

Water Alliance presents

# and the nominees are...

Meet the candidates for the WIS Award 2020!

wateralliance  
innovation  
stimulation  
award 2020  
powered by wateralliance™



Ministerie van Economische Zaken

provincie Fryslân  
provincie Fryslân



wateralliance 10 YEARS  
accelerating business with WaterCampus

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Every other year, Water Alliance challenges innovative entrepreneurs within the water technology sector to present their most innovative product for the prestigious Water Alliance Innovation Stimulation Award. Winning the award can be considered a kickstart for growth!

All of the following candidates will pitch their innovation during the Semi Final at European Water Tech Week 2020. During the Grand Finale in that same week, the top five will present their innovation to a renowned jury. Once the jury's voting window has closed, the WIS Award 2020 winner will be chosen and takes home the iconic prize.



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## 2018 WIS-winner Sabine Stuiver of Hydraloop Systems

'The WIS Award really makes a difference for entrepreneurs. By winning, we were able to promote our concept (the Hydraloop, red.) worldwide. The publicity support we received as a winner was enormous and the opportunity to present Hydraloop via the WEFTEC and Aquatech gave us a huge acceleration in bringing our innovation to market.'

'The SusPhos technology upgrades various waste streams from wastewater to directly marketable phosphate products. We are currently largely dependent on polluting fossil mines for phosphate. One interesting development is that an increasing number of water purifiers remove phosphate from wastewater in the form of struvite, but due to its insolubility and contaminants such as drug residues, the European market for struvite is limited. With the patented SusPhos process, this residual flow can be upgraded to high quality, market-based products such as flame retardants and fertilisers at competitive prices.'

[susphos.com](http://susphos.com)



*'In three years, I hope to have completed the plant to convert phosphate-rich waste streams to phosphate flame retardants and be close to opening a second plant abroad.'*



Susphos' Marissa de Boer



'Noria develops systems which remove plastic waste from Dutch rivers in a sustainable way (no CO2 emissions). The Plastic-Waste Scoop is a hollow shaft with five blades that scoop through the water in the upper metre of the water column, against the current. A waterwheel converts the water current to the rotational motion of the scoop. Any waste scooped out of the water drops into the hollow shaft and is discharged to the side. The company says it is a sustainable, fish-friendly and affordable solution.'

**noria.earth**



*'In three years, we hope to have a sustainable and affordable solution to stop the plastic streams that float along rivers from our homes to the oceans. Our autonomous systems offer a very sustainable solution both nationally and internationally.'*

Noria's Rinze de Vries (l) and Arnoud van der Vaart

'The Smartbox is a compact, mobile water treatment unit based on membrane technology and smart engineering. What makes the Smartbox unique is its sophisticated and robust construction, which makes it easy to operate and use all over the world. Due to high demand, the unit can also be used for nanofiltration and reverse osmosis, to rid water of colour and odour and desalinate it. The Smartbox offers users in remote areas safe drinking water that meets the WHO standards. Designed by water experts, the unit removes bacteria, viruses, colour, odour, metals and salts. The user-friendly operation makes the unit exceptionally suitable for base camps and emergency hospitals, according to the company.'

[jotem.nl](http://jotem.nl)



*'In three years, I hope Jotem will be considered a complete solution. We have entered into various partnerships; hormone removal from wastewater, defence projects and pilots with water companies. I also hope that Watermiracles becomes just as well-known as Jotem Waterbehandeling. Safe drinking water remains the number-one priority worldwide. Our Watermiracles offer reliable, robust and safe solutions.'*



Jotem's Gerrit Dommerholt



'The biofilm carrier used (biochips) guarantees highly effective biological water purification. For the math heads: biochip active surface area up to 5,500 m<sup>2</sup>/m<sup>3</sup> (up to 1,677 ft<sup>2</sup>/ft<sup>3</sup>). The flow from the circulation pump creates a vortex current which requires no extra energy. The vortex current forces the water from the outside to the inside, allowing it to flow through the chip package without creating a short-circuit current from the input to the output. The reactor is self-cleaning. The high biochip filling level (up to 60%) results in a compact product with a small footprint. The VBBR has no moving parts and it is possible to supply extra air.'

**befil.nl**

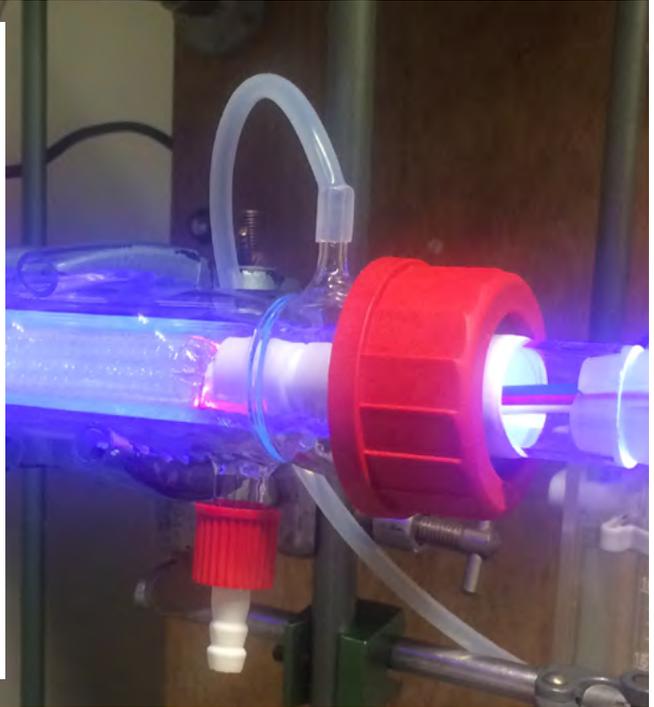


*Bart van den Berg's vision: 'In three years, I want the international market to be just as excited about Befil's filters as our small team. From regional to international, from 50 filters to 500 filters in 3 years.'*

Befil Pure Cleantech's Bart van den Berg

'The FOX is a gas-discharge lamp; an excimer laser filled with Xenon gas instead of the toxic mercury found in energy-saving bulbs and fluorescent tubes. The Xenon gas-discharge lamp produces light at a single wavelength: 172 nm. The shorter the wavelength, the more radiant energy is released. Forty per cent of the power is converted into high-energy light with a wavelength of 172 nm, which photochemically kills almost all harmful compounds in water, gases or air. The rest of the energy absorbed by the lamp is emitted as heat. This technology is the latest possibility to breakdown harmful non-biodegradable compounds into biodegradable compounds, according to the company.'

[o3systems.nl](http://o3systems.nl)



*'In three years, I hope that people are more aware of the harmful effects of the extremely concerning substances in the water, and that people are happy to have a simple solution—a laser in the FOX—to eliminate those substances.'*



O3systems' Mathieu Wolfs

**SAM4**

Motors  
Condition  
Performance  
Compare  
Users

**Pomp 4**  
Middelwater 1 Onderwaterpomp / 100% Live

| Passport     |                |
|--------------|----------------|
| Name         | Pomp 4         |
| Application  | Onderwaterpomp |
| Location     | Nederland      |
| Cabinet      | Cabinet 21D    |
| Nameplate ID | 7514           |
| Brand        |                |
| Current      | 8 A            |
| Voltage      | 690 V          |
| Power        | 800 kW         |
| Power Factor | 0.83           |
| Efficiency   | 0.93           |
| RPM          | 1400           |

**Condition**

Analysis  
**Cavitate gedetecteerd**

**Indicator**  
Noise floor increase

**Failure modes**  
Cavitation, Mechanical

**Recommendation**  
Inspecteer de zuigmond van de pomp  
Controleer of de druk in de zuigleiding  
Controleer de persleiding van de pomp

**Performance Timeline**

— Power (W) — Current (A) — Efficiency (%)

2019-08-01 - 2019-08-02

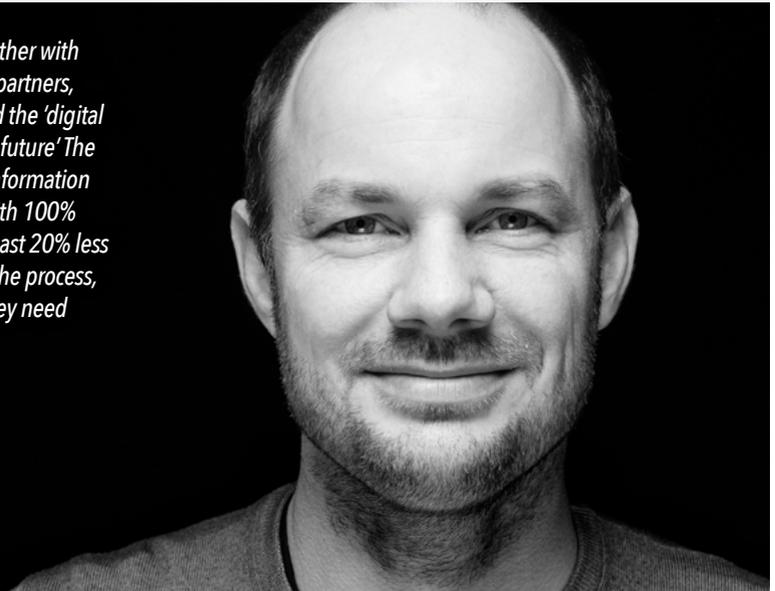
Zoom 00% 125% 150%

2 Aug 12:00 3 Aug 12:00 4 Aug 12:00 5 Aug 12:00

**semioticlabs.com**

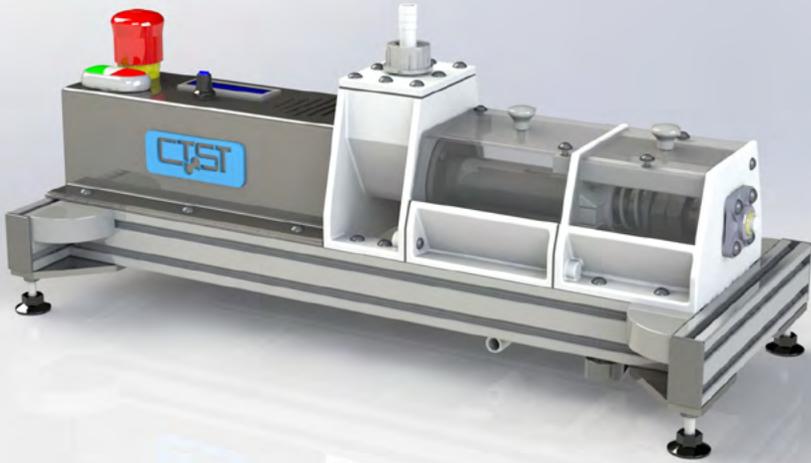
'SAM4 monitors assets and detects emerging failures up to months in advance. The unit uses advanced algorithms to monitor the condition of critical assets around the clock. This unique monitoring method works for all assets powered by AC motors. Unlike traditional vibration sensors, SAM4 can also detect electrical failure and provides insight into the overall performance of the motor or pump, including power, power factor and energy consumption. SAM4 eliminates the need for physical site inspections: only when an asset appears to exhibit deviations does it need attention. This prevents unnecessary replacement of healthy assets and late replacement of assets failing before planned maintenance, leading to major cost savings and contributing to more sustainable business operations, according to the inventors.'

*'In three years, together with our customers and partners, we will have created the 'digital pump house of the future'. The pumps exchange information to meet demand with 100% reliability, emit at least 20% less CO<sub>2</sub> by optimising the process, and report when they need maintenance.'*



Semiotic Labs' Simon Jagers

The CMF (Continuous Micro Filtration) units were developed to separate and compress small particles from liquids for use in labs and pilot plants. The unit can handle and compress particles with an individual size of 5-40 microns. The concept is compact, light and energy efficient. It is also modular, allowing easy replacement of parts and simplifying maintenance. The advantages, according to the company include a compact design, lightweight, low energy use, simple operation, quick to clean and easy to scale up.' [ctstwente.com](http://ctstwente.com)



*'We want to offer high-tech filtration and separation applications and solutions derived from our innovative technology, combined with excellent service. This enables our customers around the world to treat their industrial waste to reuse it or dispose of it responsibly, saving them costs and energy. More importantly, they will be contributing to a sustainable future.'*



'Berghof Membrane Technology has developed membrane modules for tubular forward osmosis (TFO) which result in energy savings and reduced fouling of the membrane compared to traditional membranes. Traditional forward osmosis technology cannot handle high concentration levels without fouling the membranes, and is unable to deal with concentration fluctuations in the inflow. This innovation in membrane technology offers superior tolerance to suspended matter and exceptional fouling resistance, designed for dewatering and concentration of different flows. TFO's main advantages include a low operating pressure, low fouling potential, high repulsion rates for difficult pollutants, operational stability, Inside-out Forward Osmosis Membrane Filtration, according to the company.'

**berghof.com**



*'Our company's vision is to create a clean environment for all generations and to offer the best solutions for sustainable industrial growth.'*

Berghof Membrane Technology's Claudia Sousa

'Nanobubbles is a technology that keeps oxygen in the water and keeps it oversaturated for a long time. Nanobubbles (e.g. 100% oxygen) have a negatively charged surface and therefore do not clump together, preventing them from dissipating on the surface of the water. This means that all the oxygen is kept in the water and is only released when it reacts. The water can also be oversaturated with oxygen. This leads to large energy and time savings, as the water does not need to be aerated as long. The business case is already in use in the greenhouse horticulture sector, where the installation costs around half the price of a traditional aeration system. Lowering the operating hours saves labour and maintenance costs, according to the company.'

[royalbrinkman.com](http://royalbrinkman.com)



*'In three years, I hope to see the sector working together to get innovations off the ground, investing not for our own benefit but instead focusing on the social problem to move the sector forward. If the sector is moving forward, we all move with it.'*

Royal Brinkman's Friso Vos de Wael

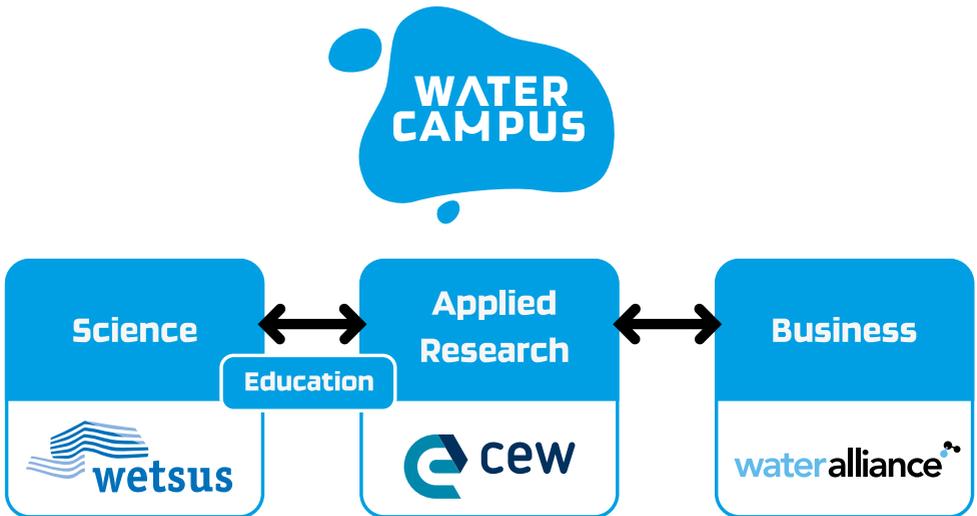
## Water Alliance

The Water Alliance is a unique partnership of public and private companies, government agencies and knowledge institutes involved in water technology in the Netherlands. The Water Alliance focuses on innovative and sustainable water technology that can be used worldwide. Water Alliance, Wetsus and CEW are the managing partners of WaterCampus Leeuwarden.

## WaterCampus Leeuwarden

WaterCampus Leeuwarden is known as the meeting point of the Dutch water technology sector and has the ambition to play a sector uniting role for the rest of Europe as well.

WaterCampus stimulates cooperation between (inter)national businesses, knowledge institutes and governments within the water technology sector, in order to create synergy for world class innovation, education and entrepreneurship. This strengthens the global position of the European water technology sector. Additionally, WaterCampus offers a unique research infrastructure, and is a meeting point for scientists and companies from all over Europe.



## EWTW 2020

During the European Water Technology Week 2020 (EWTW 2020) business and innovation leaders from companies, universities and governments from the water technology industry and relevant cross-overs meet and inspire each other in the innovative climate of WaterCampus Leeuwarden. Plenary sessions with keynote speakers, a dedicated trade fair and scientific and business oriented thematic sessions: every aspect of water technology innovation will be featured. In 2018 the EWTW attracted over 1000 participants from 38 countries and we expect the 2020 edition to be at least as successful.



Europe's most integrated  
water technology event;  
**from science to  
international business**

**Sept. 21-24  
2020**

**Leeuwarden  
the Netherlands**

## Save the Date!

The WIS candidates will pitch their innovation during the Semi Final on September 21st. The audience will then have the opportunity to vote for their top five. During the Grand Finale on Wednesday, this top five will present their innovation to the renowned jury and answer their critical questions. Once the jury's voting window has closed, the WIS Award 2020 winner will be chosen and takes home the iconic prize.

For more information: [ewtw2020.eu](http://ewtw2020.eu)

## Susphos

Bert Haanstrakade 982  
1087 HJ Amsterdam  
T +31 6 28 50 29 59  
E [marissa.deboer@susphos.com](mailto:marissa.deboer@susphos.com)  
**susphos.com**

## Noria

Molengraaffsingel 12  
2629 JD Delft  
T +31 6 24 85 60 70  
E [rinze@noria.earth](mailto:rinze@noria.earth)  
**noria.earth**

## Jotem Waterbehandeling

De Watergang 16  
7671 SW Vriezenveen  
T +31 851 05 07 77  
E [g.dommerholt@jotem.nl](mailto:g.dommerholt@jotem.nl)  
**susphos.com**

## Befil Pure Cleantech

Drs. W. van Royenstraat 21  
3871 AN Hoevelaken  
T +31 332 58 03 29  
E [info@bebro.nl](mailto:info@bebro.nl)  
**befil.nl**

## O3 Systems Technology

Luchthavenweg 31  
5657 EA Eindhoven  
T +31 407 11 73 61  
E [m.wolfs@o3systems.nl](mailto:m.wolfs@o3systems.nl)  
**o3systems.nl**

## Semiotic Labs

Bargelaan 24  
2333 CT Leiden  
T +31 853 03 11 78  
E [simon@semioticlabs.com](mailto:simon@semioticlabs.com)  
**semioticlabs.com**

## CTSTwente

Virulyweg 37E  
7602 RG, Almelo  
T +31 546 74 50 20  
T +31 6 29 39 32 00  
E [e.holwerda@ctstwente.com](mailto:e.holwerda@ctstwente.com)  
**ctstwente.com**

## Berghof Membrane Technology GmbH

Agora 4  
8934 CJ Leeuwarden  
T +31 588 10 01 10  
E [claudia.sousa@berghof.com](mailto:claudia.sousa@berghof.com)  
**berghof.com**

## Royal Brinkman

Woutersweg 10  
2691 PR 's-Gravenzande  
T +31 174 44 61 00  
E [friso@royalbrinkman.com](mailto:friso@royalbrinkman.com)  
**royalbrinkman.com**

## Stay informed about all of the WIS activities via:

Agora 4, 8934 CJ Leeuwarden  
The Netherlands  
E [info@wateralliance.nl](mailto:info@wateralliance.nl)  
T +31 58 284 90 44

 @WaterAllianceNL  
 waterallianceNL  
 water-alliance  
 WaterAllianceNL

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