

AQUATECH
**INNOVATION
AWARD**

**AQUATECH
AMSTERDAM**




**JURY
REPORT
2015**

A CELEBRATION OF INNOVATION

With the world facing so many challenges involving water, the Aquatech Innovation Award aims to make a valuable contribution: it is an opportunity to give recognition to the innovators in the sector. It is these individuals and organisations who lead the way in finding solutions for the future to meet these challenges, especially solutions that achieve wide use through successful commercialisation.

The Award also helps overcome the barriers to this innovation. The water sector is seen by many as being a conservative sector, and the scale of the challenges the world faces can be daunting. 'We have to compete with conservatism and with this feeling that the challenges are too large, so celebrating innovation is very important to give the people that are innovating the energy to continue,' comments Mr. Cees Buisman, jury chairman of this year's Award.

The Aquatech Innovation Award continues to grow in size and in terms of its status. More than 70 companies entered this year's competition, all hoping to win top place in this prestigious water industry award. The 14 most impressive entrants across five categories were nominated as finalists, along with an additional 'special mention' nominee.

This number of nominees put forward by the jury represented an increase compared to the previous Award. This was due in particular to a very strong showing from smaller companies. 'Now there are many more smaller companies joining with new hi-tech solutions,' says Buisman. This increase in participation by such companies has been actively encouraged for the 2015 Award. 'I think this is a major improvement,' says Buisman. 'Small companies often have the most exciting innovations,' he continues, adding: 'At the same time, the importance of small companies in the water sector is increasing, and that shows that the water sector is becoming more innovative.'

The solutions offered by the nominees cover important concerns, such as the challenge of removing very low concentrations of pharmaceutical

compounds from water, how to deal with concentrated brines, and the need for more rapid ways of testing for the presence of bacteria in drinking water supplies. 'It is satisfying to see that the Aquatech Innovation Award and those who are seeking to win it are matching the trends in the water sector,' says Buisman.

THE WINNING ENTRY

'I am very excited about the winner,' says Buisman. Salttech BV's DyVaR O&G ZLD is a zero-liquid discharge process for treating highly saline water from the oil and gas industry. Such waters are being produced in increasing quantities. They require treatment to meet environmental regulations and to recover water for reuse, but the high salinity makes this a technically challenging task, especially if it is to be done cost-effectively. 'The problem of how to get rid of these brines is immense,' adds Buisman.

Already proven in locations in North America and the Middle East, DyVaR uses evaporative and cyclonic technologies to separate out salts and other components, recovering almost all of the water and making it available for reuse. 'They solved the problem for any combination of salts, which for many other technologies is not possible,' says Buisman.

Corrosion is one aspect of the challenge of dealing with highly saline waters. 'They solved this by using polymer materials,' says Buisman, adding that the other aspect is scaling, which has been solved by the use of cyclones. 'That combination is a very big innovation, and it is also being recognised by the market in terms of orders,' he says, adding: 'As jury chairman, I am very proud that such an innovative company won.'

The winner is...

DyVaR O&G ZLD from Salttech BV, the Netherlands

DyVaR is a one-step, zero-liquid discharge process for treating highly saline water from the oil and gas industry. Already proven in locations in North America and the Middle East, it uses evaporative and cyclonic technologies to separate out salts and other components, recovering almost all of the water and making it available for reuse.



HOW THE ENTRIES WERE JUDGED

Entries to the Aquatech Innovation Award 2015 were judged in five categories: water treatment, including drinking water, clean water and point-of-use; waste water treatment; transport & storage; process control technology & process automation; and not-yet-to-market. An independent

international jury evaluated the entries based on: originality (50%); practicality (technical, economical, feasibility; 25%); and sustainability (environment, security, energy and efficiency; 25%). The jury selected one winner from each category and then selected the overall winner from these category winners.



NOMINEES

Nominees in the category Not-yet-to-market

- **Category winner:** PearlAqua, Aquisense Technologies - stand 07.552
- CAGIS: Real-time Customer Alert GIS, Vitens - stand 02.214

Nominees in the category Process control technology & Process Automation

- **Category winner:** Hach Prognosis predictive diagnostic system, Hach Lange - stand 02.100
- Biotrack AquaMonitor, Biotrack - stand 07.539A
- FATHOM Meter Data Management, FATHOM Water Management LLC - stand 07.552

Nominees in the category Transport & Storage

- **Category winner:** AQS-SYS, Aquarius Spectrum Ltd. - stand 03.222
- SL-RAT Sewer Line Rapid Assessment Tool, InfoSense, Inc - stand 07.208

Nominees in the category Water supply/water treatment

- **Category winner:** MPC-Buoy: Monitor, Predict & Control Algal Blooms, LG Sonic BV - stand 01.136
- Grundfos BACMON Bacteria Monitoring, Grundfos A/S - stand 01.106
- Metalmembranes, Metalmembranes.com BV - stand 07.552

Nominee in the category Waste water treatment

- **Category winner:** DyVaR O&G ZLD, Salttech BV - stand 07.539B
- Arvia ODC, Arvia Technology Ltd - stand 07.552
- Keratox, ATG UV technology - stand 03.312

Special mention:

- **Serious water game,** Vitens - stand 02.214

Overall winner of Aquatech Innovation Award

- **DyVaR O&G ZLD, Salttech BV - stand 07.539B**

THE 2015 JURY

Chairman of the Jury:

Mr. prof. dr. ir. C.J.N. Buisman, *Wetsus*

- Ms. ir. C. Uijterlinde (*Stowa*)
- Mr. ir. P. Kamp (*former CTO at PWN Technologies*)
- Mr. ir. J.T. van der Zwan (*PUM Netherlands Senior Experts*)
- Mr. ir. J.G. Langeveld (*TU Delft*)

- Mr. W.F. Volmer BSc (*Nmi Certin BV*)
- Ms. prof. M. Kennedy, PhD (*UNESCO-IHE Institute for Water Technology*)
- Mr. M. Kruisweg (*Akzo Nobel*)

Proceeds from the Aquatech Innovation Award go to the Amref Sustainable water access for the Masai in Kajiado, Kenya project. This aims to reduce the number of water-related diseases among the Masai by improving access to safe drinking water and sanitation. The project will bring access to safe water for approximately 50,000 people. Approximately 16,500 people will gain access to sanitation and will be informed about the importance of good personal hygiene.



THE JURY'S VERDICTS ON THE CATEGORY WINNERS

CATEGORY WINNER

NOT-YET-TO-MARKET

PearlAqua, Aquisense Technologies

"UV LED technology has the promise to offer greater efficiency. We have been really waiting for this development, and with this first product to the market, we think it is coming."



CATEGORY WINNER



PROCESS CONTROL TECHNOLOGY & PROCESS AUTOMATION

Hach Prognosys predictive diagnostic system, Hach Lange

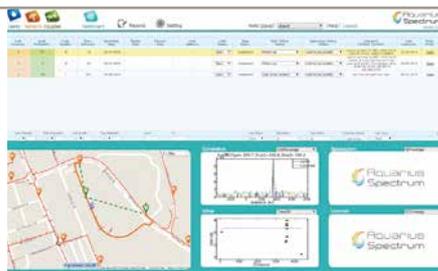
"Prognosys enables predictive, instead of responsive, maintenance to be carried out, resulting in lower cost of ownership at higher instrument availability, against a relatively low investment."

CATEGORY WINNER

TRANSPORT & STORAGE

AQS-SYS, Aquarius Spectrum Ltd.

"The AQS system combines state of the art sensor technology with smart information technology. As such, AQS is a first promising step in fully benefitting from the strong advances in technology over the last decades."



CATEGORY WINNER



WATER SUPPLY/WATER TREATMENT

MPC-Buoy: Monitor, Predict & Control Algal Blooms, LG Sonic BV

"The MPC-Buoy is a complete algae control solution. We believe it will have an impact on the market because it is a fully integrated product and can work completely independently."

CATEGORY WINNER

WASTE WATER TREATMENT

DyVaR O&G ZLD, Saltech BV

"The technology is evaporation in collaboration with cyclonic treatment for the separation of salts. DyVaR O&G is a very big change in the market."



THE AQUATECH INNOVATION AWARD
IS ORGANISED BY

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