

Media Factsheet

Singapore's vibrant water industry on track to meet Research, Innovation and Enterprise (RIE) 2020 Targets

Water sector continues to grow with technology as a key driver, adding \$300 million in annual value-add and 400 jobs from 2016.

Singapore's water sector continues to experience strong growth, with a robust water ecosystem anchoring Singapore as a leading global hydrohub. With over **200 water companies and more than 25 research institutes**, the sector continues to attract investments, generating **S\$2.5 billion in annual value-add and 14,400 jobs** to date.

With cumulative funding of S\$670million from the National Research Foundation (NRF) since 2006, the industry is well on track to meet its targets of S\$2.85 billion VA and 15,000 jobs by 2020.

Under the Research, Innovation and Enterprise (RIE) 2020 Plan, Singapore's National Water Agency PUB, the Singapore Economic Development Board (EDB), and Enterprise Singapore will tap on Singapore's strengths in water to focus on three key areas: developing solutions for the world, accelerating the commercialisation and export of technologies, and building a range of capabilities and talent.

Developing solutions for the world

EDB has facilitated and secured new international companies to set up R&D Centres of Excellence or expand their base in Singapore. **Kurita Water Industries** established their first Water R&D Centre in Asia outside of Japan, focusing on developing technologies for desalination and wastewater recycling. Having established their Southeast Asia regional headquarters, innovation centre and industrial solutions team in Singapore, **SUEZ** plans to expand its Singapore Water Technology Centre, including a 90-man R&D team and four Centres of Excellence. **Gradiant's** newly set up R&D centre will also serve as its Asia-Pacific headquarters, enabling it to expedite the development of solutions in industrial desalination, brine minimisation and water reuse.

Through collaboration in research and innovation with partners from 27 countries, PUB has since 2002, undertaken 613 R&D projects valued at S\$453 million. Targeted at sustainably increasing future water resources and improving the efficiency of water treatment processes and operations, these include projects in low-energy desalination and improving NEWater recovery, and are also relevant globally.

Accelerating the commercialisation and export of technologies

Singapore is working with the industry to enhance its capacity to create and accelerate the commercialisation of high-impact solutions that address global water challenges and also contribute to the development of globally competitive companies.

PUB's **Singapore Water Exchange** is slated to begin operations later this year, and will house a collaborative ecosystem of companies along the water value chain, providing opportunities to leverage mutual strengths and potential synergies to push the frontier of water innovation and business growth.

CITIC Envirotech Ltd. (CEL) is also launching its **Singapore Envirotech Accelerator (SEA)** to provide corporate guidance, technical expertise, test-bedding, seed funding and engineering development support to local companies with innovative technologies and products, and help them expand their business overseas. The company will also identify foreign environment and water companies with relevant technologies and anchor them to Singapore.

Nano Sun, a Singapore-based water technology company, 3D-prints water filtration membranes (millions of nanofibers layered on top of each other and compressed into a thin membrane) that are ultra-efficient and more resistant to breakage and biofouling. This next-generation membrane will be used by semiconductor multi-national companies in Singapore and a new municipal wastewater treatment plant built in China. Nano Sun has launched its manufacturing facility in Singapore and plans to expand its team, with its membrane applications to be deployed in China, Indonesia and Philippines.

Building a range of capabilities and talent

Enterprise capabilities

Enterprise Singapore works with these SMEs to transform their business models and drive productivity, moving them into higher value Design-Build-Own-Operate (DBOO) or Build-Operate-Transfer (BOT) players.

- Water engineering, procurement & construction (EPC) and operations and maintenance (O&M) SME **Darco Water** ventured into water plant ownership with support from Enterprise Singapore. Working with Darco on its overseas growth strategy in Vietnam, Enterprise Singapore brought in commercially-managed infrastructure development organisation InfraCo Asia to partner Darco for its first DBOO project in Vietnam. InfraCo Asia provided funding and expertise to mitigate early-stage development risks, supported Darco in its feasibility studies, and helped bridge Darco's gaps in funding, leadership and experience in DBOO deal structuring.
- Water and wastewater treatment systems integrator **Memiontec** also moved into the Build-Own-Operate (BOO) wastewater treatment plant business with Enterprise Singapore's support. Enterprise Singapore partnered Memiontec on a business transformation plan, steering it towards an asset ownership model, that allowed it to develop its first BOT and toll-operate-transfer (TOT) project in Indonesia with Jakarta state-owned company Jakpro.

To build a pipeline of talent for the industry, Enterprise Singapore's **Professional Conversion Programme (PCP) for Global Ready Infrastructure Talent (GRIT)** supports companies in capturing global infrastructure projects by recruiting and re-skilling professionals, managers and executives (PMEs) in infrastructure project structuring, financing, project transactional advisory and project engineering. Mid-career PMEs are placed on structured on-the-job training spanning up to 18 months.

- Through GRIT, a mid-career professional previously in a construction role was able to take on a regional business development role in **Sanli**, an environmental engineering company, that was more physically fitting for his age, and allowed him to apply his deep domain knowledge and experience.

- With GRIT support, **Ecosoftt**, a water solutions provider, hired a mid-career professional who was affected by the economy downturn, to help build their capabilities in deal structuring and project financing, so they could expand into Design-Build-Own-Operate (DBOO) projects.

-End-

About Singapore International Water Week

The Singapore International Water Week (SIWW) is the global platform to share and co-create innovative water solutions. Comprising the Lee Kuan Yew Water Prize, Water Leaders Summit, Water Convention, Business Forums, Industrial Water Solutions Forum, Water Expo, TechXchange, and Young Water Leaders Summit, SIWW delivers a range of flagship programmes and platforms that bring together the global value chain of water to share the latest in business and technological innovations, as well as policy developments in water. The 8th Singapore International Water Week will be held from 8th – 12th July 2018, co-located with the World Cities Summit (WCS) and CleanEnviro Summit Singapore (CESS). For more information, please visit www.siww.com.sg/

About PUB, Singapore's National Water Agency

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.

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.

Visit www.pub.gov.sg for more information

About EDB, Singapore Economic Development Board

The Singapore Economic Development Board (EDB), a government agency under the Ministry of Trade and Industry, is responsible for strategies that enhance Singapore's position as a global centre for business, innovation, and talent. We undertake investment promotion and industry development, and work with international businesses, both foreign and local, by providing information, connection to partners and access to government incentives for their investments. Our mission is to create sustainable economic growth, with vibrant business and good job opportunities for Singapore.

For more information on EDB, please visit www.edb.gov.sg.

About Enterprise Singapore

Enterprise Singapore, formerly International Enterprise Singapore and SPRING Singapore, is the government agency championing enterprise development. We work with committed companies to build capabilities, innovate and internationalise.

We also support the growth of Singapore as a hub for global trading and startups. As the national standards and accreditation body, we continue to build trust in Singapore's products and services through quality and standards.

Visit www.enterprisesg.gov.sg for more information.