

Reducing the environmental impact of Front of House packaging

This guidance is useful for people responsible for the specification of packaging and catering consumables in the hospitality and food service sector. It provides strategies to reduce their environmental impact and costs.



On-site canteen at Compass Group UK & Ireland

Background

The hospitality and food service sector produces an estimated 2.87 million tonnes of waste each year of which 1.3 million tonnes is packaging. It is estimated that 56% of the packaging that is thrown away could have been recycled¹. Packaging and food waste reduction, and improved waste management, present a major opportunity for caterers to reduce waste and environmental impacts (CO₂e), and to save money.

This guidance is based on the findings of a WRAP-funded project aiming to reduce the environmental impact of Front of House (FOH) food to go packaging and catering consumables for Compass Group UK and Ireland. The project aimed to increase the company's contribution to the Hospitality and Food Service Agreement (HaFSA) targets while also providing guidance for other organisations across the sector.

"Reducing disposable packaging waste is a top priority for Compass Group UK and Ireland. Working with WRAP and Giraffe Innovation has helped us develop guidance for our procurement team that will reduce our packaging procurement and compliance costs, reduce the waste we generate at our client sites and increase the amount of food and packaging waste sent to recycling or AD. This project has helped us to provide the most environmentally sound packaging options available and will significantly increase Compass' contribution to the HaFSA waste prevention and management targets in 2015."

Celena Fernandez - Environment Manager,
Compass

Introduction

Packaging plays an important role in safeguarding the integrity of products. Its specification and procurement is based on many factors, including the technical properties of the material, its sourcing, functionality, manufacturing capability and cost. If it is poorly specified, the resulting

waste could have more of an environmental impact than that of the packaging.

Carbon impact can be largely influenced at the specification and procurement stage of packaging – determining which materials are used, how much is used, how it is used and how easy it is to recycle.

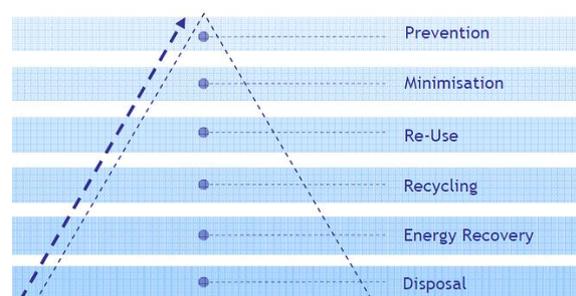
This guide aims to provide organisations within the hospitality and food service sector with strategies to reduce the environmental impact of packaging, with a particular focus on waste and carbon reduction, and associated costs. Any changes to packaging should be made without compromising the functional performance, aesthetics or reducing the overall resource efficiency of a product/packaging supply chain.

Guidance

There are three different types of packaging; primary, secondary and tertiary. Brief definitions of these are as follows:

- **Primary** – contains the final product and is designed to protect and preserve it;
- **Secondary** – used to group and protect products during transport and storage; and
- **Tertiary** – Outer packaging used in addition to secondary packaging for transport.

The waste hierarchy (below) is a simple way of prioritising the strategies for reducing the environmental impact of packaging and catering consumables.



The waste hierarchy: the most desirable strategy is at the top, and the least desirable at the bottom.

The guidance describes actions that organisations can undertake in relation to reducing the impact of FOH food to go packaging and catering consumables, following the main headings from the hierarchy, as derived from the methodology used in the project with Compass Group UK & Ireland.

¹<http://www.wrap.org.uk/sites/files/wrap/Overview%20of%20Waste%20in%20the%20UK%20Hospitality%20and%20Food%20Service%20Sector%20FINAL.pdf>

It is recommended that considerations outlined in this document are applied to all packaging and catering consumable items procured, starting with items with high order volumes and heavily packaged items. This is where small changes may lead to the greatest benefits.

As part of a review process it is necessary to engage essential stakeholders such as those in charge of developing procurement policy and key suppliers. This will ensure that recommendations are technically feasible and deliverable.

Prevent and minimise

These actions concern the removal and reduction of packaging materials and should be considered in light of their function across the entire supply chain. For instance, primary pack minimisation must not create yield loss through damage or result in additional secondary and tertiary packaging. The table below outlines more specific recommendations that can be used to reduce the cost and environmental impact of FOH food to go packaging and catering consumable items – these could form a basis for additional procurement clauses.

| Activity: | Guidance: |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reducing the weight of material used in a pack | On procurement lists there are often multiple packs that perform the same function which use different amounts of material. Look for opportunities to remove the heavier options and replace them with the lighter alternative already on the approved product list. Ask your suppliers to match the lightest for weight. If a pack seems too heavy duty for its function ask your supplier to review the amount of material used. |
| Designing out unnecessary layers or elements of packaging | Consider the function of every component of the packaging. Question if each feature is necessary. |
| Reducing the size of the pack by designing out head space or voids | Match the size and shape of the container to the contents. Ask your supplier to supply the product in an appropriate sized packaging solution. |
| Consider offering a range of sizes | If customers are using large containers to takeaway small portions, provide appropriately sized containers. |

| | |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specify the most efficient shape both in terms of material use to perform a function and packing for transport. | A shorter, squat container could use less material than a very tall, thin one, for example. Also consider if the design/shape can be packed efficiently and effectively for transport. |
| Considering alternative lower impact materials | Review the environmental impacts of different packaging materials being used. For more information on material use see the WRAP Packaging and Recyclability Guidance and Material Specifics ² , and related carbon conversion factors. ³ |
| Ask your suppliers for recycled content | Plastics can contain high percentages of recycled material which reduces the need for virgin resources. Ask your suppliers for this (or more of this). |
| Make packaging work harder by asking for dual-functionality | Consider whether information can be printed on certain packs to avoid separate labels. |
| Incorporating new technologies | New production processes, materials or technologies may be available to reduce the amount of material used whilst retaining performance. Your suppliers should be abreast of such developments. |
| Primary / secondary / tertiary packaging | Any change to the primary FOH packaging should consider and avoid increases in the requirement for other associated packaging (i.e. secondary or tertiary packaging) |

Re-use

Re-usable options for FOH packaging and consumable items can be considered as alternatives to disposable ones to lower the carbon impact of packaging. Certain factors need to be accounted for to be able to make a fair comparison of the environmental impact of each type. For example, the number of times a product can be used before it becomes more cost and environmentally efficient than a disposable alternative.

Assuming that a better environmental outcome can be obtained by using a re-

²<http://www.wrap.org.uk/content/packaging-and-recyclability-guidance-nov-2009> and

<http://www.wrap.org.uk/content/material-specifics>

³<http://www.wrap.org.uk/sites/files/wrap/CC3%20Summary%20Report.pdf>

usable option, an important consideration is the ease with which the customer can opt for a re-usable packaging option (i.e. a porcelain plate or bowl) instead of a disposable option such as a hot food clamshell or soup pot. The positioning of re-usable and disposable options at FOH can have an impact on waste arising. For instance, some customers use a takeaway receptacle even when eating in. Companies should try to position re-usable items such as plates in a prominent position to encourage their use. Prioritising re-usable items can lead to reductions in waste, costs and carbon associated with producing, transporting and disposing of single use packaging.

Recycle

Procurement

The recycling of packaging products at the end of life creates recycled material that can be used in new products and packaging.

Recycling starts with specifying materials that can be recycled⁴. It is important to understand what these materials are and how the materials can be recovered⁵. Generally, products made out of recycled materials take less energy to produce than those that use virgin materials⁶. Both designing for recyclability and specifying recycled content in products helps to minimise overall carbon impacts over time.

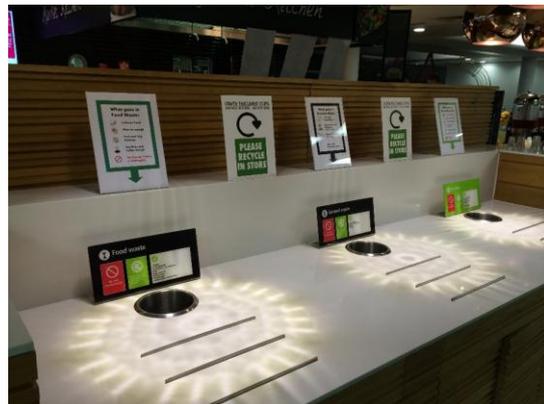
Waste management options available to companies also affect the potential for ongoing recycling of packaging waste. For example, compostable packaging (certified to standard⁷) is suitable where waste is sent to an industrial composting end process but not where the recycling takes place at an anaerobic digestion (AD) plant because it does not break down anaerobically. In this case the AD operator commonly removes packaging prior to the digestion process, including biodegradable packaging. Packaging that is removed in this way is then often sent to landfill or energy from waste.

Waste segregation

On-site, it is recommended that there should be well positioned, clearly labelled bins for material identification and segregation for customers and staff. If the option to segregate is not available, valuable materials could be lost. Good graphic communication signage⁸ should be used to clearly show what can go into each waste stream; people tend to respond well to identifiable, clear and simple imagery.

The availability of material segregation points will only be of use if the waste streams are kept separate. This should be communicated, and training provided, in order to ensure the purpose for doing this is understood.

Recycle – Example from project with Compass Group UK & Ireland



The introduction of clearer signage and training for staff at a Compass Group UK and Ireland site resulted in less contamination in streams of dry mixed recycling waste and food waste. During the short trial, contamination levels improved from 43% to 5% in the dry mixed recyclable stream and from 24% to 2% in the food waste stream, thereby ensuring these streams are of a quality suitable for onward recycling.

⁴<http://www.wrap.org.uk/dfir>

⁵<http://www.onpackrecyclinglabel.org.uk/>

⁶http://www.wrap.org.uk/sites/files/wrap/Environmental_benefits_of_recycling_2010_update.3b174d59.8816.pdf

⁷BS EN 13432, ASTM 6400 and BS EN 14995 standards

⁸https://partners.wrap.org.uk/search/?category_campaign=100

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