

Toshiba sets up Aqua Research Centre at PUB Singapore's WaterHub

Toshiba also inks an MOU with national water agency PUB to explore R&D collaboration in industrial used water treatment.

Singapore, 11 April 2012 -- Toshiba Corporation (TOKYO: 6502) today announced that it has set up the Aqua Research Centre, its first water treatment R&D centre located outside of Japan, at national water agency PUB's WaterHub at 80 Toh Guan Road East in Singapore.

Home to several renowned international and local water-related organisations such as Global Water Intelligence, International Water Association, Singapore Water Association, and Singapore Society for Trenchless Technology, WaterHub is also the R&D base of other global research institutes such as Siemens, Nitto Denko, Optiqua Technologies, Memsys Clearwater and Xylem Water Solutions who are attracted by the vibrant R&D eco-system in Singapore.

The Aqua Research Centre was officially opened in a ceremony officiated by Mr Chew Men Leong, Chief Executive of PUB. At the ceremony, Toshiba also inked a Memorandum of Understanding (MOU) with PUB to explore a collaboration to develop and test the application of a newly developed adsorbent to remove toxic elements in the used water treatment process for semiconductor plants.

"Singapore's investments in the water sector in the last couple of years have paid off, with more than 70 local and international water companies and 24 research centres undertaking projects in various domains like membrane, biomimicry and low energy seawater desalination. The addition of Toshiba will add vibrancy to the local water R&D landscape and boost Singapore's growing status as a global hydrohub," said Mr Chew Men Leong, who is also the Executive Director of the Environment and Water Industry Programme Office (EWI), which spearheads the growth of Singapore's water industry.

The Singapore Government has identified water as a strategic growth sector in Singapore with R&D as the key driver. To promote research and development in this field, the EWI is investing \$470million from Singapore's National Research Foundation in water R&D. Through funding promising research projects, the EWI aims to foster leading-edge technologies and create a thriving and vibrant research community in Singapore.

In line with efforts to grow Singapore into a hub for water technologies and research, EWI also strives to promote Singapore as a global test-bed. PUB offers opportunities for

water companies to test-bed their new technologies and solutions at its facilities under actual site conditions. A total of 114 projects involving the test bedding of water solutions have been facilitated at PUB's installations, and more than 30 test-bedding projects are currently on-going at PUB's facilities.

Supporting EWI's initiatives, WaterHub provides a strategic platform for PUB and the water industry to leverage on for technology development, learning and networking under one roof. Besides growing a strong presence of water-related organisations, WaterHub also develops training programmes to raise the competency standards of the water industry, while benchmarking it against best international practices. In addition, WaterHub has steadily expanded its connections across the Asia Pacific to the global water sectors, providing endless opportunities for industry players to network globally.

"We are delighted to have the opportunity to work with PUB and the many water experts and professionals in Singapore. We appreciate the Singapore government's foresight and initiative in making the country a global hydrohub, and we look forward to making progress in our research at the Aqua Research Centre and our collaboration with PUB. We are sure that Toshiba can make important contributions to the treatment of water uses in industrial processes," said Mr. Toshio Masaki, Corporate Senior Vice President of Toshiba.

In 2008, Toshiba invented a new adsorbent named "Functional Powder" which can not only absorb toxic elements from used water, but also extract valuable elements for recycling, including rare metals. The powder can replace the chemicals used in conventional industrial used water treatment processes for the removal of such toxic compounds and is more cost efficient as it can be reused. Toshiba intends to verify this basic technology through field testing and demonstrations under real-life site conditions.

Under the MOU, Aqua Research Centre and PUB will explore developing and testing a treatment process technology under which high concentrations of fluoride ions discharged from the semiconductor manufacturing process are removed using the functional powder.

Going forward, Toshiba will promote continued development of the technology towards establishing a global business in industrial used water treatment.

Toshiba aims to showcase this R&D collaboration at the Singapore International Water Week (SIWW) 2012, a global water event that brings together the who's who in the water industry. Themed "Water Solutions for Liveable and Sustainable Cities", the 5th Singapore International Water Week, will be held from 1 to 5 July 2012, in conjunction

with the 3rd World Cities Summit and the inaugural CleanEnviro Summit Singapore.

Outline of Research and Development Centre

Name: Aqua Research Centre
Address: WaterHub, 80 Toh Guan Road East, Singapore 608575
Established: April 2012
Mission: R&D in water treatment
Representative: Dr. Tatsuoki Kono

About Toshiba

Toshiba is recognized as a world-class innovator and leader in the global business ranging from electronic components and digital products to power generation systems. In the water business, Toshiba has provided customers with supervisory control systems, electrical and instrumentation equipment and operations & maintenance services in more than 700 water purification, sewage treatment and desalination plants over some 40 years.

About PUB

PUB is a statutory board under the Ministry of the Environment and Water Resources. It is the water agency that manages Singapore's water supply, water catchment and used water in an integrated way.

About PUB's tagline: Water for All: Conserve, Value, Enjoy

PUB has ensured a diversified and sustainable supply of water for Singapore with the Four National Taps (local catchment water, imported water, NEWater, desalinated water).

To provide water for all, PUB calls on all to play our part to conserve water, keep our water catchments and waterways clean and build a relationship with water so we can enjoy our water resources. If we all play our part, we can have enough water for all our needs – for industry, for living, for life. For more information, visit www.pub.gov.sg

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