

THIS WEEK'S TOPIC

How can Singapore become a zero-waste nation? How is your organisation contributing towards the vision – and what are the costs and benefits involved?

Taking the 4R way to a green future

Dale Hardcastle
Marketing VP
Bain & Company SE Asia

Singapore already has a good waste treatment and management system in place, which ensures that all types of waste are disposed of and treated accordingly. However, this has also resulted in low recycling rates and does not promote a culture of the 4Rs (Reduce, Reuse, Recycle, Recover).

In order for Singapore to become a zero-waste nation, it needs to:

■ Instill awareness of the life cycle cost and impact of waste to the population; education and awareness programmes for the public need to start early in school and extend to the corporate realm.

■ Develop and implement a holistic policy to promote the 4R culture: the theme of waste cuts across multiple ministries and agencies (EDB, Environment, Energy, etc) and a holistic policy that considers the entire supply chain is essential to promoting solutions and new innovation.

■ Get SMEs on board through commercial opportunities: waste management can be economically viable as a business if the true cost of pollution is realised. If the real price of waste handling, management and treatment passes on to the polluter or waste generator, then businesses can effectively identify new opportunities, make investments and take risks on new technology.

A circular economy in Singapore is possible with the right awareness, transparency and an open playing field for businesses to find solutions and innovate to achieve the Zero-Waste goal.

Yeoh Oon Jin
Executive Chairman
PwC Singapore

The solution to the problem of waste exists beyond the mere generation and disposal, as there are many opportunities to capture value throughout a product's lifecycle. The concept of a circular approach is one possible way forward for Singapore. Leveraging strong innovation capabilities, sound infrastructure and the relatively small size of Singapore, the circular approach to waste re-generation can yield opportunities for new businesses to thrive and existing ones to increase competitiveness. At PwC Singapore, we are walking the talk with policies and programmes to reduce our own footprint, such as requiring our suppliers to use recyclable products, while working with businesses, NGOs, and the government on waste reduction and other sustainability strategies.

Cheung Pui Yuen
Country Managing Partner
Deloitte Singapore

Deloitte's sustainability practice has been working on many initiatives in this area. Some of the recommendations in our joint paper with the Singapore Environment Council include building a market for recycled plastic and fostering closer partnerships with universities and research facilities to conduct studies into waste management. Organisations like Deloitte have much to do in this area, and we are making some progress, focusing our efforts on paper and plastic use. We have invested heavily into technologies allowing paperless work flows and are encouraging our 2,500 people to recycle office waste as much as possible.

Ralph J Dixon
Director of Environmental Investments
YTL Singapore Pte Ltd

It is important for supermarkets, quick service restaurants, bakeries and other takeaway outlets to train or educate their staff to minimise the amount of Single-Use Plastics (SUPs) given to customers and put the onus on the customer to request SUPs instead. As an organisation of 12,000 people, we have made a commitment to eliminate SUPs throughout our Group of companies globally by 2025. There will be costs initially, but later on there will be savings in terms of expenditure and also positive impact on the environment.

Thomas Holenia
President
Henkel Singapore

Singapore can become a zero-waste nation through every person and organisation's efforts. At Henkel Singapore, we emphasise that everyone can make a difference and all our employees are trained as Sustainability Ambassadors. In our offices, we implement centralised waste bins, which saves more than 13,000 trash bags annually. Every year, our employees visit schools to teach young children the concept of "Reduce, Reuse and Recycle". We have also supported NUS in its marine debris sample collection and coastal clean-up programme. Being sustainable gives us a competitive position with our customers and investors, and positions Henkel as an employer of choice.

Tan Swee Yew
President
Singapore Green Building Council

Green buildings are in a prime position to support Singapore's zero-waste efforts. Being resource- and energy-efficient by nature, such buildings can incorporate the infrastructure needed to enable the management of waste and recycling protocols.

Most green buildings have recycling receptacles for their tenants and users, with some building owners going one step further by providing recycling services for key waste streams from commercial activities, such as paper, plastic and electrical items.

It takes both a ground-up and top-down approach to effect positive change, but green buildings have in place a ready framework to help nudging end-users towards more sustainable lifestyles.

While these may come across as ancillary, the movement helps to raise awareness on greener user behaviour and encourages the reduced generation of waste materials in day-to-day activities. The Singapore Green Building Council has in place programmes such as the Green Schools Initiative (GSI) to inculcate sustainable mindsets and attitudes from young, which also serve to complement national efforts towards zero waste.



ILLUSTRATION: SIMON ANG

Victor Mills

Chief Executive
Singapore International Chamber of Commerce

To become a zero-waste nation, each individual needs to take responsibility to be a consistent re-user and recycler. A good start would be for everyone to use the blue recycling bins in every block, precinct and condo correctly. Not putting liquid and food waste in blue bins would increase Singapore's recycling by at least 40 per cent. It costs nothing except a little thought and consistent practice. The Chamber's contribution to the vision of zero waste is its championing of the circular economy – vital to ensure the survival of our planet and our species. The time for action by everyone is now.

Prakash Govindan
Co-founder and CTO
Gradiant Corporation

The balance between economic growth and environmental conservation is elusive. With resource-hungry conglomerates being the order of the day in modern cities, technology will play a central role in realising Singapore's zero-waste future.

Advanced methods like zero-discharge treatments help companies completely convert contaminated industrial wastewater into fresh water and other reusable products. Gradiant recognises that costs are deterring investment into zero-discharge capabilities, and has developed a capital-effective build-own-operate service model aimed at prompting greater adoption across Singapore. We're also simultaneously working with the government to develop solutions uniquely geared towards Singapore's needs.

Besides technology, continued support from the government and industry leaders will also be crucial to attaining Singapore's Green City vision in the long term.

Laletha Nithyanandan
Managing Director
Behavioural Consulting Group

Singaporean businesses have an opportunity to earn and consult in the zero-waste space by taking the position of a forerunner in the region. To do this, they need to think in terms of a circular economy by taking a longer-term view of their business and its impact on future generations. It's not just about slogans and feel-good statements, it's about being transparent and doing what we say. Education, incentives and disincentives also play important roles in shaping the behaviour of organisations. But more than that, it takes strong leadership to model the right behaviours.

Matt Kovac
Executive Director
Food Industry Asia

The key to achieving Singapore's ambition to be a zero-waste nation is for industry, government and consumers to work together, connecting policy, education, innovation and infrastructure. One area where the food and beverage industry can lead is in packaging innovation to enhance the recyclability and reusability of packaging, increasing the use of recycled content in packaging, and reducing or removing packaging where possible, without affecting the safety and integrity of contents. Work on this has already started, with commitments by the largest multinational F&B brands to use reusable, recyclable or compostable packaging by 2025.

Seah Kian Peng
CEO
NTUC FairPrice

Protecting and preserving our environment are key imperatives for NTUC FairPrice in our business planning and operations processes.

Our CSR efforts adopt a holistic approach towards sustainability and we have introduced a series of structured initiatives to actively reduce waste that includes food waste and plastic bag usage reduction.

The focus not only involves internal processes such as changing our operational systems and setting measurable benchmarks, they also extend to external outreach efforts through industry partner engagements and community education and involvement activities. This will always be work in progress.

To achieve zero waste as a nation, everyone needs to recognise the power and impact of our individual actions; we can all start to change our own unsustainable practices and actively encouraging others to do the same. With our collective efforts, together we can preserve the Earth for many generations to come.

Paul Henaghan
Vice-President, Data Centre Solutions, APJ
Dell EMC

Becoming a zero-waste nation requires the participation of every individual and organisation in Singapore. Adopting the concept of circular economy, organisations need to proactively administer recycling and circular material processes, and individuals must aim to reuse and recycle resources.

At Dell, we believe no product should go to waste and we design with this in mind – making them easy to repair and recycle. Across our operations and supply chain, we've invested in closed-loop programmes to provide customers and industry partners with the technology and solutions to do more while consuming less. From design to end-of-life, we integrate sustainable innovation into every stage of the product lifecycle. In our manufacturing facilities, we divert more than 97 per cent of materials from landfills, and are committed to making all our packaging waste-free by 2020.

Jacinta Quah

Founder
IQ Coaching & Consulting

Apart from upgrading the recycling infrastructure and waste management system (i.e. the technology), to become a zero-waste nation we must change the daily habits of people (i.e. the adoption).

We can change consumption habits and mindsets:

- (1) Make it compelling – communicate in clear terms, through multiple channels, repeatedly, how this initiative positively and tangibly impacts our everyday life
- (2) Make it easy – changing habits in itself is difficult enough; anticipate resistance, address it by making it extremely convenient for people to reduce, reuse, recycle
- (3) Communicate and celebrate milestones achieved – bring as many people as possible along in the journey.

Marlo Singh
CEO
Fullerton Markets

Any big vision worth pursuing needs to couple thoughtful strategy with mindful execution. For Singapore, it needs to start with knowledge and education. NTU has started an initiative to ban free plastic bags, which is great. Ultimately, we need to understand the implications and impact of waste in our nation. I am reminded of the "marsh-mallow experiment", where kids could have a marshmallow now, or wait five minutes and receive two instead. Those who waited understood the benefits of having long-term perspective.

Sustainability is in fact one of Fullerton Markets' core values (alongside Passion, Excellence and Commitment). Everything we do is driven by the thought process of business sustainability and positive impact on our clients, partners and ultimately our community. We have a corporate social responsibility arm called Fullerton Foundation which carries out this mission.

Magésvaran Suranjan
President
P&G Asia Pacific & P&G India Subcontinental, Middle East & Africa

The growing amount of plastic waste produced and discarded each day is a significant environmental challenge facing not only Singapore but the whole world. We cannot look for solutions to this issue on our own, so together with other organisations from across the plastic value chain, P&G helped form the Alliance to End Plastic Waste. We will address the challenge from both ends: develop solutions to minimise and manage plastic waste, while also promoting recycling, reuse and repurposing of plastics.

Together, we in the alliance are committing US\$1 billion over the next five years to ensure solutions are scalable. Only with such collaborative initiatives, targeted at crucial areas like South-East Asia, can we truly make a lasting impact on our environment.

Damien Dellemmes
Singapore Country President
Schneider Electric

Singapore must attract companies that are genuinely committed to sustainability.

At Schneider Electric, green is our colour and sustainability our DNA. Our facilities globally have a zero-waste-to-landfill policy. Hub Asia – our global logistics hub at Penjuru Lane which ships 64,000 tons of products to 30 countries annually – maintains a 100 per cent recycling rate for metal waste and 98 per cent for non-metal wastes such as plastics and paper.

Companies should embrace IoT and data analytics to monitor equipment lifecycle. This helps to implement "conditional" or "predictive" maintenance where machinery is replaced at end-of-life – instead of following a time-schedule in traditional "preventive" maintenance – thereby extending the life of machinery and reducing waste.

Beyond simple steps like refusing plastic bags at the supermarket, we need to consider our carbon footprint more broadly and commit to minimising it. Businesses must find their place in the circular economy, transitioning from take-make-dispose business models to regenerative approaches limiting waste and pollution. At QBE, we have a global initiative that offers customers the option to invest part of their premium in securities with additional social and environmental objectives. This is just one part of our efforts to plant seeds for our collective future.