agriculture: nitrate pollution.

Nitrate pollution of water and soil remains a stubborn challenge in agriculture – and a sensitive issue for policymakers. Dutch startup S&L Ventures (formerly Seaweedlink) sees an opportunity where others see a problem. The company, based in Wassenaar (near The Hague, the Netherlands), was co-founded by Hannah Seong and David Logeman and has developed a technology that removes excess nitrates from water and soil while keeping them in use.

At the centre of the approach is SolPhyX, a carbon-based composite material to which nitrate particles actively bind. The material can be deployed in locations with high nitrate concentrations, such as drainage ditches alongside farmland. Once saturated, it is not discarded as waste but reused as a slow-release biofertiliser, allowing nitrogen to remain within the agricultural cycle rather than ending up in the environment.

"The laboratory tests show that the material can effectively absorb nitrates from water," says Logeman. "The next step is field research together with farmers, to see how the system performs under realistic conditions, for example in ditch water." The technology is still in an early phase. Working with water authorities and agricultural partners, S&L Ventures aims to scale up towards larger pilot projects. Participation in the WaterCampus Business Challenge is therefore primarily about finding the right collaborators. "We are looking for knowledge institutions, technology partners and policymakers to validate the product and ensure it fits both regulation and practice," Logeman says. "The goal is to achieve environmental gains that also make economic sense."

The intended end users are farmers and public authorities seeking to reduce nitrate pollution without losing valuable nutrients. In the longer term, the company also sees scope for a nitrogen credit system, similar to CO<sub>2</sub> credits, in which captured nitrogen could be used to offset industrial emissions.

[SEAWEEDLINK.COM](http://SEAWEEDLINK.COM)



CCO Rick Penn

## ACCELERATED FILTRATION, INC: DRIVING MAXIMUM EFFICIENCY IN INDUSTRIAL WASTEWATER TREATMENT

Industrial wastewater can be so heavily contaminated that traditional treatment methods make reuse seem impossible. US-company Accelerated Filtration, Inc, based in Midland, Michigan (US), says it has a way to change that with its VelRay X Suspended Solids Management System – a filtration platform designed to make solids removal dramatically more efficient for tough waste streams.

Chief Commercial Officer Rick Penn explains the rationale: "The system is an innovative, self-cleaning filtration platform that automatically delivers maximum efficiency in removing TSS (Total Suspended Solids, meaning particles suspended in water)," he says. "And it does this with minimal maintenance. The technology is aimed at heavily polluted industrial water, including water from production processes, stormwater runoff and residual streams from food or protein processing."

By targeting the removal of suspended solids early in the treatment train, VelRay X aims to make downstream processes – such as advanced purification or water reuse systems – much more reliable and efficient.

The way it works is straightforward in concept: rather than letting coarse contamination remain dispersed, the system separates and collects solids in one place, which reduces the burden on later treatment steps and helps unlock value from waters that might otherwise be discharged or require costly handling.

Accelerated Solutions is now looking to validate its technology in Europe and to build partnerships, particularly through organisations such as the Dutch Water Alliance and Wetsus. "Our goal is to meet end-users and industrial partners, test the technology across different sectors and, at the same time, prepare for commercialisation," Penn says.

With industries under growing pressure to improve sustainability and resource efficiency, systems that enable more complete reuse of industrial wastewater could become an important part of future water infrastructure.

[ACCELERATEDSOLUTIONS.COM](http://ACCELERATEDSOLUTIONS.COM)



Chief executive  
Anirudh Rajesh

## AESTUARIUM: TOWARDS GREENER AND CHEAPER DESALINATION WITH BACTERIA

As water scarcity intensifies under the strain of climate change, converting seawater into drinking water is no longer speculative. Desalination plants are rising along coasts from Spain to Saudi Arabia, but the dominant technology – reverse osmosis – devours energy and drives up costs. Dutch biotech startup Aestuarium believes it has a different, greener path.

The conventional process forces saltwater through ultra-fine membranes at high pressure, consuming vast amounts of electricity and, ultimately, contributing to CO<sub>2</sub> emissions. Aestuarium's founders say biology could do part of that work instead.

Chief executive Anirudh Rajesh, who grew up in Chennai (India) where water was only available from the tap for an hour a day in summer, says that experience stayed with him. After studying molecular biology at Maastricht University, he and colleagues formed Aestuarium in 2023 to develop a biological pre-treatment for desalination. Specially engineered bacteria absorb salt ions from seawater before it reaches reverse-osmosis membranes. With less salt to strip out, the pressure – and therefore energy – required falls, potentially reducing operational costs and extending membrane life.

The technology is at an early stage, with lab tests ongoing. Rajesh says the team is now seeking partners willing to pilot the system at scale, including plant operators, water authorities and engineers.

Initially focused on Europe, particularly Italy, Spain and the Netherlands, Aestuarium has its eye on regions with extreme water stress such as the Middle East and parts of Asia. "If the bacteria perform outside the lab as well as they do inside it," Rajesh says, "they could help make one of the world's thirstiest technologies much more sustainable."

[AESTUARIUM.NL](http://AESTUARIUM.NL)



Anaximenis Silva (l)  
and Sergio Celaschi

## AQUASENSE AI: MAKING WATER QUALITY PREDICTABLE IN REAL TIME

Across sectors from drinking water utilities to industry and agriculture, water management still too often depends on slow lab tests and fragmented data – leading to delayed responses, regulatory risks, and environmental harm. UK-based AquaSense AI Solutions Ltd, headquartered at Birmingham City University (UK), is developing an integrated platform to turn sensor, satellite, and AI data into water quality predictions.

Founder and CEO Anaximenis Silva, a business consultant and diplomat who studied at the Islamic University of Madinah (Saudi Arabia) and later worked on water projects across Africa and South America, says the goal is proactive decision-making. "The system collects IoT sensor data (internet-connected sensors that deliver live measurements), uses artificial intelligence and machine learning (software that learns patterns), and incorporates satellite information such as groundwater data from GRACE satellites. This lets us forecast indicators like discharge compliance or oxygen levels within hours rather than days," Silva explains.

AquaSense AI Solutions is also a strategic partner to CTI Renato Archer – Brazilian Ministry of Science, Technology and Innovation, strengthening the company's role in advancing sustainable and data-driven water management technologies.

The technology is currently in a validation and pilot phase (technology readiness level 5–6). "The base works, but it needs further testing in real conditions with partners such as water companies and research institutions," Silva says. AquaSense AI is focusing on users across Europe – particularly in the Netherlands and the UK – where tighter regulation and more frequent water quality challenges are driving demand for smarter monitoring. In the longer term, the company plans to expand into the Middle East and Latin America, regions facing mounting water stress and regulatory pressure. Tools that can turn complex datasets into actionable, timely insight could increasingly be essential as water systems come under strain.

[AQUASENSE-AI.COM](http://AQUASENSE-AI.COM)



Aruna Founder  
Ameeth Chaudhury

## ARUNA INOVATION: PREPARING CHEMICAL-FREE WATER TREATMENT FOR EUROPE

Advanced oxidation processes (AOP) are increasingly used to remove stubborn contaminants such as 1,4-dioxane (a hard-to-break-down industrial compound), volatile organic chemicals and micro-pollutants like trace residues of pharmaceuticals and industrial chemicals. But many existing solutions are expensive, complex and reliant on added chemicals or mercury-containing UV lamps, which can cause environmental issues. US-based startup Aruna Inovation believes it has a different path with its chemical-free technology called TRITON.

Founded by Ameeth Chaudhury, who grew up in Mumbai, India (where water scarcity was a lived reality) and later earned a master's degree from Columbia University in New York (US), Aruna's mission is to make disinfection and treatment of emerging contaminants more accessible using mercury-free lamps and zero chemical additives. "TRITON works by using powerful pulses of broad-spectrum light to break apart contaminant molecules through processes called photolysis and photodissociation" Chaudhury explains. "The peak-power concentrated energy also generates hydroxyl radicals directly from water itself. No added chemicals needed."

The result, Chaudhury says, is lower energy and maintenance costs, no need for chemical dosing, and much lower CO<sub>2</sub> emissions compared with traditional systems. For industrial users wrestling with strict quality standards and rising operating expenses, that combination could be compelling. Aruna is currently seeking seed capital of US \$2.5 million to take TRITON into its next development phase. Potential customers span a wide range of sectors, including industrial wastewater, data-centres, laundries, semiconductor manufacturers and drinking water utilities. Municipalities facing tight regulations for tertiary and quaternary treatment are also on the target list.

"We are focusing on pilots in the Netherlands and the EU-market, where micropollutant regulation is moving ahead," Chaudhury says. These pilots will not only generate performance data but also help with \*\*market validation, partnerships with OEMs (original equipment manufacturers) and integrators, and preparation for European regulation and financing pathways."

[ARUNAINOVATION.COM](http://ARUNAINOVATION.COM)



Nooshin Marvasti

## DAPHNE WATER SOLUTIONS: TINY AQUATIC ORGANISMS AS LIVING BIOFILTERS

Many existing water treatment technologies are expensive, energy-intensive and struggle to remove persistent pollutants such as PFAS, microplastics and pharmaceuticals. UK-based Daphne Water Solutions has a strikingly different approach: nature own microscopic aquatic organisms remove these contaminants working as a living biofilter.

The technology was developed at the University of Birmingham (UK) by company founders Professors Luisa Orsini and Karl Dearn, with contribution from Dr Iestyn Stead and Nooshin Marvasti. Within a matter of hours, Daphnia, tiny aquatic organisms, remove hard-to-treat substances from wastewater – without added energy or chemicals. The system can be integrated into existing secondary clarifiers at wastewater treatment plants or deployed at smaller, decentralised locations.

"Independent analyses show that the system has a minimal environmental and carbon footprint compared with conventional treatment methods," Marvasti says. "That makes the approach potentially attractive for water utilities, municipalities and industry looking to improve water quality while reducing environmental impact."

Daphne Water Solutions is now focused on scaling up: converting successful pilots into large-scale commercial deployments, building partnerships with water companies and technology providers, and attracting investment to finance growth. Participation in the WaterCampus Business Challenge is seen as a useful acceleration to commercial deployment, helping to connect proven science with commercial partners and investors.

"With the right collaborations and funding, we want to turn validated technology into a globally scalable and sustainable alternative for industrial and municipal water treatment," Marvasti says. The company's immediate focus is on the Netherlands, Germany and southern Europe, where regulation is tightening and water stress is increasing. South Africa is identified as a key growth market, with longer-term ambitions to expand into the United States, Hong Kong and Canada.

[DAPHNEWATERSOLUTIONS.COM](http://DAPHNEWATERSOLUTIONS.COM)



Denise Kay

### ENSPIRED SOLUTIONS: AIMING TO ELIMINATE 'FOREVER CHEMICALS' FOR GOOD

By now, the problem of PFAS – often called “forever chemicals” – is widely understood. Used for decades in products ranging from firefighting foams to industrial coatings, these substances are extremely persistent and pose serious risks to human health. While treatment options exist, many current methods merely capture PFAS and shift the pollution elsewhere, to landfills or groundwater. Enspired Solutions, a US company based in Lansing (Michigan, US), says it wants to break that cycle by destroying PFAS at the source, without creating toxic by-products.

Enspired Solutions was co-founded in 2021 by Denise Kay, PhD, and Meng Wang, PhD, MBA, PE. They have developed a technology that combines UV light (ultraviolet light that provides energy to trigger chemical reactions) with a patented chemical process. Together, these break PFAS molecules down into harmless components, such as water, fluoride, and simple non-toxic carbon compounds, without the need to transport contaminated material off-site. The technology is already at an advanced stage (technology readiness level 8) and has received recognition and contracts from, among others, US government agencies.

“Our approach is fundamentally different because we actually destroy PFAS rather than moving the problem somewhere else,” Kay says. “That means no long-term liability and no toxic waste streams that need to be managed.”

The company is now turning its attention to Europe. “We are currently exploring how our solution can be applied in a European context,” Kay explains. “We are looking for European partners – end users, but also organisations to help set up laboratories, environmental consultancies and high-tech companies. Our goal is to find the right mix of funding, partnerships and market access so this sustainable solution can be scaled up quickly in Europe as well.”

With PFAS regulation tightening across the continent, Enspired Solutions sees growing demand for technologies that can permanently remove these pollutants rather than merely contain them.

[ENSPIREDSOLUTIONS.COM](https://www.enspiredsolutions.com)



Chief Executive  
Ramzi Qaisi

### FLOW AQUA: TURNING WASTEWATER INTO VALUE

Flow Aqua, an engineering firm with offices in Leeuwarden (the Netherlands) and Amman (Jordan), is far from a newcomer in industrial wastewater treatment. Under chief executive Ramzi Qaisi, the company has spent around two decades working with clients including poultry slaughterhouses, dairy processors and livestock farms. Its portfolio ranges from conventional wastewater cleansing to biogas generation and water reuse using membranes (filters that separate contaminants from water) – and now the firm is pushing into turning waste streams that have traditionally been cost centres into economic assets.

Two specific waste streams from the food industry are at the heart of Flow Aqua’s latest focus. The first is known as FOG – fats, oils and grease – which are released in large volumes at poultry processing plants. Flow Aqua says that between three and ten tonnes of this material per facility per day can be converted into biodiesel using a relatively straightforward chemical process. “The biodiesel can be used directly in the plant’s own steam boilers; a by-product, glycerol, also has market value. This turns a waste problem into an energy source,” Qaisi explains.

The second stream is poultry manure. For individual farmers, generating biogas from manure is often prohibitively expensive and technically challenging, and composting tends to be more economically viable – especially when manure from multiple farms is combined. Instead of high disposal costs, the result can be a product with added value. Flow Aqua is participating in the WaterCampus Business Challenge because it is looking for Dutch partners willing to test these concepts at pilot scale, ideally alongside poultry processors and research institutions.

The Netherlands is seen as a proving ground, says Qaisi, with scaling planned especially in the Middle East and North Africa. Validation, financing and industrial partnerships will be crucial. “The goal remains to develop circular solutions that are not only sustainable but demonstrably profitable.”

[FLOW-AQUA.COM](https://www.flow-aqua.com)



Sammy Mpungu

### HYDRODRIP TURNS WATER PERFORMANCE INTO INVESTMENT CAPITAL

Sammy Mpungu, originally from the Democratic Republic of Congo and now based in the Netherlands, works at the intersection of water systems, digital infrastructure and finance. With a background in Mechanical Engineering and Information Technology, he founded HydroDrip – a platform designed to improve water system performance while strengthening investment readiness in emerging markets.

At the core is the concept of Water Credit: linking verified operational improvements to structured financing. HydroDrip applies digital MRV (Monitoring, Reporting and Verification) to measure performance across water supply, wastewater treatment and reuse systems, translating operational gains into investment-ready data. “We don’t just measure water savings,” Mpungu says. “We convert verified operational performance into structured insights that support ESG strategies and unlock blended or private capital.”

Many utilities struggle with high levels of non-revenue water, underused reuse capacity and limited access to funding. By making performance measurable and financially actionable, HydroDrip aims to reposition water and wastewater infrastructure as a more bankable and resilient asset – particularly when integrated into Water-Energy-Sanitation Systems (WESS).

“Too often, utilities remain stuck in a cycle of losses and limited investment,” Mpungu explains. “If performance can be verified digitally, infrastructure improvement can be directly linked to finance.” The company is currently in its pilot and early deployment phase, validating its performance-based models with institutional partners while developing financial pathways for larger-scale WESS investments.

Through the WaterCampus Business Challenge, Mpungu is seeking collaboration with Dutch technology providers, utilities, research institutions and impact-driven investors to help scale performance-based water solutions internationally.

[NEW.HYDRODRIP.AI](https://www.newhydrodrip.ai)



Nubia Founder  
Eiman Bashir

### NUBIA WATER SOLUTIONS: BRINGING WATER TECHNOLOGY TO DROUGHT-PRONE REGIONS

In many countries struggling with severe water scarcity and weak infrastructure, advanced water technology often remains confined to regions with money and technical expertise. Nubia Water Solutions, founded by researcher Eiman Bashir (affiliated with Wageningen University, the Netherlands), aims to change that by tailoring Dutch and European water innovations to climate-vulnerable areas such as parts of North and East Africa, the Middle East and the Gulf region.

Rather than simply exporting equipment, Nubia uses a science-based and participatory approach to ensure technologies are not only technically effective but also socially and ecologically appropriate for local contexts. The company selects the best solutions using local data, adapts systems where needed, designs them to be modular (so they can be expanded step by step), test them in small-scale pilots and invests in capacity building through training and user support.

“That approach is designed to avoid two common pitfalls,” Bashir says. “Failures due to unsuitable technology, and technology that does not have lasting impact. Because our goal is precisely to achieve sustainable impact.”

Through participation in the WaterCampus Business Challenge, Nubia seeks to validate its market needs, find partners for pilot tests or scaling, strengthen its network and prepare for financing and investment opportunities. “We are targeting a broad group,” Bashir explains, “including end users such as water authorities, industry and farmers, researchers and technology providers, pilot partners and investors who want to contribute to sustainable water solutions.”

By building locally appropriate solutions and embedding them in broader social and ecological systems, Nubia aims to help bridge the gap between innovation and real-world water challenges in some of the world’s most water-stressed regions.

[NUBIAWATERSOLUTIONS.COM](https://www.nubiawatersolutions.com)



Versa CEO Samira Ehsani

### VERSA SOLUTION: BRINGING AI TO INDUSTRIAL WATER TREATMENT

In an era when sensor data flows out of nearly every industrial process, many water treatment facilities still rely on reactive maintenance and inefficient decision-making. Versa Solution, a tech startup based in Utrecht (the Netherlands), wants to change that with AI-driven optimisation in industrial water purification. The firm is led by founder and CEO Samira Ehsani, whose LinkedIn profile motto – “Fight for your dream” – reflects her mission to support the water sector with advanced digital tools.

Versa Solution’s flagship product is Quantaro, an AI decision-support platform that turns existing sensor streams into reliable insights for operations teams. Rather than waiting for alarms to go off, Quantaro interprets raw data from membrane systems such as reverse osmosis (RO), ultrafiltration (UF) and nanofiltration (NF) – common membrane filtration methods used in industrial water treatment – and translates them into validated key performance indicators (KPIs).

“Quantaro is designed for existing installations,” Ehsani explains. “Instead of waiting until sensors trigger alerts, the platform interprets raw sensor data and converts it into validated critical performance indicators. Operators are warned early about potential issues and maintenance risks.” Currently in pilot phase in the Netherlands (technology readiness level 6–7), Versa Solution aims to validate Quantaro in real operational environments, with a view to a scalable product for industrial water users. To reach that point, the company is looking for 1–2 launching customers – industrial sites that want to leverage their existing data to improve performance in 2026 – as well as selected partners, including OEMs (original equipment manufacturers), IIoT (industrial internet of things) data platforms and academic institutions, to support integration and independently quantify return on investment.

“We’re looking for operational teams ready to use the data they already have,” Ehsani says. “We can demonstrate measurable gains such as lower energy costs, reduced chemical use and fewer unplanned stoppages – a concrete return to the pressure industrial water users face to operate more efficiently and sustainably.”

[VERSASOLUTION.NL](https://www.versasolution.nl)

**business model**



Jiahui Gu (l) and  
Ángel Velasco Sanchez

### WETSUS RESEARCHERS: AN EFFICIENT SYSTEM FOR DEEP SOIL MEASUREMENTS

Soil analysis is essential for agriculture and environmental management, but mapping deep soil layers (down to more than one metre) is often expensive and time-consuming. Traditional methods rely on extracting soil cores (cylindrical samples of earth) and analysing them in laboratories, a process that requires specialist expertise and often leaves deeper layers underexplored. Researchers Ángel Velasco Sanchez and Jiahui Gu at Wetsus believe they have found a faster alternative.

Their company name is GuSanVel and their solution is a robust, mobile measurement system that can be inserted directly into the soil. The device combines RGB cameras with hyperspectral cameras (which detect not only colour, but also chemical composition and moisture patterns), allowing measurements and images to be taken in situ. According to the researchers, this provides almost immediate insight into the full soil profile – without excavation or the need to hire specialised analysts.

“The project is currently at a very early development stage (technology readiness level 1),” says Velasco Sanchez. “That is why we are focusing on collaboration with farmers, agricultural organisations and public authorities, both to further test the innovation and to validate the businessmodel. Also one of our motivations with our soilcam is to make the visualization of soils more accessible to the general public. So our solution is not only scientific/technological but also educational.”

One possible next step, he adds, could be a rental model, in which the device is made available to advisory firms rather than sold outright. Through initiatives such as the WaterCampus Business Challenge, the researchers are making connections with end users, intellectual property specialists, potential customers and investment partners, as well as manufacturers capable of producing the system at scale.

“The initial focus is on the Dutch market,” Velasco Sanchez says, “with longer-term expansion to other European countries.”

[WETUSUS.NL](https://www.wetusus.nl)

**visualisation**

CIRCULAR WATER IN THE POLDER



HOW

**LELYSTAD AIRPORT BUSINESSPARK BECAME A MODEL FOR SMART WATER REUSE**

It has been a while since Lelystad Airport Businesspark (LAB) made national headlines in the Netherlands. Yet the project remains a striking example of how circular water systems can work in practice. At LAB, vacuum sewer systems and vacuum toilets play a central role in a circular water approach. Wastewater is collected efficiently, treated locally and reused on site — saving thousands of cubic metres of drinking water every year. It is exactly the kind of project that the Circular Water Expert Group of Water Alliance likes to sink its teeth into, especially as the Netherlands faces major challenges in sustainable urban development.

“OMALA (Ontwikkeling Maatschappij Airport Lelystad Almere, ed) deserves credit as the area developer for what has been achieved here,” says Joost Kreuger. In his day-to-day work he is a project leader at Qua-vac and also a member of the Water Alliance Circular Water Expert Group. The expert group focuses on accelerating the application of technologies that enable water to be reused in homes and businesses. Another goal is to increase the use of rainwater. Ultimately, these approaches aim to reduce not only drinking water consumption but also energy use in and around the built environment.

Kreuger has particularly good memories of the LAB project.

“Together with partners such as WaterLab Circulair Water, Liander, Vitens and a range of companies, OMALA helped turn LAB into a true best practice in area development and circular water use,” he says.

For the technical realisation of the water chain, companies including Jotem, Rietland and Qua-vac joined forces. Rietland provided natural pre-treatment using its Phytoair system, Jotem handled purification through membrane and oxidation technology, and Qua-vac supplied the vacuum sewer systems.

**Award for sustainable water use**

The result is a system that enables

water reuse for industrial processes and fire-fighting purposes, significantly reducing drinking water consumption and energy use while lowering wastewater discharge.

The project was previously recognised with the Sustainable Water Use Award from Vitens — an acknowledgement of circular thinking put into practice. “The project had several objectives,” Kreuger explains. “First of all, maximising the reuse of wastewater so that far less drinking water is required. But with this case we also wanted to show that a scalable and reproducible area-based approach is possible for other business parks as well.”

**Economies of scale**

With the major construction and development challenges the Netherlands faces in the coming years, it makes sense to look at integrated circular water solutions, Kreuger says on behalf of the expert group. “You can achieve economies of scale when you stop thinking in terms of solutions per building and instead develop an integrated system for an entire area. That is what we did at LAB.”

The approach also ensured that water across the entire site can be reused. One of the key elements was Rietland’s natural pre-treatment technology, which requires less energy and fewer chemicals. In addition, nano-filtration and UV/H<sub>2</sub>O<sub>2</sub> oxidation from Jotem allow part of the treated water to be upgraded to a quality suitable for use as fire-fighting water or industrial process water.

**Vacuüm sewer systems**

Dennis Meerburg, business developer at LAB, looks back on the project with great satisfaction. “We save large amounts of drinking water here by collecting wastewater efficiently and then treating the greywater on site,” he says. “The remaining toilet water is transported through narrow pipes at high speed using pressure differences and a small amount of water — somewhat comparable to the systems used in aircraft.”

Because of this system, wastewater transport becomes compact and requires significant energy.

*‘The approach ensured that water across the entire site can be reused’*

*Ik begrijp dat in Brits Engels zo’n trefwoord (dubbele punt) niet wordt gebruikt*

Dennis Meerburg (l) and Joost Kreuger

**WATERLAB CIRCULAIR WATER**

With the ambitious construction plans ahead for the Netherlands, Lelystad Airport Businesspark is a strong example of how circular water technology can contribute to sustainability at business parks.

In 2025 LAB received national recognition by winning the first Sustainable Water Use Award for Business, presented by Vitens. One striking figure: when fully developed, the use of vacuum toilets combined with vacuum sewer systems at LAB is expected to save more than 100,000 cubic metres of water per year — roughly the equivalent of 40 Olympic swimming pools.

Collaborations such as the one behind LAB are relatively easy to establish thanks to the network of Water Alliance. Within the organisation, more than 200 Dutch water technology companies share knowledge through ten thematic expert groups. For companies, this model not only facilitates knowledge exchange but also helps them initiate joint projects.





had jij al een nieuwe pagina van Myrthe gekregen?

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