

Our Tampines Hub Hawker Center, Singapore

Type

- Food hall with reusable serviceware and food waste equipment

Best Practice Strategies

- 2.02 Plan a route
- 2.03 Design storage space
- 2.05 Consider staff procedures
- 2.04 Plan for collection
- 2.09 Provide equal convenience disposal (commercial)
- 2.10 Provide clear visual cues and signage
- 2.12 Develop awareness and education programs
- 2.16 Reduce materials consumption
- 2.24 Organic waste pretreatment (commercial)

Summary

Our Tampines Hub (OTH), is a mixed-use facility serving the new eco-focused neighborhood of Tampines, with over 250,000 residents. With a supermarket, 30 eateries and a 24-hour hawker center with 42 stalls and 800 seats, it generates a significant amount of food waste.

Every day 1.4 tonnes (1.6 tons) of food waste, including expired foods from the supermarket and leftovers from the eateries and hawker center, are taken to



“Our Tampines Hub” hawker center eateries and dining area that provides seating and reusable eating utensils.

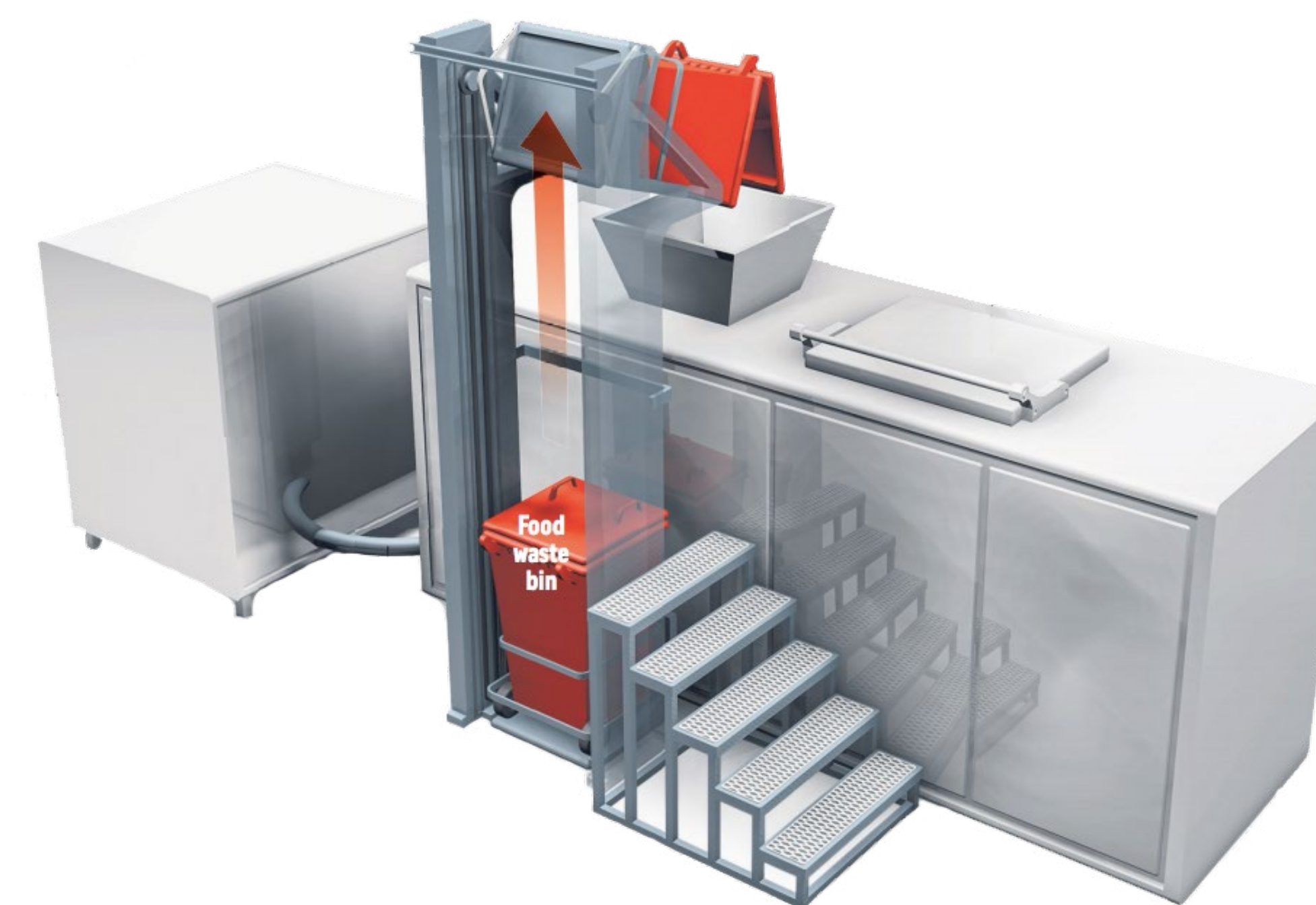
two food waste digesters in the OTH basement. These comprise a grinder, grease separator, microbial treatment and a filtration system that separates the output into fertiliser, liquid nutrients and non-potable water. The fertiliser and liquid nutrients are used in OTH's eco-community garden located on the roof and are also distributed to residents and schools monthly. The eco-community garden grows a variety of edible fruits and vegetables, and frequently hosts educational and engagement events where participants can harvest the produce and cook at their Wellness Center.

The hawker center uses reusable plates, cups, and utensils, which patrons bring them back to the collection area on a tray. Workers at these areas separate food scraps into collection bins and sort items for washing. Twice a day, the bins get wheeled to the food waste recycling room in the basement, where a bin lift makes it easy to empty them into the digester. All food and beverage tenants within the Hub have to undergo comprehensive training on food waste separation, and waste separation requirements are incorporated into their tenancy agreements.

The National Environment Agency (NEA) supported the program and has helped to evaluate and improve outcomes. In 2019, the NEA proposed a pilot scheme of installing an automated food waste collection conveyance system at OTH. With this system in place, the food stallholders and table-cleaners won't have to manually transfer the food waste bins to the digester, increasing hygiene, convenience and efficiency. The People's Association, the local government agency for community development, runs programmes to engage and educate the community through learning tours and volunteer opportunities.

Challenges

Challenges include preventing contamination of the food waste by sugar cane stalks, hard shells, coffee powder and non-organic items such as plastic packaging that cannot be processed by the digesters. After 4 years of operation, OTH aims to increase their zero waste efforts through further educational initiatives. More focus could also be placed on food waste prevention strategies and educating people on their habits and attitudes around food waste, as preventing waste is always environmentally better than recycling it.



Above: Reusable serveware and utensil return point at the hawker center.

Below: Digester used for processing food scraps (located in the basement of the hawker center).