



By harnessing our technical knowledge and expertise in food and packaging technology to reduce waste and promote more sustainable practices, we want to contribute towards creating a healthier planet for our customers and communities.

Kerry Mok

CEO, Food Solutions, SATS Ltd.



Reduce Food & Packaging Waste

• **In Conversation
with Kerry Mok**
page 19



• **Case Study:
Collaboration with
Singapore Airlines**
page 22



UNSDG



In Conversation with Kerry Mok



Why did SATS decide to focus on reducing food and packaging waste responsibly in the new sustainability framework it has adopted?



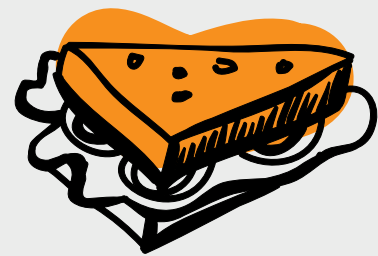
According to a recent UN report, 17% of food produced globally was wasted in 2019. Food service and retail accounted for 26% and 13%⁵ of the waste, respectively. Accompanying this food waste is packaging waste, and the pandemic has created even more packaging waste, especially plastics. Tackling this problem will not only improve food security but also reduce carbon emissions.

SATS is Asia's largest provider of food solutions and gateway services. We serve a broad base of customers from aviation to foodservice and retail. With our culinary and technical expertise, we believe we can work with our customers and partners in the ecosystem to create a greater impact.

⁵ UNEP Food Waste Index Report 2021, United Nations Environment Programme, 4 March 2021.



In Conversation with Kerry Mok



SATS has a goal to halve food wastage in all operations from 2021 baseline by 2028. What is your strategy to achieve this?



We adopt a multi-pronged approach with several initiatives to manage the issue of reducing food and packaging waste.

First, you have to be able to track your progress. In 2019, we launched a trial to introduce a simple and user-friendly system in our production kitchens, which enables our chefs to measure, monitor and capture data on various waste streams during the production process. This year, we enhanced our waste tracking system with artificial intelligence (AI) capabilities that are trained to learn to recognise different types of waste and to automatically record them in a database. This enables us to gain greater visibility of our waste output, gathering valuable data on various food waste streams that will

help us to identify ways to improve production efficiencies and optimise material planning. With this, we are better able to identify the areas that we need to work on to reduce waste and operational costs.

One of the biggest challenges for effective recycling is the segregation of waste. Hence, we are implementing a waste segregation system and these efforts extend to our overseas operations as well. In China, Beijing Aviation Ground Services (BGS), a joint venture between SATS and Capital Airport Holding Company, China's largest airport company, achieved full compliance with municipal waste segregation requirements in March 2020. A total of 74 garbage segregation points have been set up in all BGS operational areas, with waste effectively separated into recyclables, non-recyclables, and hazardous waste bins. Nine months later, in January 2021, segregation of waste was incorporated into BGS corporate standard operating procedures and in March 2021, this was enforced through a system of rewards and penalties. Since April 2021, our Kunshan kitchen has started sorting waste in the production area with the aim of segregating dry waste (e.g. plastic bottles, containers and carton boxes) from wet waste so that dry waste can be successfully recycled.

We have also been recycling our carton boxes, metal, plastic, glass and cooking oil in Singapore. You may refer to our waste and recycling data on [page 37](#).

In addition, we track the amount of waste generated through impact measurement and participate in campaigns to raise awareness of the importance of reducing food waste amongst our staff and the community. For example, in December 2020, in compliance with state and municipal initiatives, BGS implemented anti-food waste campaigns to discourage wastage of food at all BGS rest areas and staff canteens.

Finally, we have also started developing sustainable packaging. This is a more complicated process as it requires the participation of several stakeholders in our ecosystem such as our customers, partners and suppliers. Tapping on each other's expertise, we collaborate on efforts to develop external packing for food using sustainable materials that will be a step in the journey towards sustainable packaging. You can read about our success story in developing sustainable service ware for Singapore Airlines (SIA) and the use of a biodigester to reduce waste by as much as 60% in the case study. Our next priority in food waste management is to increase our capability by developing ways to convert waste into useful output or reusable energy.



On-site biodigester can reduce volume of waste by as much as

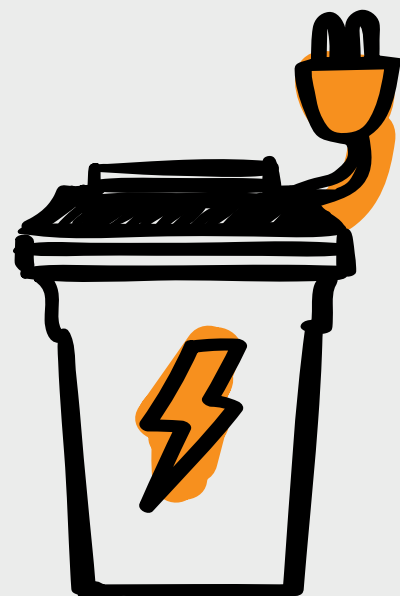
60%.

74 garbage segregation points set up in China's Beijing operations.

In Conversation with Kerry Mok



How does SATS leverage its leadership position to orchestrate an ecosystem approach to achieve a holistic approach to managing food and packaging waste?



Recognising that we are part of a larger, interdependent ecosystem, SATS strongly believes that partnership and cooperation are essential to creating a more sustainable world. SATS supports the not-for-profit, Aviation Sustainability Forum (ASF), which was originally named the Airline Sustainability Forum. The ASF was set up following a meeting of stakeholders across the cabin waste supply chain including packaging suppliers, converters, food and beverage manufacturers, airlines, airline caterers, airports, waste management operators and environmental consultants.

In 2020, the ASF joined the United Nations Environment Programme (UNEP) and was appointed as an Advisory Member of the UNEP's Global Tourism Plastics Initiative. This served as a valuable platform from which to better understand the broader problems associated with travel- and tourism-related plastic waste. In the

same year, the ASF conducted a series of engagements with stakeholders across the aviation industry and with governing bodies including IATA, ATAG, the ACA and ACI⁶, in particular. These engagements focused specifically on the regulatory framework that governs the treatment of cabin waste.

SATS' support for the ASF demonstrates our commitment to spearhead collaboration amongst key players across the aviation industry in order to drive collective action towards greater sustainability through the reduction of food and packaging waste.

⁶ International Air Transport Association (IATA), Air Transport Action Group (ATAG), the Airline Catering Association (ACA) and Airports Council International (ACI).



Recognising that we are part of a larger, interdependent ecosystem, SATS strongly believes that partnership and cooperation are essential to creating a more sustainable world.



Case Study

Closed-loop waste management solution in collaboration with Singapore Airlines

As Asia's leading food solutions and gateway services provider, SATS has a vital role to play in encouraging the adoption of more sustainable practices across the industry and supply chain.

Through responsible product stewardship and the incorporation of circular economy principles into our operations, we strive to grow our business sustainably, reducing our impact on the climate and environment. In addition, we build and nurture collaborative relationships with our partners, suppliers and customers, tapping on their insights and support as we collectively strive for greater sustainability. For example, we work with our customers to improve demand planning, reduce waste, and promote sustainable food packaging.

On 1 December 2020, we introduced a new range of environmentally friendly food packaging named Doodle as part of Singapore Airlines' (SIA) newly launched tableware series on selected short-haul flights. Made from natural materials, the new packaging not only reduces single-use plastics by 80%, it also allows food to stay fresh and enables the addition of soup and broth-based dishes to the menu.

SIA's new tableware comprises a leak-proof box, a paper cup made of Forest Stewardship Council-certified paper, a paper dessert box, and a 3-in-1 bamboo cutlery pack wrapped in paper. Featuring excellent grease and moisture barrier properties, the leak-proof box enables better heat retention to allow food to stay fresh over a longer reheating time, improving the quality of meals served on these flights. This also allows SIA to expand its economy class menu to now include a wider and more exciting variety of dishes such as congee, laksa and beef goulash soup.

Photo courtesy of Singapore Airlines



UNSDG



Case Study

Closed-loop waste management solution in collaboration with Singapore Airlines



Aviation meals must be carefully prepared to withstand unique conditions such as air pressure, transportation and long wait times while maintaining quality, freshness and taste. Tapping on our culinary expertise and knowledge of food and packaging technology, SATS collaborates with SIA to develop innovative and sustainable solutions that not only reduce the consumption of single-use plastics and improve waste management but also provide travellers with tastier meals and a more satisfying travel experience.

By adapting inflight service styles and using natural materials that are compatible with digesters, the launch of new tableware on SIA's flights represents a collective effort in the journey to reduce waste and drive more sustainable production and consumption on a

larger scale. The packaging solution that we developed replaces plastic casserole service ware, single-use plastic cups and polybags, which helps to reduce single-use plastics on meal trays by 80% by weight. By converting waste to energy, in the form of refuse-derived fuel (RDF), the on-site biodigesters at SATS can cut down the volume of waste requiring haulage by as much as 60%.

In addition to reducing the amount of waste we generate, implementing an efficient and effective waste management system is just as important. The RDF generated from the biodigester can be used as a fuel additive to power incinerators. Since December 2020, we have converted a monthly average of 6 tonnes of waste in this manner, producing around 4 tonnes of RDF which is used as fuel for incinerators in Singapore.