water proof

wateralliance

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DOING BUSINESS IN CHINA

VIDA FOCUSES ON INNOVATION IN THE FOOD CHAIN

START OF THE EUROPEAN NETWORK LIVING LABS

MATCHMAKING TO THE MAX

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COLOFON

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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'DANCING THE TANGO' by Hein Molenkamp

By the time you are reading this, the first month of 2019 will already have passed. A year in which the water technology sector will undoubtedly grow and offer many solutions to a variety of global challenges. For example, the shortage of clean water and clean sanitation, the growing world population, the migration to cities and a strongly increasing demand for food.

But it won't be easy. The road from idea to business case can be a long one, and supply and demand cannot find each other without the efforts of two parties.
We are constantly looking for true entrepreneurs to help with this. People who see their work almost (or completely) as a party–being their own boss, taking on challenges, being competitive–but also have the will to collaborate. Yes, dancing is permitted at this party called entrepreneurship, after all, it takes two to tango.

I bet you can guess my resolution for the new year: The Water Alliance wants to get as many entrepreneurs as possible "dancing the tango" in 2019. And our ambition does not end there! We will be focusing on properly matching dancing partners to ensure that many fruitful tangos are danced with regard to business development. We can help with the matchmaking, marketing and business development, which we do by putting ourselves in the shoes of the business community as much as possible. What do entrepreneurs–both large and small–face when developing their business? What dreams do they have? What ambitions? What challenges must they overcome?
These are questions we always ask; at exhibitions, events and at the WaterCampus. The answers give us a good idea of water technology entrepreneurs, almost all of whom are looking for the same thing: to accelerate their business development.

Throughout 2019, we will report on their stories in WaterProof magazine, on our WaterProof Television channel on YouTube and via all our other channels of communication. Share your business ambitions with us and follow the stories of others on our channels. You might even find your perfect dance partner in one of our stories in 2019.

Hein Molenkamp
Managing Director, Water Alliance

'The Water Alliance wants to get as many entrepreneurs as possible 'dancing the tango' in 2019'

Hydraloop signs distribution agreement at WETEX 2018

Hydraloop (winner of the 2018 WIS Award) took a huge step forward at WETEX 2018 in Dubai last October, by signing an exclusive distribution agreement with the Concorde-Corodex Group for all countries within the United Arab Emirates and Oman. Corodex is a pioneer in water and wastewater treatment in the Middle East.
With this agreement, Hydraloop not only increases its visibility and commercial opportunities within the broad sales area, but it also benefits from the competence and professionalism of the team of no less than 1450 technicians serving the market.

Holland Water national supplier for Dubai Expo 2020

More Dutch success in Dubai, as Holland Water from Driebergen is also doing good business there. They scored some big orders together with their partner Culligan. Using twenty of Holland Water's Bifipro systems, Masdar City of the Abu Dhabi emirates plans to treat their water to prevent legionella, among others.

"The international competition was killing, but our partner's strong presence in the region, the intensive collaboration between our companies and the proven quality of the Bifipro system resulted in us being labelled national supplier", explains Van der Linde.

NEW TEAM MEMBERS FOCUSING ON INTERNATIONALIZATION

As a result of the international ambitions of Water Alliance, two new team members have recently joined the organization. Farah Qureshi strengthened the Water Alliance team in October 2018 and Harro Brons joined the team in November 2018.

"I'm instinctively the type of person that is always looking for the right words", Farah says, explaining her role as an International Marketing Communications Officer. Farah has a degree in European Studies, where she mostly focused on intercultural communication studies. After her graduation, she started working as a freelance marketeer for different projects in the Netherlands and abroad. "I think it's very fascinating that messages can vary within cultures and in this day and age having both your online and offline marketing appropriate for all audiences is crucial. Oh, and besides the overall international marketing, I'm also sort-of the in-house social media manager, translator and food coach for the rest of the team", she laughs.

As an International Business Development Manager at Water Alliance, it is Harro Brons his ambition to create chances for the Water Alliance members on an international level and to support them in their process of internationalization. "Water Alliance is leading in and has access to an ever growing international network of Water Hubs", he explains. "I am eager to put in my long term worldwide experience in realizing projects in (waste)water treatment and anaerobic digestion as a representative of the WaterCampus: a unique partnership of public and private companies, government agencies and knowledge institutes involved in water technology in the Netherlands."

TO BE FRAMED

Wow, receiving a compliment feels great. Immediately after the European Water Technology week last September, we received the following message from the United States in our inbox:

Dear All -
I am sure you are already overwhelmed by messages of congratulations for EWTW. The organization was impeccable and, without exception, the sessions, exhibition, cultural events, networking, tours, and matchmaking meetings were of a very high standard - while still managing to have an open and friendly atmosphere. I am sure that the stronger alliances forged by our hubs at the event will have a major impact in our efforts to address the world's water challenges. Bravo to your entire team!

***Beverley Ferrara** European Representative, The Water Council, Milwaukee, USA*

'THERE IS A REAL SENSE OF URGENCY'

In November, the Amsterdam International Water Week 2018 summit was held in... Rotterdam. A bit confusing perhaps, but oh well... everyone managed to arrive in the right place at the right time. Rotterdam was a great choice; the port city has wonderful ambience. The AIWW will be back in Amsterdam at the end of this year. The ambience may have been beautiful and fairy-like, but the theme of the event was not. The key message of the day: we have no time to lose.

Managing Director of the Global Centre on Adaptation (GCA), Patrick Verkooijen

The SS Rotterdam is a beautiful ship, isn't it? Where thousands of Dutch people left to start a new life in the United States in the '50s, the future of the earth was now on the agenda. And so, many experts debated climate change and the role of water technology in particular.
Polish climate ambassador Thomasz Chruszczow sees the storage of CO2 in nature as the only sustainable solution. "That is why the protection of biodiversity, the restoration of wetlands and the protection of freshwater resources is so important", according to the ambassador.
Managing Director of the newly established Global Centre on Adaptation (GCA), Patrick Verkooijen, advocated joining the forces of water and climate experts to act together as brokers for 'clustered packages' of solutions to accelerate their introduction. Mayor Aboutaleb of Rotterdam called for more cooperation. "Sharing is much better than competition", said the mayor.

The organizers of the AIWW conference gathered input from a broad group of water experts to make the programme even more action-oriented in 2019. Menno Holterman, Chairman of the organizing committee of the AIWW conference, was impressed by the enthusiasm around him. "Everyone presenting here is so passionate; that was certainly not the case a couple of years ago. There is a real sense of urgency, which we will need in the coming years." He called on those present to continue to come up with ideas to speed up the climate-proofing of cities and to achieve a circular economy.

Fleet Cleaner wins Maritime Innovation Award 2018

Great news from Water Alliance member Fleet Cleaner. The company run by entrepreneurs Alex Noordstrand and Cornelis de Vet won the Maritime Innovation Award 2018 in Zaandam, the Netherlands, last November. The award was announced during the Maritime Awards Gala, where thousands of maritime professionals, together with Dutch Minister for Infrastructure and Water Management Cora Nieuwehuizen, came together and emphasized the sector's innovative strength.
Fleet Cleaner removes fouling from the hulls of seagoing vessels during loading and unloading in the port using a robot they developed themselves. The entire cleaning process is offered as a service, not just the purchase of equipment. In 2016 the company won the Water Alliance WIS Award.

¡Bienvenido Chile!

On Friday 16 November, WaterCampus Leeuwarden once again enjoyed the dynamic sounds of the Spanish language. Representatives of various water-related institutions and a university from the Chilean city of Coquimbo visited the campus.

Coquimbo is located about four hundred kilometres north of the Chilean capital Santiago, along the coast of the Pacific Ocean. The group, which spent a week becoming acquainted with the Dutch water sector, received a tour which started with a presentation on WaterCampus' innovation chain. The presentation introduced the group to various links in the chain. They visited Wetsus and the Water Application Center (WAC), and Berghof Membranes gave a presentation. After the networking lunch, they visited two Frisian companies, Afmitech and Paques, both distinguished in wastewater treatment.

VIDA Project's Tom Vereijken

VIDA Project focuses on innovation in the food chain

'a great opportunity to quickly become future-proof

During one of the parallel sessions at the European Water Tech Week in September last year, Tom Vereijken, Director of the European Water Stewardship (EWS) and VIDA project leader at CEW, talked about the VIDA project. VIDA stands for Value-added Innovation in Food Chains. Led by the Centre of Expertise Water Technology (CEW), this European consortium aims among other things, to realise ten large-scale, innovative projects together with small and medium-sized enterprises, and will support multiple other projects, using three types of vouchers. 'A great opportunity for hundreds of businesses.'

The project, which launched shortly before the summer of 2018, is financed by the European Commission. "A lot of water is used in the food industry and a lot of byproducts are thrown out with the wastewater," says Vereijken. "We want to see if we can recover raw materials earlier in the process, such as starch in the chips industry, and find a meaningful application for them". For the VIDA project, the CEW is collaborating with Van Hall Larenstein and NHL Stenden University of Applied Sciences. It concerns projects using Key Enabling Technologies in the fields of water, energy and food production. These techniques form the basis for innovation and the shift to a greener economy. Within VIDA, ten selected cross-sector network organisations work together to complement each other and jointly reach approximately 2100 SMEs. These companies' innovations are linked to water and energy issues presented by large food producers. More than 80% of the total VIDA budget of 5 million euro will benefit SMEs. The project will last three years. "This is a great opportunity for hundreds of companies to accelerate the introduction of their innovations in the market with large manufacturers and a great opportunity for those manufacturers to quickly become future-proof."

vidaproject.eu

PROFESSOR **KAIJUN WANG**, TSINGHUA UNIVERSITY BEIJING:

‘PEOPLE CAN LIVE IN HARMONY WITH EACH OTHER AND THEIR ENVIRONMENT’

During the European Water Tech Week (#EWTW2018) held in Leeuwarden last September, a prominent member of the world of water technology climbed the stage: professor Kaijun Wang of the Tsinghua University in Beijing, one of the top universities of China and the world. Wang spoke about the Chinese approach to wastewater. Because of the rapid economic rise, the quality of (drinking) water is an extremely important issue in the fourth largest country in the world.

Let’s take a step back in time. In 2014, the Netherlands Agency for Entrepreneurship published a report on the basis of which it can be concluded that there are great opportunities in China for companies involved in sustainable water treatment. Of course, there are also some risks involved. The opportunities lie in the demand. The total investment needed in the water sector is estimated at 100 billion euros over the next ten years. This should pique the interest of any entrepreneur. The water technology sector has been on edge since 2012 anyways, as private investment and financing of China’s water and environmental technology sub-sectors have been permitted since then. These private investments are mainly in infrastructure for agriculture (irrigation) and urban and industrial water use and purification, according to the report. However, the great autonomy of the provinces and cities is a complicating factor in reform in the implementation of water policy, it states. As a result, proper guidance when doing business in China seems advisable.

New technology

Time for an update. The update came in late 2018, when professor Kaijun Wang of the Tsinghua University in Beijing told his story at the EWTW in Leeuwarden. The resolution of technological deficiency in the field of water purification and the sustainable use of water resources is high on the Chinese list of priorities, the participants learned. According to Wang, this can be achieved by replacing the existing technical frame of the sewage treatment technology with the application of new technology. One of the examples he mentioned was membrane purification. “Membrane purification requires higher pressures, but there is no need for chemicals such as caustic soda and activated carbon. That makes it a sustainable solution.” He also mentioned the efforts of Paques’ Chinese sister company, which is building a large wastewater treatment plant for ammonium removal. The plant is almost ten times larger than the largest plant built so far in China.

SOME 4800 PROJECTS ARE PLANNED TO IMPROVE WATER QUALITY AND WATER SUPPLY IN THE PEOPLE’S REPUBLIC IN THE COMING YEARS

Opportunities

It soon became clear that there were business opportunities. For example, some 4800 projects are planned to improve water quality and water supply in the People’s Republic in the coming years, according to Professor Kaijun Wang. The construction of new wastewater treatment plants is of course a response to the increasing industrialization and urbanization in China, which have far-reaching consequences for the environment and society if appropriate measures are not taken. A few years ago, the state press agency Xinhau announced that approximately 60% of Chinese groundwater is contaminated. The pollution is caused by wastewater dumping and pesticide usage among other things. Groundwater accounts for one third of the total water supply. “Water scarcity and environmental pollution have a huge impact on the welfare of the population and one the economy, agriculture and food security”, stated Wang. “What matters is that new solutions ensure that people can live in harmony with each other and their environment.”

Doing business in China

Dutch water technology entrepreneurs who are interested in doing business in China, but do not know where to start can register with the Water Alliance. Through the ‘Water Tech Hub Alliance’ formed in late September, the Water Alliance is working increasingly closely with the Jiangsu Institute of Environmental Industry (Jiangsu Cluster) in China. www.jiei.cn).

www.wateralliance.nl

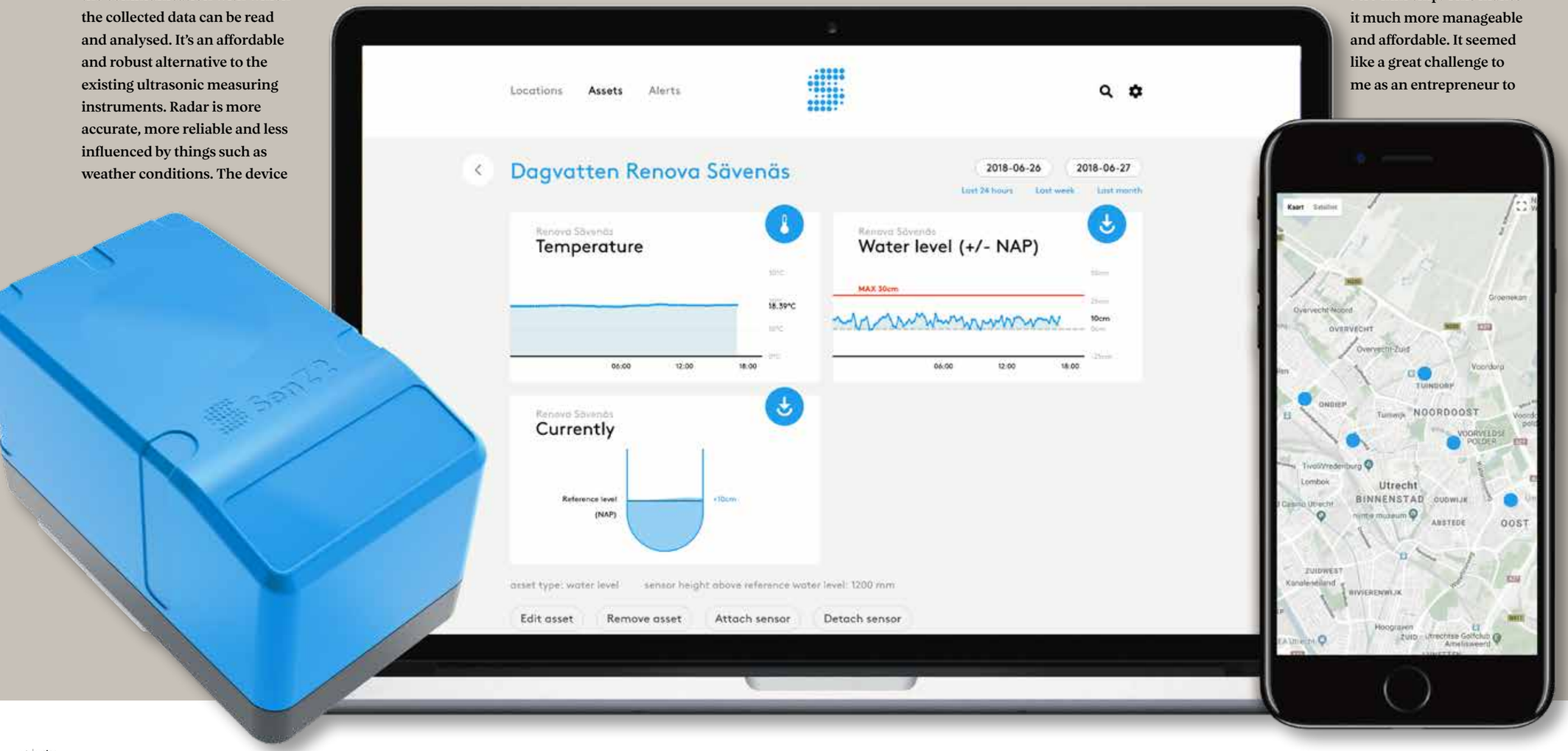
‘Things are moving quickly now’

After years of employment with research organisation TNO, Peter Hiemstra founded SenZ2 in 2015. “I want to serve the market with innovation and modernisation.” Innovation. With a radar made simple, SenZ2 is doing exactly that.

“We offer a radar sensor for measuring fill levels. It’s a wireless, easy to install, battery-operated device. We also provide the communication with which the collected data can be read and analysed. It’s an affordable and robust alternative to the existing ultrasonic measuring instruments. Radar is more accurate, more reliable and less influenced by things such as weather conditions. The device can be placed on top of any plastic drum, IBC, tank or silo to determine the fill level inside to the millimetre. Our sensors can also be used to monitor water levels in surface water and wastewater. Because the sensor is completely waterproof and packed in a small strong housing, it can be hung anywhere, even in sewers.”

Why did you launch this product on the market?

“I worked at TNO for about 8 years. It was a very interesting 8 years. You’re basically always working three years in the future, working on innovations and new techniques. At TNO, you help develop something, but at some point it’s finished and you start a new project. After all these years I wanted to see what concrete possibilities there are in the market with these techniques. We were very much involved with sensors and sensor networks, and radar was part of that. Radar is often thought of as large, expensive equipment on things like naval ships, but the technology has come a long way. We work with radar that fits on a 7 x 7 mm chip. This makes it much more manageable and affordable. It seemed like a great challenge to me as an entrepreneur to delve into the possibilities of these innovations.”



Are you enjoying entrepreneurship?

“Yes, very much so. We are a young company with a unique product. We have currently reached a good point. It is hard work, but we are becoming more and more visible. In this third year, everything is suddenly coming together. Not only in the Netherlands; we are receiving positive reactions to our work globally. This gives a lot of satisfaction. It reinforces the drive we already have. The SenZ2 team is just as motivated as I am. We are all people who love pushing the limits and want to keep innovating. We want to maintain or even extend our lead.”

So you are going to conquer the world with SenZ2?

“I think that is every entrepreneur’s dream; a product that is sought after worldwide. We are well on our way. The best part is that our product consists of fully Dutch-made components. In the world of water technology, we—the Dutch—are the frontrunners and looked to as an example. If a product is made in the Netherlands and sells well in the Netherlands, it is more quickly accepted abroad. We are in the middle of a great process, the end of which is nowhere near in sight.”

senz2.com

Innovation SenZ2

‘we are receiving positive reactions to our work globally’

infographic The Water Technology Innovation Chain

The Water Technology Innovation Chain

The WaterCampus brings together a complete chain of innovation for water technology, from first idea, research, specialized laboratories, various demo sites, launching customers to commercial international applications by commercial companies. Indeed from knowledge to business. It is driven by the idea that technological development and innovation is needed to develop new markets and create new business opportunities.

‘Safe drinking water is a fundamental human right’

Johan Bel owns D2D Water Solutions (in addition to Mijn Waterfabriek). He was runner-up at the Water Alliance Innovation Stimulation Award 2018 (WIS) with his Drop2Drink unit. Water has been his passion for more than quarter of a century now.

What is D2D Water Solutions?

“A Dutch company with more than 25 years of experience in water management. We develop, produce and deliver smart water purification systems for use in homes, offices, schools and other municipal buildings. Rainwater is an excellent source of water available to everyone; it just needs collecting. Harvesting rainwater reduces the demand for the existing water supply.”

So, you produce your own drinking water?

“Exactly. The treatment system ensures 100% microbiologically safe water. The rainwater is purified with a microfilter, activated carbon filter, membrane filter (UF) and UV unit. With just one procedure you can turn rainwater into microbiologically safe drinking water, making it a fully-fledged alternative to groundwater and surface water.

What is your vision?

“Because of the depletion and wastage of drinking water resources, climate change, population growth and economic growth, having sufficient clean drinking water for the global population will become a major social challenge in the coming decades. We want to enable everyone to have access to clean drinking water and to be as self-sufficient as possible.”

How do you plan to achieve that?

“By developing, producing and selling water purification systems with which people can produce safe drinking water from unreliable tap water, rainwater, treated wastewater or seawater. High-quality purification technology, which we integrate into reliable, intelligent, practical and affordable products.”

What is the best part of your job?

“That our passion for water and water technology can contribute to solving a global problem. Water scarcity is increasing all over the world. Two billion people already have a structural shortage of safe drinking water, and that number is growing every day. The growing demand for clean drinking water is caused by a growth in population and economic growth. Depleting and polluted water sources and climate change are causing the supply to decrease. Drinking water companies are often not capable of supplying safe drinking water. The volumes are too low and bacteria and viruses in the water are causing the quality to be unreliable. This is unacceptable. Safe drinking water is a fundamental human right.”

You also own Mijn Waterfabriek. What kind of a company is that?

“Mijn Waterfabriek supplies systems that are aimed at preserving drinking water by using rainwater and reusing wastewater. This makes companies, business parks, houses and residential areas climate proof, water-neutral or even a source of water, and prevents the waste of precious drinking water.

What is the most memorable moment of your career?

“That after years of employment—which I thoroughly enjoyed, mind you—I started my own business, and to see my ideas become tangible products that actually help people.”

Johan Bel

Remember this? Rik Bomer, B.Sc, who graduated from the Van Hall Larenstein University of Applied Sciences at the WaterCampus in Leeuwarden, travelled from Spain to Friesland by bicycle in five months. He is looking to answer the following question: How happy are fish in Europe? During his *Happy Fish Journey*, Rik met with water technologists, fish experts, migration specialists and of course farmers and other interesting people. Rik is now back home and showed us his photo album.

On the road with WaterProof

Spain, Segovia, mid-April:
The moment of realization that I am cycling through Spain and I have nothing planned for the first time during my trip. Just cycling and seeing what the day may bring; ultimate freedom!

France, Barrage du Vezins, late May:
This dam, located at the south-western tip of Normandy, will be demolished in 2019. The river will be able to run its course again, which will improve the water quality and in turn all the aquatic life in the river Sélune.

How happy are fish in Europe?

Wales, Llanidloes, mid-June:
Standing at the source of the 354 kilometres long river Severn, I was surprised that this tube regulates the PH (acidity) by pulverizing limestone. Acidic water causes small organisms to die and algae take their place. This results in oxygen-poor water, and aquatic life in the river suffocates. I had never thought of this.

The Netherlands, Zeeland, Brouwersdam, early August:
The Grevelingen lake; my first official stop in the Netherlands. The moment I started thinking of home again. The lake is a typical Dutch lake. Where there used to be a river mouth, the Dutch controlled it and closed it off. Nowadays the lake is kept artificially salty, which helps control the water level.

Belgium, Gent, late June:
When my girlfriend came to visit in Belgium, I was able to tell her exactly how the river Leie–on which we went canoeing–was constructed and where there is room to improve the management of agricultural land for the benefit of the water quality. It was at this point that I realized how much I had learned throughout my trip.

The Netherlands, Friesland, Kornwerderzand, mid-August:
The end of the journey, the Afsluitdijk with the symbolism of the future fish migration river. An artificial, five-kilometre river of brackish water that makes the crossing between the Wadden Sea and the IJsselmeer accessible to many fish species. By cleverly handling tides, locks and sluices, the IJsselmeer will remain as fresh as ever for the supply of drinking water.

IJsselmeer more salinated than expected

photo Dominicus Johannes Bergsma, wikimedia

"I see the IJsselmeer as a kind of Egyptian tomb that we are now re-examining. Until five years ago this was the most forgotten stretch of water in the Netherlands", said Sander de Rouwe, Member of the Provincial Executive of Friesland, during the IJsselmeer Summit at the WTC in Leeuwarden this past September. Experts from Rijkswaterstaat and Wetterskip, among others, discussed the problems, possibilities and future of the lake.

The IJsselmeer Region is regarded as the centre of the Dutch water management system. Or better said: the treasury of Dutch freshwater. The lake is home to special treasures of natural and cultural history. The Aflsuitdijk (Enclosure dam) has provided safety throughout the area and has made land reclamation possible. A freshwater supply has also been created, which benefits agriculture, industry and nature in a large part of the Netherlands. Society uses the lakes and banks for a variety of activities, including recreation, drinking water extraction and shipping. Paul van Erkelens, chair of water authority Wetterskip Fryslân, spoke about the problems caused by the drought last summer. The salinization of the IJsselmeer was the biggest surprise, he says. "The water has become much saltier in various places. The salinization is caused by not being able to drain from the IJsselmeer into the Wadden Sea for a long time." We are currently investigating how such situations can be prevented in future.

During the Summit, Delta Commissioner Wim Kuijken was appointed an honorary citizen of Wetterskip Fryslân because of his merits in water management. Among other things, he spoke about the dangers of rising sea levels. "Several studies show that sea levels will rise faster after 2050. Nobody knows exactly what that will look like and what measures we need to take. We have been raising the dykes for years, but it is also important to look for other forms of protection." The day wrapped up at the Afsluitdijk Wadden Center in Kornwerderzand, where participants were invited to experience an interactive exhibition. "An IJsselmeer Summit is successful if all kinds of different parties can learn from each other", De Rouwe stated. "That certainly went well today."

Water Test Network

Start of the European Network of living labs

“You have a great idea which you translate into a wonderful prototype. But then comes the crucial question: does it work? To determine this, it must be tested. This is complicated, because you do not own a testing facility.” With these words, Jordi Moreno, R&D process technologist at REDstack and project manager at the Centre of Expertise Water Technology (CEW), outlined a highly recognizable problem for many SME business owners. But, now there is a solution: the (international) Water Test Network. The official opening was in Brussels on December 11.

Moreno held this talk at the European Water Tech Week (#EWTW2018), in Leeuwarden late September, during a parallel session on the financing of knowledge valorisation through the use of applied research. Moreno then explained all about Living Labs for the Water Innovation Demonstration Exchange (LL4WIDE). In view of the very long name, the project was soon renamed the Water Test Network.

The goal of the project is to create a European network of testing facilities where SMEs from Northwestern Europe can test, demonstrate and develop their innovations. “This will support SMEs in accelerating the market introduction of their technologies. The support consists of assistance with the validation and verification of products and financing”, says Stefan Bergsma, who coordinates the matchmaking and promotion on behalf of the Water Alliance.

The Water Test Network project group has developed so-called ‘innovation support vouchers’ with a value of up to €50,000. These vouchers give the right to support that includes market research, access to a testing facility and help with validation and verification.

In addition to the Water Alliance, CEW is also a partner in the project. Both are part of WaterCampus Leeuwarden, which also includes five demo sites where companies can perform tests. CEW is the knowledge and innovation centre for applied research and product development in the field of water technology. The organization combines expertise from education, research, government and companies.

The project is financed by the Interreg North West Europe programme. For more information on the various testing facilities and the application process for the vouchers, go to www.nweurope.eu/water-test-network. You can also remain up-to-date on the project via Twitter @WaterNetwork_EU and LinkedIn WaterTestNetwork.

Interreg North-West Europe
Water Test Network
European Regional Development Fund

INNOVATIVE PRODUCT SEMIOTIC LABS PROVIDES ALERTS FOR IMMINENT FAILURE OF PRODUCTION RESOURCES.

Innovation Semiotic Labs

'COMBINING STANDARD EQUIPMENT WITH ALGORITHMS TO CREATE HIGH-END SOLUTIONS; THAT IS WHAT IT IS ALL ABOUT'

Semiotic Labs supplies sensors and algorithms that convert data into information about when and why production resources fail. The result: more control, lower costs and more time to do other things. That translates to acceleration for companies. The water technology industry—including water boards, Vitens and Evides—is now also calling on the innovative company from Leiden, the Netherlands. We thought it was high time to meet in person. WaterProof spoke to director Simon Jagers.

'It is great to see our sensors in operation in a factory full of large, stamping machines.'

How did you get the idea to base your business on algorithms and data?

"After reading a book about the development of an algorithm that mimics the functioning of the brain. Soon the idea arose to apply this concept in the industry, where machines generate more and more data. Based on analyses by self-learning algorithms, you can use this data to provide information about the condition of machinery. Consistency in data input is the key to consistent reliability. That is why we have developed our own sensor technology, which allows us to both control data quality and to provide consistent and accurate predictions and insights. Our systems ensure lower costs, better performance and peace of mind."

How unique is your product?

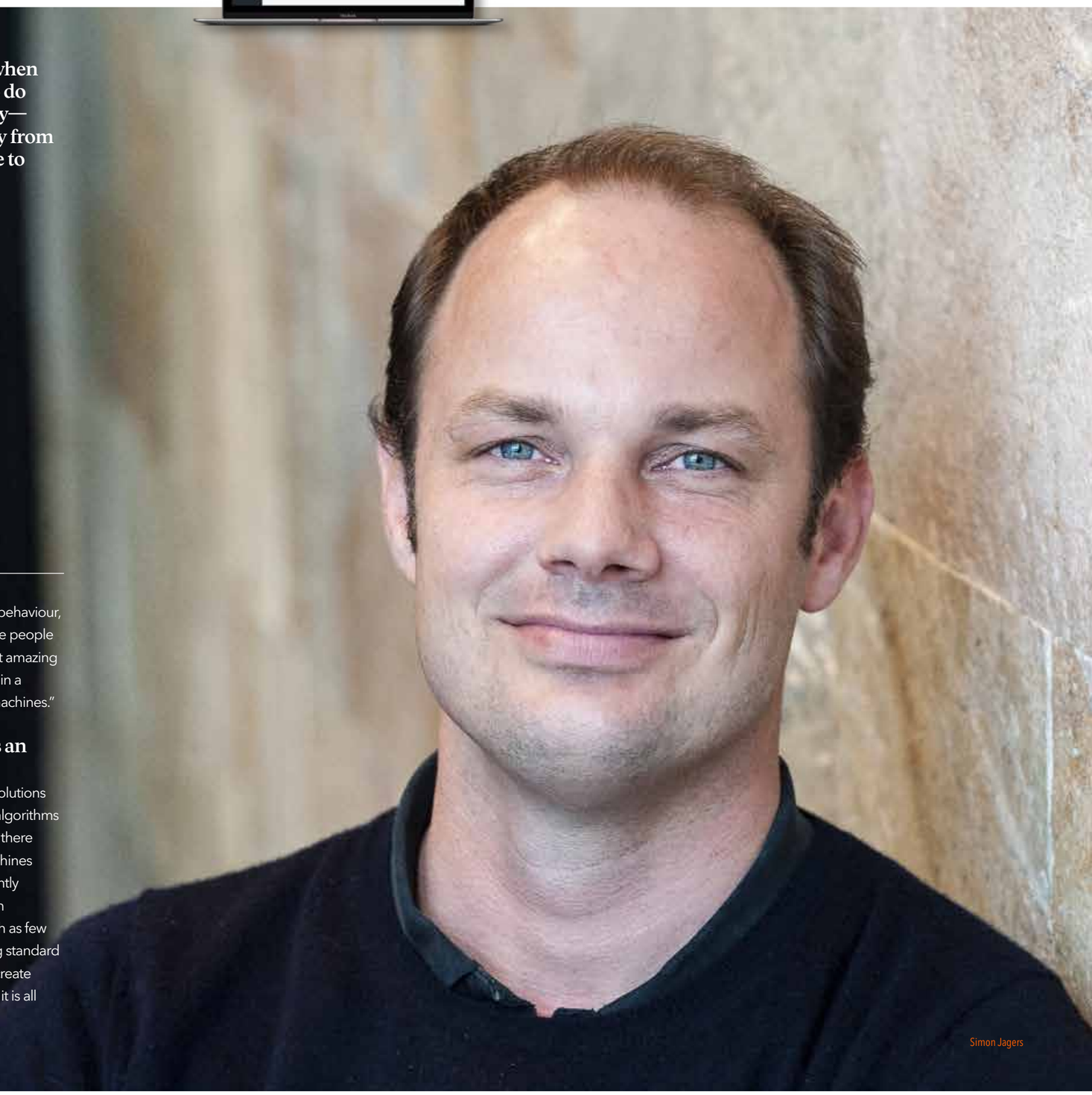
"Globally, there are two other parties using current and voltage analysis for condition monitoring purposes. These parties charge a factor of 10 more for supplying the solution. We are currently quite unique. From the start, we focused on using as many standard components as possible, a low price for the hardware components we develop ourselves and ease of use for end users."

What do you like best about being an entrepreneur?

"It's a huge rush to discover that we can predict some defects months in advance. Especially because we use high-tech in an industrial world. It is much more fun to use data science to monitor 'real' machines than to use the same technology to analyse internet behaviour, for example. "I am sure there are people who think differently, but I find it amazing to see our sensors in operation in a factory full of large, stamping machines."

What is your dream as an entrepreneur?

"Coming up with nice, simple solutions for which a soldering iron and algorithms go hand-in-hand. In my dream, there is a large warehouse full of machines and sensors and we are constantly experimenting with how we can guarantee 100% availability with as few sensors as possible. Combining standard equipment with algorithms to create high-end solutions; that is what it is all about."



Simon Jagers

‘We offer high quality and believe in what we do’

Robert van Voorst | photo Martina Ketelaar

Around the world with Titan Salt

Titan Salt wants to bring innovation and sustainability to the salt industry with new and improved techniques. The young company made a good start for itself last year and wants to continue working its way up in 2019. WaterProof Magazine interviewed director Robert van Voorst.

We spoke to Van Voorst only hours after his return to Dutch soil. He had just landed after a business trip to Indonesia. Before flying to Indonesia, he attended the Roskill Salt Asia 2018 Conference in Hong Kong on behalf of Titan Salt. Van Voorst is alert with not even a hint of jetlag. “Titan Salt is now active all around the world”, he says. “In Indonesia, we discussed a project which combines a variety of technologies. Part of it is seawater desalination, but it is also aimed at generating electricity. Titan Salt is going to be a technical partner and main supplier for the project.”

Titan Salt is working to innovate and increase efficiency and sustainability in salt production. The company designs, constructs, and modifies equipment, installations, and even entire salt plants. It is basically involved with anything and everything involved with salt production. The increasing importance of sustainable production makes it especially important to produce the purest product possible with minimum waste. Titan Salt supplies innovative systems for salt production and industrial wastewater treatment. In addition to an office in Sneek, the Netherlands, where the company’s roots lie, it also has an office in Aurora, a stone’s throw away from Chicago in the United States.

Fireman

It is no coincidence that Van Voorst is where he is today. He was destined to be an entrepreneur from an early age. “As a child, I didn’t want to be a fireman or a football player, I wanted to be a director”, Van Voorst says with a smile. “Back then, I didn’t care what I would be director of, but after finishing my MBA, it wasn’t long before I discovered the world of salt. I started as a project manager at NNRI in Sneek; they supplied equipment to various industries, including the salt industry. In 2002, I started Titan Projects along those lines for myself.”

Titan Projects provides equipment and system building to the chemical, petrochemical, and food industries, but Van Voorst wanted to do more with the expertise in salt. The mining of natural products is under pressure in many areas. There are shortages and the impact on nature is under debate. Salt mining is no exception; changes are necessary to allow it to continue responsibly in the future. That is why Van Voorst and his team launched Titan Salt in 2016. Its goal: the development of innovative techniques which improve sustainability and efficiency in salt mining.

The power of the Water Alliance

It took a while for Titan Salt to gain traction, but it suddenly took off last year. “We are a young company with progressive ideas”, says Van Voorst. “The market is growing, but not many companies are doing what we do. We offer high quality and believe in what we do, which makes us an excellent partner. It also helps that we are a member of the Water Alliance. It’s great to see how all the different disciplines find, complement, and reinforce each other. This broad network which offers a complete consortium of different technologies and ideas is extremely powerful.”

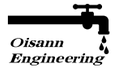
MATCHMAKING TO THE MAX

Matching supply and demand is generally an intensive activity. Water Alliance representatives attend many events and trade fairs every year in search of opportunities for water technology entrepreneurs to accelerate their business development. Last November it was Barcelona's turn for a visit as we went to iWater for the first time. A couple of things caught our eye there, so we asked some of the participants for their opinion.

The fact that the trade fair was combined with the Smart City Expo in the adjoining hall was a huge advantage, according to Water Alliance director Hein Molenkamp "There was a lot of traffic about at both trade fairs and this created a particular interest in applications in sustainable water technology innovations for new neighbourhoods."
Sabine Stuiver of Hydraloop, a Dutch company, agrees. "Yes it was busy. The link with the Smart City Expo and the Dutch Pavilion certainly provided us with interesting leads."
Brigitte Duffhues participated in the matchmaking programme by ÉÉN North—a Water Alliance partner—on behalf of Ecoloro. She too was satisfied. "iWater is a high-quality trade fair and offers good insight into the players and technology in the Spanish market. The matchmaking was well organized and the combination with the Smart Cities Expo resulted in a magnificent international platform", says Duffhues. We also met with cluster organisations such as CLIQ, the new international cluster organisation for the chemical industry, and the Catalan Water Partnership (CWP). Molenkamp met eight members of CWP who were all very interested in collaborating with Dutch companies. "I also noticed that investors are starting to take an increasing interest in the water sector. That was very different a few years ago", says Molenkamp.

'investors are starting to take an increasing interest in the water sector'

Members of the Water Alliance

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