



Sky's the Limit

From pre-order privileges to plastic-free utensils, the aviation sector is tackling the war on waste.

Words: Jenna Campbell

The aviation sector has long been criticised for its gas-guzzling ways, giving rise to new environmentally-friendly aircraft and a host of ambitious pledges and initiatives to reduce carbon emissions. But as the debate around climate change intensifies, it's the onboard operations that are coming under the spotlight. Up until recently, the issue of tackling cabin waste – notably leftover food and drink – has featured low on the agenda. According to the International Air Transport Association, a trade group representing around 300 airline carriers, the sector generated around 6.7 million tonnes of cabin waste in 2018, the majority of which went to landfill or incineration. Furthermore, it is estimated that between 20–30% of this was untouched by passengers. Food waste has also been identified as a global issue by the United Nations, and is increasingly hard to ignore, particularly in the wake of the pandemic and resulting shift in consumer expectations. “The pandemic

has accelerated eco-consciousness with consumers increasingly expecting a positive environmental response when it comes to sustainability and climate change,” explains Anne De Hauw, founder of In Air Travel Experience, a boutique consulting firm specialising in curating customer experience and accelerating innovation for travel companies. “The first step airlines should take is to move to an on-demand consumption model such as pre-order. This model ensures caterers only on-board meals that will actually be consumed, resulting in significant waste reduction. Secondly, industry stakeholders should collaborate and work with regulators to simplify the in-flight service and standardise the materials used to generate opportunities for a circular ecosystem.” This step change in consumer expectations, coupled with stricter health and safety measures, has prompted a new sense of purpose as far as waste management and sustainability targets are concerned. Notably, the fresh perspective has contributed to the



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NEOS FLY+
SMART IN-FLIGHT FOOD TRAY

proliferation of eco-friendly catering solutions, from Lufthansa’s fresh food packaging – made from an agricultural waste material and produced using 100% renewable energy – to Finnair’s birch cutlery and paper cups and All Nippon Airways’ new meal trays crafted from biodegradable materials such as bagasse, a waste fibre created from sugarcane.

For PriestmanGoode, a London-based design studio and consultancy specialising in travel experiences, the uptick in sustainably conscious food and drink packaging is a welcome advancement. In 2019, the firm envisioned a sustainable meal tray made from coffee grounds, which encompasses a dish made from wheat beans and a coconut palm wood spork, offering caterers a new way of curating in-flight F&B experiences. Featured as part of the ‘Get Onboard: Reduce, Reuse, Rethink’ exhibition at the Design Museum in London, the re-fashioned tray also experiments with lids – usually transparent plastic – by using pressed banana leaves for savoury dishes and an edible waffle cone for sweets.

“We used the concept to question what is provided to the passenger, rather than the current default to provide everything as a matter of course,” notes Jo Rowan, Associate Director at PriestmanGoode. “We know that service is hugely important to airlines for differentiation, however passengers are becoming increasingly aware of waste and sustainability. We wanted to raise consumer awareness of the vast issue of waste in travel. The ability to see and comprehend the scale of the problem and how individual choices can positively impact the industry was key to our concept. We also considered a composting system – we are seeing innovations now to enable this to generate fuel – re-framing waste as a valuable resource.”

Beyond packaging and eco-friendly utensils, and echoing De Hauw’s call for a shift towards on-demand menu options, many carriers have also sought to satiate appetite for customisation through new ordering concepts. In early 2021, British Airways unveiled its Speedbird

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Café pre-order menu, allowing customers to personalise their journey by purchasing food, drink and in-flight items up to 12 hours before departure. The menu is crafted by Michelin-starred chef Tom Kerridge with a special focus on British provenance, and helps the airline in its efforts to reduce onboard waste as part of its commitment to net zero emissions by 2050. Similarly, Transavia has partnered with Just Eat to give customers the option to order their favourite meal via Just Eat up to 90 minutes before the flight, with the food then freshly prepared and delivered directly to the aircraft.

Elsewhere, American airline JetBlue has collaborated with New York-based restaurant group Dig to offer farm-to-flight, build-your-own meals, giving passengers the ability to

customise seasonally changing dishes via their in-flight screens. The airline has also taken its farm-to-tray initiative to the next level, experimenting with urban farming at New York’s JFK Airport by building the world’s first blue potato farm at an airport. The organic soil that the plants are grown in comes partially from food waste collected at Terminal 5, which is composted by organic farms in upstate New York. Meanwhile, Swiss International Air Lines has come up with the idea of offering its customers unsold fresh food items at a reduced price. The airline has teamed up with Too Good To Go, a mobile app that connects customers to outlets with food surplus, and is trialling the initiative on the last flights of the day from Geneva. The availability of items is communicated via an in-flight announcement and passengers are offered a bag containing one, two or three items – though the contents of the bag are not revealed in advance due to the unpredictability of the food waste.

“Keeping track of what is sold and the circumstances in which this happens is the best way to understand where food is being wasted,” explains Paschalis Loucaides, Managing Director at Too Good To Go. “This information can then be used to more accurately forecast what food should be ordered for each flight depending on the route, time, passenger numbers and passenger preferences. However, where there is more unpredictable food waste, the challenge for airlines is getting this surplus food in the hands of consumers. This is where apps like Too Good To Go can help. It’s a win-win-win; customers get delicious food at a great price, food isn’t unnecessarily thrown away and we’re doing something beneficial for the environment.”

Airlines are also leveraging technology that harnesses artificial intelligence and image recognition to analyse in-flight consumption habits. Earlier this year, Etihad Airways signed a memorandum of understanding with UAE-based product development and design company The Concept to develop sustainable technology that monitors food consumption on its flights.

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ANNE DE HAUW, IN AIR TRAVEL

The partnership will see Etihad provide industry expertise and access to its catering facilities to help The Concept with the development of the NEOS Fly +, a smart tray made from sustainable materials including PET bottles previously used on board, that will provide real-time data on the food and beverages consumed. Taking a similar approach, on World Food Day 2020, Emirates Flight Catering (EKFC) committed to achieving a 35% reduction in food waste across operations in Dubai, which at its peak sees 225,000 meals prepared per day. In order to achieve this target, EKFC is working with Winnow to implement a food waste management system using a camera and smart scales to recognise the different foods being throw away and calculate the financial and environmental cost.

Whilst there are many different ways to tackle the issue of food waste on board, there seems to be a consensus regarding what the future will look like. Most likely, at the heart of the sector's approach will be an eagerness to utilise the latest technology and data to track

consumption metrics that will allow them to tailor supply and demand, while also catering to the latest food and drink tastes and trends.

“The great thing about the aviation sector is that it is constantly innovating to create the best in-flight experience for passengers,” concludes Loucaides. “I really hope that food waste reduction is a continued innovation and that we can work with other airlines to implement our solution to tackling the issue. I also expect there to be much more capacity for pre-ordering to specific tastes and needs and tailored offerings to suit dietary requirements.”

It's a sentiment echoed by De Hauw: “I think the next innovations in F&B for airlines will be both digital and sustainable. Pre-ordering your meal through your own device will finally take-off and not only massively reduce cabin waste and weight, but also improve customer satisfaction because of increased choice, improved food quality, personalisation and more conscious consumption. The time for change to digitise the in-flight experience and tackle the waste problem for good is now.”

