

# The Challenge of Turning Advanced Cutting-Edge Technology into Commercial Products

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Watreco, Water Treatment Corporation, was established 2004 in Malmö by five private founders. It develops, sells and implements energy efficient and sustainable water treatment solutions, based on the self-developed and patented Vortex Generator. If the conditions are right, the solutions can be implemented based on solar- and wind driven pumps.



Working in harmony with nature, the Vortex Process Technology functions by a continuous process cleaning water by setting water in a powerful three dimensional and rotational movement that works with pressure and counter-pressure, which affects and changes the inner characteristics of water, all the way down to molecular and atomic level. The same effect is used in its offspring REALice-system

that saves energy and increases ice quality for ice rinks. These effects can, in return, be used and applied in different areas such as aeration, mixing, degassing and separation. The spectra of application areas for this technology are extensive.

## Energy Efficient Aeration

Currently Watreco are focusing on energy efficient aeration in ponds – municipal, private gardens and golf courses – but sees the big potential in solutions for fish breeding and waste water treatment, where aeration is directly linked to production output.

Initial tests and rough calculations show that energy consumption can be lowered by a factor of four in

a waste water treatment plant. More tests are under way, and Watreco are also looking for cooperation with established players in the waste-water treatment sector both on the supplier and the customer side.

## De-gasing

In parallel, de-gasing shows big potential within irrigation. The lowered viscosity effect that it accomplishes enables water to better penetrate the soil and increase water uptake in plants leading to “more crop for every drop”. As said, the same effect is used in the offspring system that saves energy and increases ice quality for ice rinks. An energy efficient ice rink can, on average, save energy equivalent to 52 tons of CO<sub>2</sub> per year which is equal to CO<sub>2</sub>-emissions from 34 medium size cars. After several years of testing and development, the REALice system now makes its entrance on the global market with installations in Europe, North America and Australia. This will create the initial revenue flow and a base for putting in more development efforts into other application areas where the potential is even bigger.

## New Innovative Desalination Technology

Based on the separation effects in the Vortex Process Technology, Watreco aims to move into desalination making usable water out of sea water. Initial test show very interesting results but more resources and financing along with cooperation with Universities, field experts and other R&D supporting organization like Vinnova, are needed in order to move forward.

## Accelerating Development and Time-to-Market through Cooperation and Support


Since the start Watreco has worked closely with the City of Malmö and their representatives in several



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test projects that quickly have generated valuable feedback on how the technology and systems have performed in real full-scale operational situations. This strategy has proven very successful in accelerating the time-to-market process. Being located at MINC – Malmö Incubator (www.minc.se), a start-up support facility, has also given us valuable business coaching and support.

Since March 2008, Watreco has been one of the companies in Project HEIDI – Hands-On Environmental & Industrial Development Initiative (www.projectheidi.eu) – an EU-Financed trial project where small companies are given access to industrial facilities at Malmö University for development, testing and prototyping. The City of Malmö and Sustainable Business Hub (a regional network for cleantech related companies) is also supporting partners in the project.

Other valuable support has come through the membership in Sweden Cleantech Incubators (www.scti.se), a virtual incubator focusing on supporting cleantech companies. The screening process that each company has to pass, from a sustainable and cleantech definition perspective as well as a business perspective, gives good credit and feedback to the company. 



Kuva: Kalle Pruudenin veistoksen pysäytys Kätörun taidepolulle / Peeter Laurits / Focus.ee

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