

Business today

Little red dot leads the way in going green

Singapore to host Eco-Fair next week, showcasing technologies in the fast-growing environmental sector

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TURNING its Achilles heel into its strength, Singapore – the little red dot with hardly enough natural resources to even survive – is today a player to watch in the rapidly-growing environmental sector.

In an indication of its growing stature in the global environmental scene, Singapore will be hosting the largest Eco-Fair in South-east Asia next week, an event expected to attract 40,000 visitors and 100 exhibitors from South-east Asia, Japan, Europe, Australia and the US.

And to give visitors a glimpse into what an eco-friendly city of the future might look like, Government agencies have put together an impressive life-sized Eco-City. In there, homes come with roofs complete with solar panels that can be used to generate power and filtration systems that collect and clean rainwater so that it can be used for bathing and drinking. While these systems may not be commercially viable as yet, the technologies already exist and Singapore is trying as hard as it can to push the industry along.

Over the next decade, the environmental sector in



ARTIST IMPRESSION COURTESY OF SIF
CROWD-PULLER: The Eco-Fair is expected to draw 40,000 visitors.

Singapore is poised to grow significantly – by as much as four-and-a-half-times, according to Mr Victor Tay, the director of Transportation, Logistics and Environmental Engineering Services at Spring Singapore.

Government agencies have set aside huge budgets to grow the environmental sector, with a keen focus on water technologies.

"We had a political will to succeed, which stem from our survival instincts. Previously we had to buy water from Malaysia and we had no independence. Every now and then, it could be cut off and we won't be able to survive. So in the late 90s, we decided we must come up with our own water," said Mr Tay.

Over the next five years, the National Research Foundation will pump in as much as \$5 billion to grow three key research areas – environmental and water technologies, biomedical sciences and interactive media.

"The environmental market in Asia is growing at 10 to 12 per cent a year. The largest segment is water, which contributes 40 per cent to the industry, while the fastest-growing segment is alternative energy, which is growing at about 20 per cent annually," said Mr Tay.

And with the growth of so many Asean countries, waste management, too, presents a huge opportunity for Singapore-based players.

"Asean has about 550 million in population and on a daily basis it produces 760,000 tonnes of solid waste. That's one huge market for us to go into," said Mr Tay.

To tap into the region, more than half of the world's top 40 engineering design firms have established headquarters, manufacturing and R&D operations in Singapore and nine of the top 10 global process control and instrumentation companies have significant presence here. With 15 per cent of the world's publicly-listed water companies trading on the Singapore Exchange and the world's largest membrane-

based seawater desalination plants located here, the country is already seen as a centre for water technology.

Looking ahead, Singapore will continue to grow steadily in water technologies as countries in the region continue to drive demand, said Mr Tay. Already, established Singaporean companies like Hyflux, Darco Water Technologies and Kappel Corp have been making ripples in the world market.

But apart from a handful of big players whose success stories have been talked about so often, Singapore also has a thriving eco-system of smaller but innovative companies that are keeping the industry ahead.

For instance, SIF Technologies, which provides water and wastewater treatment solutions, boasts a chemical-free patented technology that is the first of its kind in the world. Many of its customers are fish farms, which require huge amounts of clean water to replace water that has turned toxic after becoming contaminated by uneaten feed and fish waste, said Mr Matthew Tan, the managing director of SIF Technologies.

The company developed a technology called capitation, which uses dissolved oxygen to grow "friendly" bacteria that can then act to reduce the toxic substances in the water. Last year, SIF helped its customers recycle about 100 million litres of water. Some of the customers saw their monthly utility bills falling from \$7,000 to \$1,000.

The company is already going into markets like the Philippines, Indonesia and Malaysia. It is also testing its system in Germany.

In the next decade, the alternative energy segment is expected to grow the most significantly.

"From contributing just five per cent to the environmental sector today, the alternative energy segment is expected to contribute about 35 per cent to the environmental sector by 2015," said Mr Tay.

According to Mr Frank Phuan, marketing director of Sunseap Enterprises, which produces patented solar energy systems, the main driving force behind the projected growth of renewable energy is its dwindling cost.

"The technology hasn't changed much since 10 to 20 years ago but the cost of material has gone down, so the cost of using renewable energy has gone down too," said Mr Phuan.

The reduction in the cost, coupled with high oil prices, is changing the dynamics of the renewable energy industry.

"We will get to a point when the cost of oil will rise and the cost of using renewable energy will drop and the whole industry is waiting for these points to meet. Increasingly, renewable energy is actually commercially viable and not just a research module," said Mr Phuan.

"In as soon as three, four years' time, renewable energy products will be so attractive that it will be an energy that no country in the world can reject," he said.

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