

waterproof

Water Alliance magazine

#1, 2022

**INNOVATIVE
SOLUTIONS
FOR NORTH
AMERICA**

**ROCK 'N ROLA
WITH ROLAPAC**

**FROM
INVENTIONS
TO INVOICES**

wateralliance
accelerating business with WaterCampus

contents

08

INTERVIEW
STEVEN VAN ROSSUM
WTEX10: ACCESS TO AN
INTERNATIONAL MARKET



10

**INNOVATIVE
SOLUTIONS FOR
NORTH AMERICA**
WATER ALLIANCE'S STEFAN
BERGSMA ON
PROJECT EU
TECHBRIDGE

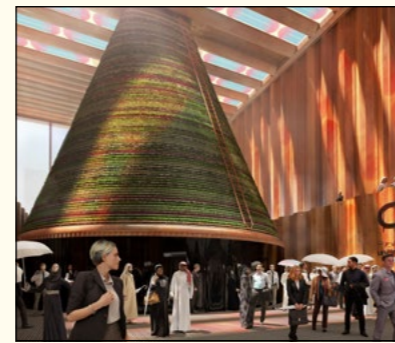
12

ROCK 'N ROLA
SMART SOLUTION
TO FLOATING
SCUM LAYER
PROBLEMS WITH
ROLAPAC



16

**FROM INVENTIONS
TO INVOICES** INTERVIEW
RONALD WIELINGA



18

**SEEDS ARE STARTING
TO SPROUT** DUTCH WATER
TECHNOLOGY ACTIVE IN DUBAI



20

INTERVIEW
FLOTTWEG CEO
LISELOTTE VAN DONSELAAR

and...

- 3 Column by
Hein Molenkamp
- 4 Short Cuts
- 6 Circular Economy:
a Key Role for
Membranes
- 7 Water tech Europe
Trade Fair
- 7 News Flash:
WIS Award 2022
- 14 The Water
Technology
Innovation Chain
- 15 Three Questions for:
Menno Bakker
- 15 News Flash:
Colubris Cleantech
Takes Over BLUE-tec
- 22 Members of
Water Alliance

colophon

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.



WaterProof magazine 03_2021

Cover Photo

Matheus Bertelli | pexels.com

Editor in Chief

Menno Bakker

Journal Management

Menno Bakker,

Narvic Media | narvic.nl

Translation

Presence Translate & Interact

Graphic Design

Jan Robert Mink | minkgraphics.nl

Photography

Nico Pakvis, Lucas Kemper

and many others

Printer

Drukkerij Van der Eems



Inspiration

Nothing is set in stone just yet, but there appears to be light at the end of the tunnel known as the coronavirus pandemic. It's not going away, but it will hopefully become manageable for society and the economy. In any case, the Water Alliance is already preparing for various exhibitions and events and the organization of our WIS Award, as well as the European Water Tech Week Leeuwarden 2022, which will be held in Leeuwarden from 19–22 September 2022. In 2018, the first edition of EWTW attracted over 1,000 professional participants from 38 countries, and we hope and expect that the coronavirus will be sufficiently under control later this year, allowing anyone who wants to travel to the Netherlands to do so safely and relaxed. Also, new this year is an expanded Water Tech Europe Trade Fair alongside the conference. Make sure to mark this event in your calendar; we will be ready to welcome you in September.

If we have learned anything from the pandemic, it is the power and importance of science, and how essential it is to rely on that. In the water sector, this includes 'big brown data' to help map out infection hotspots and new technologies to detect viruses. Science and innovation are not only important in fighting a pandemic but also in making our world more sustainable. It is extremely inspiring to see how water technology companies have continued developing innovations in the past year that will benefit the world. Water Alliance has played an important role in developing these innovations and bringing them to the market for more than ten years, and I am proud of the many results we have helped produce. You can read about that in WaterProof magazine or watch the stories on our YouTube channel, WaterProof tv. We find it inspiring to document all these great stories, and I wish you the same inspiration as you read them

Hein Molenkamp
Managing Director, Water Alliance



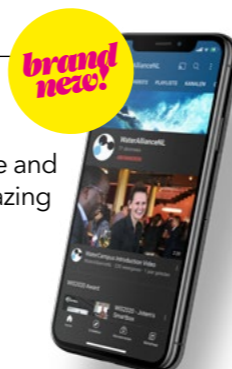
photo ©Marcel J. de Jong

SHORT CUTS

NEWS FROM THE AROUND THE
WORLD OF WATER TECHNOLOGY

WaterProof TV:
Subscribe now!

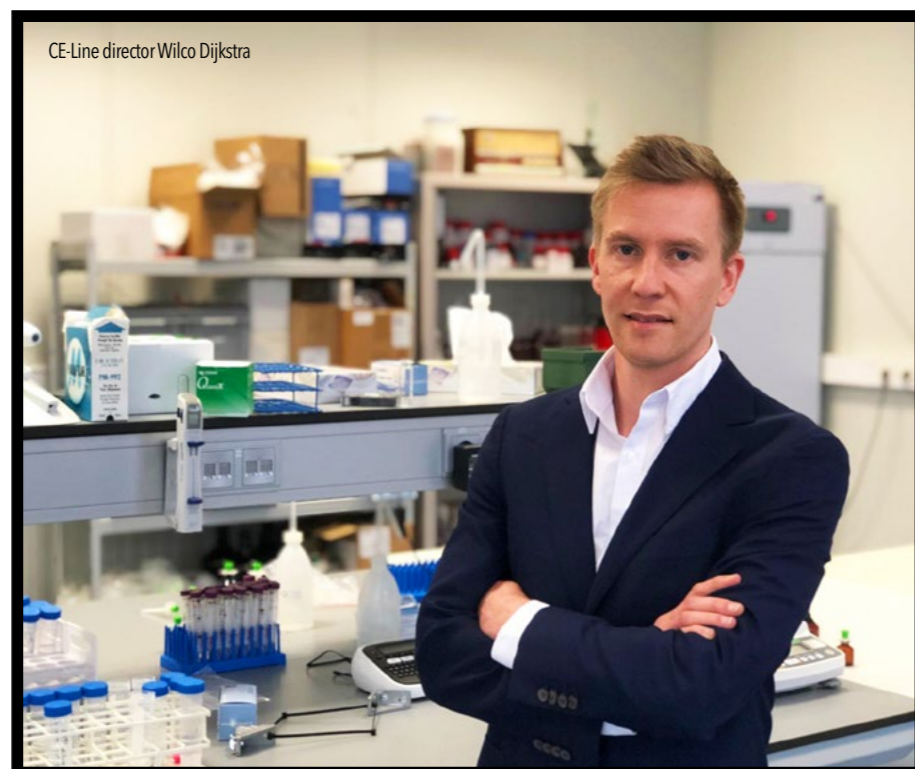
Scan this QR code and
get access to amazing
content!



NEW FUND INVESTS IN WATER QUALITY MEASURING SYSTEM FOR GREENHOUSE HORTICULTURE

CE-Line is the first company to receive funding from Netherlands Enabling Water Technology (NEW), a national, sector-specific fund managed and operated by NOM (Noordelijke ontwikkelingsmaatschappij). The startup from Heerenveen developed a new water quality measuring system for the greenhouse horticulture sector. CE-Line was submitted for nomination to the fund's investment committee after its innovative concept caught the eye of the NEW consortium, which consists of the knowledge institutions Wetsus, Deltares and the University of Groningen (RUG).

It was a good start to the year for CE-Line director Wilco Dijkstra: "NEW Fund funding is crucial fuel to get our measurement system ready for the market", said the entrepreneur. According to Dijkstra, the horticultural sector has a strong need for their



innovation. "After successful trials at a Wageningen University & Research test site, last year's field trials at a large plant breeding company also proved promising. Where growers currently have their greenhouse nutrient feedwater tested at an external laboratory on a weekly or biweekly basis, our measurement system allows real-time measurement of the various nutrients in the water."

With CE-Line's technology integrated into greenhouses' irrigation systems, up-to-date data can be continuously collected, helping growers easily and quickly adjust the required nutrient concentrations. "This enables growers to achieve exactly the right nutrient balance in their feedwater under all conditions", explains Dijkstra. "Not only does the measuring system fit well with increasing digitalization in high-tech greenhouses, but the level of control and the stability of the nutrient water also lead to increased yield and higher

quality crops and fruits. Working daily with more sophisticated greenhouse nutrient feedwater also reduces fertilizer and water consumption."

The innovative measurement system also garnered positive attention during its development phase: in 2020, CE-Line's technology won the GreenTech Innovation Concept Award, and last fall, the startup was included in the HillenraadTECH50 as one of the most promising companies contributing to the future of greenhouse horticulture. "The most important part is the positive signals from our potential customers", emphasizes Dijkstra. "Growers are enthusiastic, and we see serious interest in our product from the market. All the signals are green—it now comes down to refining our prototype and getting the system ready for sale."

SHORT CUTS

NEWS FROM THE AROUND THE
WORLD OF WATER TECHNOLOGY



FERR-TECH: PARTNERSHIP WITH VIVOCEM



Pictured: left Richard Bruins (CEO of Ferr-Tech) and right Ronald IJzer (CEO of VivoChem).

Ferr-Tech, a member of the Water Alliance, entered into a partnership with Dutch company VivoChem (Almelo) in late January. The collaboration makes ViVoChem a preferred distribution partner of the powerful and environmentally-friendly oxidant FerSol (Ferrate (VI) in liquid form).

We previously published an article in WaterProof about the benefits Ferr-Tech offers: their product FerSol makes residual water so pure that it can largely be reused in the production process. The benefits to the user are: reusing water, reduced discharge costs because discharged water is cleaner, replacing large amounts of harmful chemicals, and energy savings, because cleaning can be done at lower temperatures. ViVoChem's ambitions also focus on making industrial processes more sustainable and using green chemistry.



PURE WATER GROUP AND AUSTRALIA



Pure Water Group, a member of the Water Alliance, is set to build a continuous electro deionization (CEDI) system to produce ultrapure water for its Australian partner MAK Water, an experienced supplier to the oil and gas industry. The CEDI system will be part of the water treatment plant for the Waitsia gas project, one of the largest onshore gas fields ever discovered in Australia.

CEDI was selected as a proven and sustainable technology for producing Ultrapure water. Unlike traditional ion exchange technologies, which require chemicals for regeneration, the CEDI process is continuously regenerated using direct current. This is key for remote sites, as it eliminates the need to transport chemicals to the site and the safety and environmental concerns associated with handling and disposing of hazardous chemicals and chemical waste.

CONFERENCE IN HONOUR OF FIFTY YEARS OF PIONEERING TECHNOLOGY IN THE NETHERLANDS

Circular economy: a key role for membranes



The conference included presentations by:
Prof. Karin Schroën (University of Wageningen and University of Twente), Prof. Walter G.J. van der Meer (University of Twente) and Prof. Kitty Nijmeijer (Eindhoven University of Technology).

After fifty years, the membrane technology has come of age. This was the conclusion of developers, producers and—mostly industrial—users after spending a day at WaterCampus Leeuwarden exchanging views on the history, usefulness and necessity of membranes. Opinions on the future of the technology proved to be mixed. While some expect membranes to supersede all other purification methods in the long run, others predict a future in which various techniques will increasingly reinforce each other. Everyone there agreed on one thing, at least: membranes will play a key role in establishing a circular economy.

On a damp autumn day, a hundred interested parties travelled to Leeuwarden from all over the country. André Mepschen, Business Developer National at the Water Alliance and co-organizer of the event, was pleased: “It was great to see developers, educators, and many industry representatives here today. Membrane technology is currently seen as the technology that enables you to purify water and produce new raw materials. The latter is becoming increasingly important throughout society, which shows in today’s turnout.”

Footprint

Raw material production is also helping membrane technology mature, said Harry van Dalfsen, who has earned the title of membrane pioneer with his company Wafilin Systems. “When we started under the name Wafilin in 1972, there wasn’t much in the way of social interest. The technology was still in its infancy and relatively unknown. Today, it is safe to say that we could no longer live on this planet without membranes.”

And many discussions indicated that the future for membrane technology might be even brighter. Henk Schonewille, CEO of Wafilin Systems, was pleased: “In our pioneering years, membranes were primarily used to purify water and thicken liquids. There is a global awareness that humans need to produce and live differently to reduce our footprint. Eating less meat, for example—which will require meat substitutes. A good meat substitute needs enough protein; nowadays, you can get that from wastewater from the potato industry or broccoli stems. What was once strewn as pig feed is now cherished by humans as a new source of healthy nutrition. We were pleased to see so many major players in the food industry in attendance today.”

Thickening

The membrane filter has a new role in the industry, with incredibly broad applications, Mepschen outlined once again. “It is not one single industry; there are numerous segments that each have individual needs. A potato

processor like Avebe uses membranes to extract protein from its wastewater. That protein can be reused. Other parties may benefit more from thickening liquids, if only to reduce transportation costs and, in turn, CO₂ emissions.”

Doeke Schippers of Vitens confirmed the latter. His organization extracts humic acids from water. “Humic acids are usually thought of as a collection of organic substances that make the soil fertile for plant growth, but they are also present in water; Vitens extracts them to provide clean drinking water”, said Schippers, in charge of extraction and purification at Vitens. “That requires membranes. The benefits here are twofold: on the one hand, we can supply clear drinking water, but using membranes, we can also thicken the extracted humic acid by a factor of twenty, which makes it much easier to dispose of. Without thickening, we would have to run a truck every day—now we only need about one a month.”

WATER TECH EUROPE TRADE FAIR

THE EUROPEAN WATER TECH WEEK LEEUWARDEN 2022 IS AN IMPORTANT EVENT FOR MANY WATERPROOF READERS. FROM 19 TO 22 SEPTEMBER 2022, THE GLOBAL WATER TECHNOLOGY SECTOR WILL GATHER IN LEEUWARDEN, CAPITAL OF WATERTechnology FOR THIS EVENT. DURING THE EUROPEAN WATER TECH WEEK, BUSINESS AND INNOVATION LEADERS FROM COMPANIES, UNIVERSITIES AND GOVERNMENTS MEET IN THE INNOVATIVE CLIMATE OF WATERCAMPUS LEEUWARDEN.



In 2018, the first edition of EWTW attracted more than 1,000 participants from 38 countries. EWTW 2022 will include the Global Water Tech Hub Alliance, the Wetsus Congress 2022, an international business programme initiated by Water Alliance, and a trade fair. “This Water Tech Europe Trade Fair 2022 is a massive boost for the water sector”, says Water Alliance director Hein Molenkamp. “It gives the European Water Tech Week 2022 even more of an impact.”

Follow the latest developments about the European Water Tech Week Leeuwarden 2022 on ewtw2022.eu

TRADE FAIR

WTC Expo Leeuwarden organizes the Water Tech Europe Trade Fair 2022 in close cooperation with WaterCampus Leeuwarden.

EXHIBITOR PROFILE

Water Tech Europe welcomes national and international exhibitors from different water technology-related sectors and markets:

- Healthcare
- Wastewater management
- Drinking water
- Energy
- Food
- Chemical
- Agricultural
- Cross-sectoral, circular economy and others

VISITOR PROFILE

Water Tech Europe focuses on professionals from the following sectors:

- Professionals employed in the water sector
- Industrial suppliers Science and Educational sectors
- Utility construction and project development
- Business water sector/cross sectoral
- Students in the water and environmental sectors

news
flash!

Coming up: WIS AWARD 2022

A prize with a complicated name: The Water Alliance Innovation Stimulation Award. It’s quite the mouthful, so we abbreviate it to ‘WIS Award’. It is a well-known award to many people, both in the Netherlands and internationally.

Previous winners of this award for the most promising innovation in water technology have seen a rapid acceleration in brand growth as a result. Some examples include Wafilin Systems (see image; wow, this was back in 2017!), Hydraloop and Samotics. Participation is an adventure in itself. Pitching. Large audiences. Publicity. Cameras.



From the archives: Wafilin Systems winning the WIS Award 2017

A complete list of participants and information was not yet available when this magazine was produced, but follow regular updates at wisaward.nl

wateralliance
innovation
stimulation
award2022



Steven van Rossum

PROGRAM AIMS TO SUPPORT SYSTEMIC GROWTH OF DUTCH WATER TECHNOLOGY EXPORTS

WTEX10: Access to an international market

WTEX10: It sounds like a cryptic code to unlock a secret message. While it certainly involves access, it is, instead, the key to foreign markets. In other words: WTEX10 aims to increase exports in the water technology sector.

Steven van Rossum is the programme manager on behalf of the Ministry of Economic Affairs and Climate Change and the Water & Maritime Top Sector. He looks back on the past year and takes us through future developments...

“Last year, we started down three different paths to increase Dutch water technology exports”, says Van Rossum. But what are these paths? He explains that the first path is called Jointly Improving Market Access with Focus. “Rather than going on a wild, international acquisition spree and seeing how it turns out, we target promising countries and thoroughly analyze their markets before launching there. In the project’s first phase, the participating companies selected Spain and the United Kingdom.” The second path is called Creating the Integrator. The aim is to offer a complete ‘Water as a Service’ pathway. Van Rossum explains what that is and what its added value is. “Our consortium offers Water as a Service as a comprehensive solution from design and financing to operation & maintenance. Our full-service approach enables the Dutch water technology sector to serve a different market segment. Order and export volumes are expected to increase as a result.” The third and final path is Synergy in the Chain. In foreign projects, there is often little synergy between internationally successful Dutch engineering firms and the Dutch water technology sector. Van Rossum: “This can and should change. Collaboration benefits both parties. Without synergy, we are missing out on opportunities.”

Critical success factors

The tracks are fuelled by activities relating to branding, market intelligence, collaboration and access to funding—four critical success factors which are indispensable to improving

exports. “Branding is about promoting Dutch water technology expertise internationally with innovative micro-marketing techniques”, explains Van Rossum. “Market intelligence involves building and unlocking market knowledge through collaboration with local partners and companies. Collaboration, the third power source, is focused on finding potential consortium partners. Finally, access to finance is about improving access to the right financing tools and, above all, finding shortcomings in the availability of financing and addressing them with the financial sector and the government.”

‘Our mission to the UK was very successful’

We currently have processes underway in the United Kingdom and Spain. “Our carefully prepared physical mission to the UK, in particular, was very successful”, states van Rossum. “The participating water technology companies obtained valuable contacts and leads during the mission. It has already resulted in an order for one of the participating companies. They are going to work for a British water company.”

Agility makes you stronger

Regarding what he believes to be the greatest gain, he states: “We were able to translate a piece of paper—a thought—into concrete action. It was and is a process of trial-and-error. The feedback we receive from business owners in the reviews is that they appreciate that our approach is not set in stone. We are constantly looking at what is and is not working. It’s important not to get stuck in something for too long—to make timely adjustments where necessary. Agility makes you stronger. You can react faster and prepare for specific developments.” He continues, “our energy is focused on creating a proven method to grow Dutch water technology exports systematically. An approach supported by smart market intelligence techniques, marketing and communications and branding, but also by industry collaboration and effective financing instruments.” In addition to the participating companies, the programme organization consists of individuals working at the Ministry of Economic Affairs (EZK), the NWP, FMO, RVO, Atradius, Water Alliance and embassies in the UK and Spain. That is no coincidence. “Our organization’s composition secures knowledge, methods, network and experience”, Van Rossum says. “That, too, is extremely valuable—after all, it must have a lasting effect.”

To learn more about this programme and its further course, please contact Steven van Rossum: steven@crossum.com

PROJECT EU TECHBRIDGE

INNOVATIVE SOLUTIONS FOR NORTH AMERICA

Stefan Bergsma is an international project manager for the Water Alliance. His attention is focused on connecting Dutch water technology companies to opportunities, projects and partners outside national borders. The European EU Techbridge project is a great example.



“EU Techbridge is a collaboration with four partners from Sweden, Denmark, Spain and Italy”, says Bergsma. “We connect innovative European SMEs with North American parties that have specific technology needs or issues relating to energy and water.”

How do you address that?

“We organize a matchmaking process to match the right European companies with the North American end user’s issue. The selected companies can use travel vouchers that reimburse part of their travel and accommodation expenses. We also support European SMEs with practical issues related to doing business in the US and Canada.”

Why is this project important?

“The project provides business opportunities for the Dutch water technology sector in the often tricky North American market. Dutch companies can offer their solutions, and North American end users can select Dutch companies for follow-up discussions based on the presentations to discuss collaborative opportunities. We identify clear-cut business opportunities and leads for Dutch water technology companies in an extremely interesting market.”

The knife cuts both ways, doesn’t it?

“Absolutely. On the one hand, Dutch water tech companies are put in touch with existing issues and technology needs and, therefore, business opportunities in North America. On the other hand, the project is important for North American parties with a water or energy-related issue. This project may help them find highly innovative solutions to big issues.”

What are the results?

“So far, the main result is that several European companies—including some Dutch ones—have been allowed to present their business and solutions to North American end users and are now discussing cooperation with those parties. Great steps have been taken.”

Do you have any examples?

“Sustainability goals are an example. A wastewater processor or a drinking water company is looking for a company that can help them achieve their sustainability goals. They want to reduce water consumption or reuse raw materials, for example. The energy theme involves making the built environment more sustainable. Dealing with extreme weather is another theme. The client can also be an industry that wants to be more efficient and sustainable in its use of energy and water.”

What is most inspiring to you about this project?

“That there are so many small, innovative companies in Europe with solutions to global energy and water issues. The response from our North American partners speaks volumes. They state that the project has introduced them to innovations they did not know existed, and that is incredibly inspiring.”

You travelled to Vancouver and Chicago for EU Techbridge. How did you experience that?

“It was very enriching. It is important to see the issues on-site, as you can then find an even better link with the businesses at home. It increases the chances of a successful match. I love different languages and other cultures as well. I lived in Hong Kong for six months while studying international relations; it was an amazing experience.”

To read more about EU Techbridge, scan these QR codes.



[Editor’s Note: When we talk about North America in this story, we mean the US and of course also Canada!]

SMART SOLUTION TO FLOATING
SCUM LAYER PROBLEMS IN
SEWAGE PUMPING STATIONS

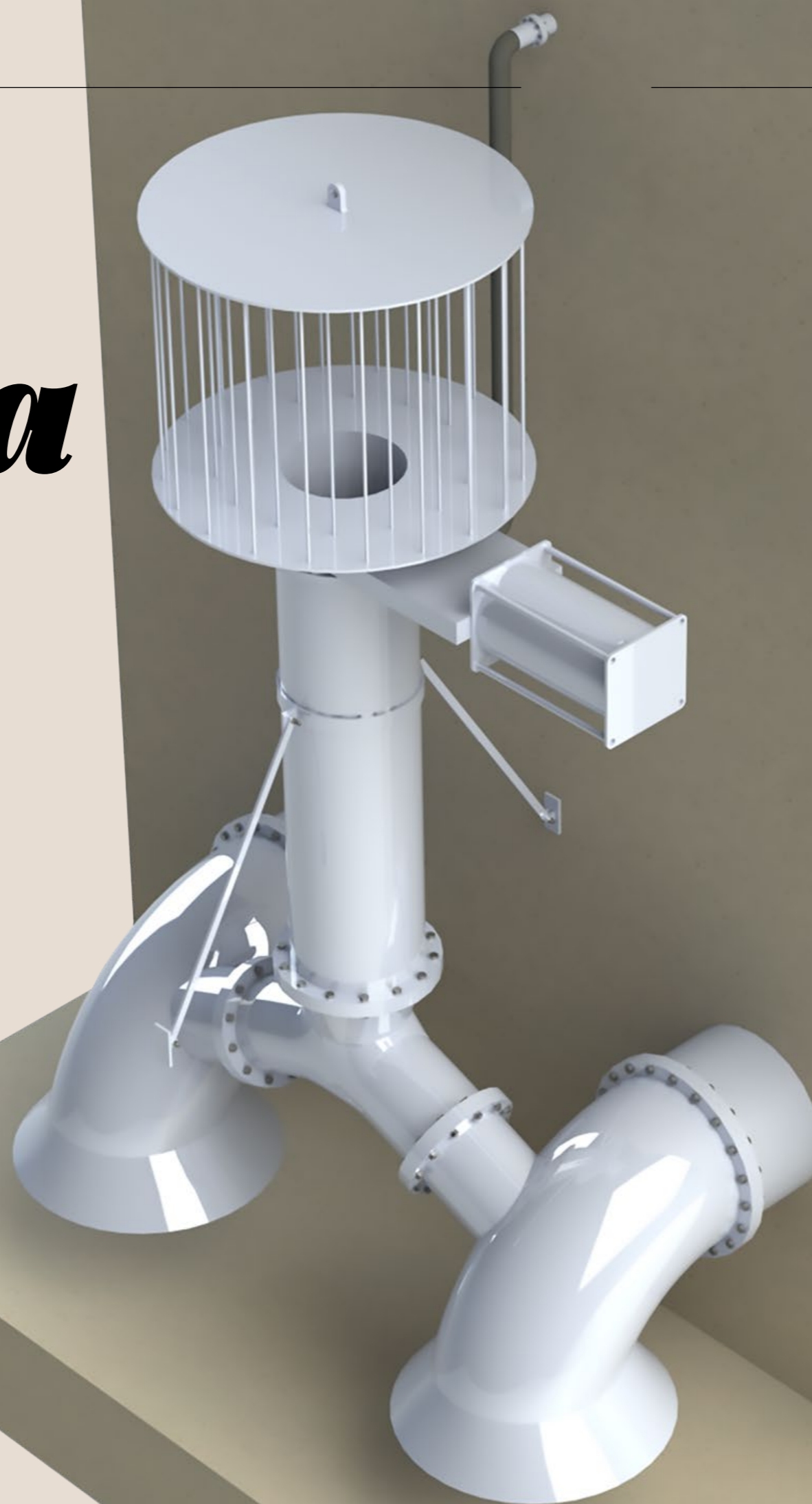
Rock 'n Rola

The accumulation of floating debris in sewage pumping stations is a major problem for an increasing number of operators. The Rolapac is the solution, according to Rob Spaans and Laurens Verberne. Biggest gain: reduced cost, reduced CO₂ emissions and increased biogas yield. The innovation earned them a nomination for the Aquatech Innovation Award.

WHAT IS FLOATING SCUM, EXACTLY?

Laurens Verberne explains that urban areas are increasingly faced with floating scum layers in sewage pumping stations. Grease, wet wipes and other waste that does not belong in the sewer clump together. The floating layer must be removed regularly to avoid problems. This is usually done with diesel-powered vacuum trucks, which is far from ideal, says Verberne. "Sewage pumping stations are often located in residential areas. Maintenance can be quite burdensome for a neighbourhood. A truck with its engine running, the smell of diesel—people would rather not have it there. The post-cleanup process is also not great. The waste is disposed of at waste incineration plants. It is a CO₂-intensive job with high cleaning costs."

'MAINTENANCE CAN BE
QUITE BURDENSOME FOR
A NEIGHBOURHOOD'



Rob Spaans (left) and Laurens Verberne

ONE ANNUAL CHECK

Technical man Spaans devised a floating scum remover. The Rolapac makes maintenance more sustainable and vastly reduces the cleaning costs for sewage pumping stations. The system can be installed in a single working day and is integrated into a pumping station's control system. "Our system not only extracts wastewater through the low-level suction nozzles but also an additional opening at the top of the wet well. The system provides for the transport of the 'floating scum layer', alleviating the need for multiple maintenance breaks and professional cleaning every year. A single annual check is sufficient."

WITHIN TWO HOURS

There are other benefits, according to Verberne. "If the wastewater treatment plant includes a biogas plant, the biogas yield will increase. The Rolapac ensures that more wastewater containing grease is transported to the biogas plant. The days of seized pumps are also over, according to Verberne, because wipes and dirt are now fed through the pumps in controlled quantities. The system has been tested in a sewage pumping station in Scheveningen, where floating scum layers were a major problem. Vacuum trucks were called out at least five times a year to remove the waste. "The Rolapac eliminated the need for waste removal for an entire year. After that year, the cleaning crew was done within two hours."

SUSTAINABLE PRODUCT

What's next? Verberne smiles. "The biggest challenge is familiarizing people with our product, both in the Netherlands and in the rest of the world. Accumulating floating scum is not exclusively a Dutch issue. Operators in countries like Germany, Ireland, and Spain face the same issues. Our solution is sustainable and cost-effective." When asked about his motives as an entrepreneur, he answers instantly. "I want to contribute to a sustainable world by offering a sustainable product that did not yet exist." After a brief pause, he continues: "Originally, I studied to be an economist. I worked in sales and marketing for several years. My business partner, Rob Spaans, has a technical background. He runs a construction company alongside Rolapac. We complement each other well— [laughing] in age as well. Rob is 64 and I'm 34. It's funny; Rob was one of my first clients when I was a kid working in sales for a tech company. We stayed in touch. That is also sustainability!"

'OUR INNOVATION IS
SUSTAINABLE AND PROFITABLE'

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.



news
flash!

Colubris Cleantech takes over BLUE-tec

Colubris Cleantech from Winterswijk in The Netherlands (near the German border) has strengthened its portfolio in the field of environmental technology by acquiring BLUE-tec, a specialist in membrane technology. BLUE-tec has been active on the global market for more than six years and has its own research facility in Wageningen. The company designs and builds membrane solutions for industrial and municipal wastewater, industrial processes and manure processing, with a focus on valorisation of residual flows. The acquisition enables Colubris Cleantech to further expand its unique market position as a Dutch system provider of environmental technology worldwide. In addition to its modern factory in Winterswijk, Colubris Cleantech also uses its own service and sales offices abroad. Colubris Cleantech and BLUE-tec are both members of Water Alliance.

SHARED VISION

Frank Tillmann, CEO of Colubris Cleantech: "In addition to the shared vision of building a sustainable future, we strengthen each other in the field of environmental technology. We will now be even more complete in purifying water flows in an energy-efficient, circular way for industry and water boards and in recovering valuable residual flows. Joining forces and expanding our services in innovative membrane filtration technologies also offers great opportunities to quickly anticipate on changing customers' requirements and deliver tailor-made solutions worldwide."

IMPORTANT NEXT STEP

BLUE-tec will continue to operate under its own name with the branch in Wageningen. Lex van Dijk, founder of BLUE-tec: "The acquisition is an important next step for both parties. We have been working together for a long time and we concluded that we add a lot to each other in terms of technology, realisation and market opportunities. We are looking forward to this new cooperation."



Three Questions for Menno Bakker

Who are you and what do you do?

I am a filmmaker and copywriter in everyday life. At Water Alliance, I am primarily the editor-in-chief of WaterProof magazine. I also regularly produce films and video reports on water technology topics.

How does the WaterCampus innovation ecosystem help?

The WaterCampus ecosystem benefits everyone involved. Scientists and research students can conduct **research** and—through that pioneering environment—gain new ideas. The whole ecosystem is fertile soil for those ideas. It allows members to conduct **laboratory research**, as well as test innovations on a large scale in the **Water Application Center**. You can scale up further, to **demo sites**, once the concept has been proven. There are also often customers in the Netherlands or abroad where the innovations can be tested on a real scale. As soon as an innovation seems promising, the Water Alliance is already supporting the processes with advice, **matchmaking** and marketing and publicity. This magazine is an important tool for the latter.

WaterProof is, in principle, Water Alliance's 'corporate' magazine, yet it generally takes a rather independent, journalistic approach. Why is that?

Firstly, the Water Alliance can only do its job well because of that innovation ecosystem. Everyone needs each other: government, science, applied education and the business community. But we are not here to only promote the WaterCampus; all partners here are specifically seeking national and international cooperation. We believe that inspiring content about the WaterCampus and, more importantly, the many interesting companies that are members of Water Alliance, is far more effective than plastering the market with loud marketing slogans. These stories must, therefore, be written from a critical point of view. We find that this gives us confidence in who we are, what we have to say and what we can achieve, such as matchmaking and often even helping achieve the **export** of Dutch water technology.

ENTREPRENEURSHIP MANAGER RONALD WIELINGA

FROM INVENTIONS TO INVOICES



WaterProof readers will know by now that Water Alliance is based on the WaterCampus Leeuwarden from where it supports entrepreneurs throughout the entire process from innovative idea to market launch. That support is not limited to companies located on the WaterCampus; all Dutch water technology companies can turn to Water Alliance for business development and marketing support. Sometimes, this is how genius water technologists are introduced to the many facets of entrepreneurship for the first time. This is how knowledge is converted into business. It is so important that WaterCampus Leeuwarden has appointed an “Entrepreneurship Manager”. Entrepreneurship manager Ronald Wielinga is someone who has earned his stripes in the world of start-ups and scale-ups. An interview with Ronald Wielinga.

RONALD, YOU HAVE BEEN ‘ENTREPRENEURSHIP MANAGER’ AT THE WATERCAMPUS SINCE JUNE 2020. WHAT DOES THAT ENTAIL, EXACTLY?

As the name suggests, my work is all about entrepreneurship. Specifically, about encouraging entrepreneurship in water technology, which includes things like organizing talent programmes for students and researchers to inspire them to start their own business or supporting an SME with international ambitions—and everything else in between. I don’t have to do it alone, thankfully. We have a fantastic team that can help any potential entrepreneur at any stage of their development. What is extraordinary about my position is that I do not work at any of the organizations at the WaterCampus, such as Wetsus, CEW or Water Alliance. I work for all those parties together. My main role is connecting colleagues and outlining the bigger picture.

WHAT DOES THAT MEAN, SPECIFICALLY?

Very specifically, maximizing opportunities for entrepreneurs and aspiring entrepreneurs. We achieve that by giving them access to various elements, namely:

- Talent: the entrepreneurs must have the right knowledge competencies to scale up an innovative product and bring it market. However, as they grow those entrepreneurs also need to a pool of high-quality to ensure that the scale-up proceed unhindered.
- Market: entrepreneurs must have access to the most connected water technology network in the and, through that network and supporting innovation ecosystem to the international water technology market;
- Capital: entrepreneurs must have access to the best possible investors and funds to help them launch and

scale-up nationally or internationally;

- Technical knowledge: entrepreneurs must have access to all the knowledge and collaborative programmes and instruments necessary to develop, scale-up and bring their innovative product or service to market;
- Facilities: entrepreneurs must have access to all the physical facilities (e.g., labs, demo sites incubator) needed to properly develop, scale-up, and bring product or service to market.

To those ends, we have designed a programme on and around the WaterCampus involving all five of these pillars, allowing us to provide entrepreneurs with the right support at every stage of development. To be clear, when I say “entrepreneurs” I am also talking about aspiring entrepreneurs. After all, there are plenty of scientists walking around with promising innovations and the desire to develop their innovation further as entrepreneurs

WHAT WOULD BE YOUR DEFINITION OF ENTREPRENEURSHIP?

For the companies we support through the WaterCampus, it is pretty much always about entrepreneurship related to an innovation. During the Wetsus conference on 4 October last year, I heard a nice definition by Rene Rozendal (Paques Biomaterials) that I think is appropriate here. From inventions to invoices. I would like to add that the water sector is about engaged entrepreneurship—

entrepreneurship that matches the entrepreneur’s intrinsic motivation while also proving crucial for entrepreneurship in the water technology sector. Intrinsic motivation is rarely about money but about solving a societal challenge. We often have to explain to young, passionate entrepreneurs that it is necessary to make money to achieve their goals

YOU COULD SAY: THERE ARE MANY PEOPLE WALKING AROUND WITH GOOD IDEAS, BUT THE ROAD TO MARKET IS OFTEN LONG. AND YOU GUYS CAN HELP SHORTEN AND ACCELERATE THAT ROUTE, IN SOME CASES?

Correct. Doing business in the water technology sector is tremendously challenging. It can take a long time—up to 10 years, on average—to get a new product from laboratory to market. For an entrepreneur, this takes a lot of patience—and deep pockets. We are trying to shorten that time with our ecosystem. For example, we can connect a company to a demo site—a potential customer—early on to help them choose the right business model.

DO YOU HAVE ANY EXAMPLES OF COMPANIES THAT YOU HAVE HELPED ACCELERATE?

We have many. Take Susphos, now based in Leeuwarden. Even before the company existed, Marissa de Boer—its current CEO—participated in the WaterCampus Business Challenge. She was a PhD candidate at the time, and the programme pushed her to develop a business case. In recent years, she and her company have used support in all five previously mentioned pillars, such as financing and using facilities such as the BioBizz hub (at Paques in Balk), the Water Application Center, the Demo sites and the Johannes de Doper Business Centre. She also made use of the WaterCampus network. She has already won multiple outstanding awards, including, most recently, Frisian Startup of the Year. Another example is CE-Line, from Heerenveen. CE-Line is an exemplary company that develops groundbreaking technology for greenhouse horticulture. Wilco, the CEO, participated in the BeStart programme, and we are now negotiating with CE-Line about funding.

We helped WaterWaves—a spin-off from Wetsus research, also located on the WaterCampus—organize a demonstration with the VIDA programme, among other things. WaterWaves is also on the verge of a great breakthrough. In short, examples galore!

EVERYONE IS ALWAYS TALKING ABOUT SEIZING OPPORTUNITIES THAT COME ALONG. WHAT OPPORTUNITIES DO YOU THINK LIE AHEAD FOR DUTCH WATER TECH COMPANIES?

This is a tricky question because there isn’t a simple answer. Water is all-encompassing. The availability of sufficient and clean water is a global issue, and not just in terms of drinking water production and wastewater treatment. Water also plays a major role in various other industries, including agriculture and horticulture, food, health, energy and chemistry. Climate change, pollution, waste and a sharp increase in use are causing an acute water shortage in many places worldwide. There is a global transition underway to a sustainable and circular economy. Water technology innovations are needed to complete the transition on a large scale and at an acceptable cost. That means that there are numerous opportunities for Dutch water tech companies, and many investments are being made to help them at the regional, national and European levels. So, if I’m being honest, I think the main challenge will not lie in a lack of opportunities but rather in maintaining the right focus as a company.

RONALD WIELINGA

Date of birth: 26 April 1980
Place of birth: Zaandam
Civil status: Married, two daughters (14 and 11 years old)

Most recent activities: Trained in chemical technology and innovation sciences, Ronald has been working in water technology for 20 years. He currently serves as entrepreneurship manager for WaterCampus Leeuwarden. He is also chair of the NPT (Nederlandse Procestechnologen), board member of BeStart (Accelerator) and treasurer of Steunstichting KVWN (Waternetwerk).

Hobbies: “Cooking is one of my big passions ([ronaldkookt.nl](https://www.ronaldkookt.nl)) and I love field hockey; I coach my daughters, referee many games and also play myself. As a family, we love travelling around Europe by motorhome. In short, there’s never enough time.”



SEEDS ARE STARTING TO SPROUT

DUTCH WATER TECHNOLOGY ACTIVE IN DUBAI

A DELEGATION OF 50 DUTCH COMPANIES VISITED EXPO 2020 DUBAI IN THE UNITED ARAB EMIRATES (UAE) FROM 31 OCTOBER TO 4 NOVEMBER 2021. THE TRADE MISSION WAS LED BY THEN MINISTER OF FOREIGN TRADE AND DEVELOPMENT COOPERATION TOM DE BRUIJN AND VNO-NCW CHAIR INGRID THIJSEN. THE CENTRAL THEME OF THE MISSION WAS SUSTAINABLE URBAN DEVELOPMENT. DIRECTOR HEIN MOLENKAMP OF THE WATER ALLIANCE WAS ALSO IN ATTENDANCE.

FOR THOSE WHO DON'T KNOW, HOW IS SOMETHING LIKE THIS ORGANIZED?

The driving force behind this type of initiative is often the Rijksdienst voor Ondernemend Nederland [RVO, ed.], which often initiates these trade missions together with the Ministry of Foreign Affairs. Trade association VNO-NCW is also active in this area. VNO-NCW chair Ingrid Thijssen was the business mission leader on this trip.

WHAT WERE THE HIGHLIGHTS?

The trip's main focus to the Gulf region was, of course, the World Expo in Dubai. I found the Expo extremely impressive. Magnificent pavilions from numerous countries, with no expense spared to present themselves well. On 3 November, King Willem Alexander and Queen Máxima officially opened the Dutch pavilion at the Expo during the "Netherlands' National Day". The Dutch pavilion itself did well, too—winning the award for the most sustainable pavilion at the World Expo. The pavilion combined food, water and energy in a sustainable context. It provided Dutch companies with a wonderful opportunity to show the world what they have to offer in the fields of water, food, and sustainable energy. This has positioned the Netherlands as a key player in solving global challenges.

HOW WAS WATER TECHNOLOGY IN THE SPOTLIGHT, SPECIFICALLY?

One example is Sunday, 31 October—the UN World Cities Day, followed by a water conference organized by the NWP.

Water also plays a key role in food and energy, and the Dutch pavilion clearly played into this with the slogan 'Uniting Water Energy Food'. Many innovations in the water-tech sector take place at the intersection of these three sectors. Several Water Alliance members were involved with the Dutch pavilion as sponsors, including Holland Water and Quooker. The pavilion also featured

an ingenious "water from air" installation, based on an idea by artist Ab Verheggen.

WHICH DUTCH COMPANIES WERE PRESENT ON THE THEME OF WATER?

I'm probably forgetting some, but Royal Eijkelpark, Pure Blue Water, Oxycom and Priva were also in Dubai and the Water Alliance members I mentioned earlier. Because Water Alliance has been building relationships in the United Arab Emirates for some time, various seeds have already been planted and are beginning to sprout. Hydraloop, LG Sonic, Salttech, Colubris and Hatlenboer Water are now doing business here, for example.

WHAT ELSE DID YOU EXPERIENCE?

All sorts of things; the days were intense. We visited the Dubai Electricity & Water Authority [DEWA, ed.] and the recently opened SRTIP, the Sharjah Research Technology and Innovation Park—all very impressive. Contacts with companies in the delegation also yielded new relationships, and several Water Alliance members were connected to potential clients. The UAE is very interested in Dutch innovations in the water, energy and food industries. The choice of 'Uniting Water Energy Food' as a central theme in the Dutch pavilion was a good move.



Royal Visitors!

Flottweg continues to expand due to growing demand for separation technology

Flottweg Nederland specializes in separation technology. The company is evolving continuously as the demand for its technology continues to grow. Specific customer requirements play a key role in an increasing number of markets. WaterProof spoke with director Liselotte van Donselaar, who took over the reins from her father and founder Pieter van Donselaar seven years ago.

WHAT DO YOU DO, EXACTLY?

“We sell machines that separate solids from liquids. We use two basic techniques: centrifugation and filtration. In centrifugation, separation is done on the basis of similar weight. Filtration is based on particle size. The products are produced in Germany, at Flottweg SE Vilsbiburg and BHS Sonthofen. Our sister company Sepagrip specializes in smaller filter systems, tank cleaners and automatic sampling equipment.”

WHO ARE YOUR CUSTOMERS?

“Our clients work in almost all industries— from the food industry and chemical industry to sewage treatment and environmental protection. Almost every industry relies heavily on mechanical separation technology in its production process. For example, in water process management in the food industry, in the purification of residual paint from spray booth water and in the separation of waste streams at wastewater treatment plants.”

WHAT IS FLOTTWEG'S ADDED VALUE?

“Improved separation technology leads to high product quality and large savings by reducing energy and raw material consumption. I consider knowledge and skill to be key concepts in this regard. With both of those qualities, we are well-prepared in every market segment we operate in and always provide the client with the right product. Flottweg Nederland is kind of a general practitioner who makes a diagnosis and then arrives at a suitable solution with the specialists at the factory. We also have an SCC certified service department with our own engineers. They carry out inspections, commission new machines, train personnel to operate machines and perform regular maintenance on centrifuges and filter plants.”



HOW DOES CENTRIFUGATION WORK, EXACTLY?

“A decanter centrifuge, as it is officially called, separates solids from one or two liquid phases. Separation is done in a continuous process, using centrifugal forces of 3000 G or more. The heavier solid particles are thrown outward against the rotating wall, while the lighter liquid phase concentrates on the inside. The sludge formed by the solids is continuously removed with an auger that rotates at a slightly different speed than the bowl, gradually removing the solids from the decanter. The ‘clarified’ liquid phase is discharged through the other side of the bowl, completing the separation.”

AND FILTRATION?

“Filtration separates according to a difference in particle size. Each filter has specific properties and works with pressure or vacuum, depending on the application. The filters are made of textile, metal or a composition of materials.”

What is the best part of your job?

“In addition to working with a high-quality product, I love the challenge of working with colleagues to go the extra mile for the customer. We can help the customer move forward, and that’s what it’s all about.”

Liselotte van Donselaar



“High product quality results in large savings in energy and raw material consumption”

































accelerating business with **WaterCampus**

wateralliance.nl



Leeuwarden



watercampus.nl

