

Reduce, reuse, recycle: why foodservice companies must press ahead with their packaging policies

Contents

Introduction	2
Chapter 1: Prevention should be the priority	6
Chapter 2: Reuse is full of opportunities	12
Chapter 3: Recycling levels prove hard to reach	18
Chapter 4: A look ahead	24

Partner Comment

We are proud to continue our ongoing partnership with Footprint Intelligence on the 2023 annual Foodservice Packaging report. These yearly reports have proven to be an invaluable resource for the sector as evidenced by the ongoing download data and widespread usage. We have enjoyed a great deal of positive feedback and we're delighted that it continues to be a much anticipated annual report.

Last year's report dealt with much of the fall-out from the pandemic as the impetus on hygiene and sustainability hung in the balance. In this year's report there is much evidence that industry's proverbial eye is firmly focused on the sustainability agenda once again. Whilst challenges remain prolific we know that this year's packaging report will help the sector navigate its objectives on a path to a more sustainable future.

Sally Molyneux, *Sales Director UK & Ireland*



Introduction

Pressure piles on packaging

Our 2022 report considered the impact of the covid-19 pandemic on foodservice packaging, and whether efforts to reduce, reuse and recycle had waned. We found brands were still committed but were struggling to find and fund suitably sustainable solutions. The pace of policy making had also slowed.

Twelve months on and the sector has been grappling with a number of other geo-political issues that have seen supplies stretched and prices skyrocket. The cost of living crisis has already led to calls for some green regulations to be postponed, while net-zero commitments have grabbed the attention of corporate sustainability leaders.

Surely, then, packaging has slipped (quietly) down the priority list as campaigners and consumers ease off and businesses are given breathing space to ride out these storms? Not a chance. If anything, the climate crisis, cost crunch and supply chain chaos have heightened concerns and reaffirmed the need to go further and faster.

Our exclusive research for this report, conducted by Vypr with 1,006 people in the UK, shows 60% are as concerned about packaging as they were this time last year. What's more, 30% are more worried about it. Some 84% are either 'slightly' or 'very' concerned about the amount

of packaging on the food and drink they buy on-the-go. "Packaging is a priority for us as we know it matters to our customers," says Nicola Pierce, director of ESG at Burger King.

Asked what items companies in the sector should focus on and the answer is: everything. However, food containers and disposable cups should be prioritised ahead of bottles (testament perhaps to the fact that plastic bottles boast one of the highest recycling rates and will also be given a further boost by incoming deposit return schemes). The proportion of bottles recycled on-the-go is unclear. However, new research by Wrap, a charity, showed that very few cups (2.8%) and "close to zero" fibre-based food containers are currently recycled¹.

The lack of progress has given rule makers reason to step in. This promises to be a big year for regulation relating to packaging. In November, the first intergovernmental committee meeting on the global plastics treaty took place, while in December the EU published its proposals for new packaging and packaging waste rules, which include a number of targets and restrictions that will affect foodservice companies² (see *chapter 2*).

With Scotland and Wales committed to follow any green EU

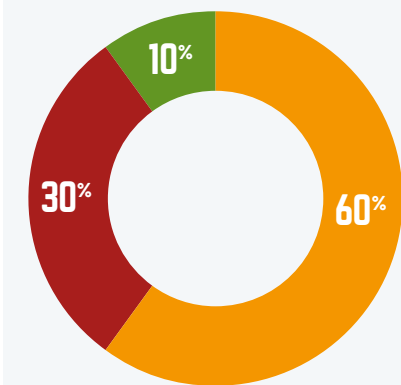
regulations, UK companies are watching developments closely. Scotland last year aligned with the single-use plastics directive (SUPD) by introducing bans on a number of single-use plastic items including expanded polystyrene cups and plastic cutlery. Wales will introduce the bans later this year.

Policy imperfections

In January, the UK government announced it would follow these leads by banning a range of single-use items including plastic cutlery, plates and polystyrene cups³. It is also assessing a call for evidence on charges for disposable cups, including fibre-based ones used for hot drinks, and a ban on supplying single-use packaging for those dining in⁴. The proposals are controversial, as later chapters discuss, with some industry representative groups lobbying hard for "more science" and more time.

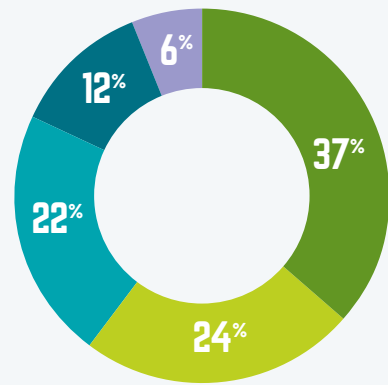
UK extended producer responsibility (EPR) for packaging laws are (belatedly) beginning: companies have started collecting data on their packaging waste ready for reporting later this year⁵. EPR is designed to move the full cost of dealing with household packaging waste away from taxpayers and councils and on to packaging producers. Full details on how

Are you more or less concerned about packaging than you were at this time last year?

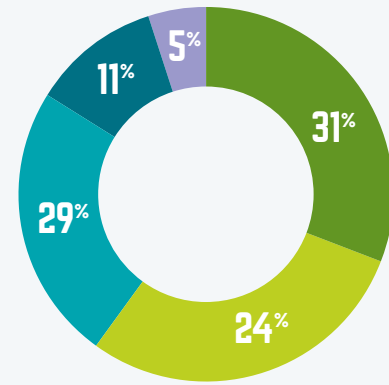


60% About the same
30% More concerned
10% Less concerned

Regarding the current issues surrounding food packaging who is ...
... most responsible for the problems?
... most responsible for solving them?



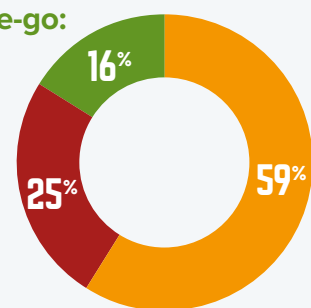
37% Food businesses
24% Packaging businesses
22% Government
12% Consumers
6% Campaigners



31% Food businesses
24% Packaging businesses
29% Government
11% Consumers
5% Campaigners

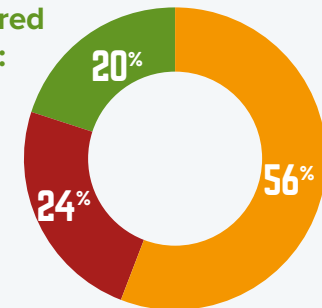
Concern about the amount of packaging on food and drink bought ...

... on-the-go:



59% slightly concerned
25% very concerned
16% not at all concerned

... delivered to home:



56% slightly concerned
24% very concerned
20% not at all concerned

the system will work are yet to be published which has left businesses in the dark about the exact financial implications for them. Thérèse Coffey, the environment secretary, said the rules are complex and her team has at times been guilty of “seeking perfection”⁶.

The delays are “very frustrating”, says Justin Turquet, head of sustainability at Bunzl Catering Supplies.

“The challenge has always been to ensure we are not stranded with stock. I think government needs to

appreciate that businesses are is not trying to block or obstruct legislation but they do need clear information and clear timelines to put resource to the changes and effectively implement them.”

Some 95% of senior packaging specialists view keeping up with legislation as their primary concern, according to a survey by packaging consultancy Aura⁷. Delays to policies like EPR have also had a knock-on effect for reaching voluntary targets some companies have set through the UK plastics pact. Two

of the targets – that 100% of plastic packaging is recyclable and 70% is recycled – are now in jeopardy, according to Wrap, which runs the agreement⁸.

Recent updates of both the UK plastics pact and the global plastic commitment, run by the Ellen MacArthur Foundation, have sparked criticism of such voluntary approaches to tackle plastic packaging waste⁹. Few foodservice or catering companies are involved and have long been reticent to sign up. Scrutiny both of signatories and

Foodservice packaging – state of play

Pressure on policymakers and businesses to tackle all single-use packaging is piling on but the pace of change needs to pick up. Recycling rates are proving hard to reach, reusable packaging remains niche and reduction of single-use must accelerate in order to address the twin crises of both climate change and biodiversity loss. This report details what’s happening, what isn’t and what’s next.

Waste created	Reduction interventions Chapter 1	Reuse interventions Chapter 2	Recycling rates Chapter 3
3.2bn fibre cups	National Bans	20p charge (Scotland?)	2.8% fibre cups
2.9bn lids	Burger King + Starbucks removing lids	5p charge (Starbucks)	0% lids
1bn plastic cups	McDonald’s ↓ 41% polystyrene	Reuse targets? (EU)	2-4% plastic cups
3.2bn fibre-based containers	Reduction target? (Plastics Treaty)	Trials: Burger King, Starbucks, Just Eat, McDonald’s	0% fibre containers
679m boxes, trays and pots (England)	Plastic plates, bowls, trays ↓ 96% (Plastics Pact)	50% ↑ reuse saves 2.6MtCO ₂ e & £9.2bn (EU Horeca)	0% boxes, trays and pots (England)
4.25bn cutlery (England)	McDonald’s 27% ↓ small plastics	62% support reuse for takeouts	10% cutlery (England)
	Starbucks 35% ↓ small plastics		

Sources: Wrap/Valpak, Zero Waste Scotland, UK government, Footprint, Vypr.

Note. Figures are UK unless stated.

those not currently signed up could well intensify this year: NGO activity isn’t at the heights of its 2018/19 peak but remains “very intense” compared to the pre-2016 years, says Robert Blood from Sigwatch, which tracks environmental campaigning.

Restaurants, caterers and cafés should note that consumers rank sustainable packaging (21%) almost as highly as animal welfare (22%) and limiting food waste (24%) in terms of their priorities. And when it comes to the problems with

packaging they lay the blame firmly at the door of food and packaging businesses and the government. They are also the ones who should be responsible for providing the solutions that will solve this environmental crisis, according to our survey.

Businesses are being pressured by consumers, interrogated by investors and pushed by policy makers. Many have also made net-zero commitments, which means the volume of packaging used and its

carbon footprint must be counted. Brands are asking for specifics about weight, transport, recyclability – even the glues that are used. “We’re no longer talking to an audience that’s like a deer caught in the headlights,” said Rowena Curlew, CEO and co-founder of drinks design agency Denomination, recently¹⁰. “They are genuinely committed.”

The next three chapters discuss the trends, trials and tribulations when it comes to reducing, reusing and recycling foodservice packaging.



CHAPTER 1

Prevention should be the priority

“More of our clients are working to reduce packaging because they have big sustainability goals to achieve too.”

Simon Mussett, head of environmental sustainability, Sodexo

“To resolve the various ecological crises we face we need to dramatically cut consumption, but it would be a brave politician who admits this,” explains David Newman, managing director at the Bio-based and Biodegradable Industries Association.

Indeed, it is often overlooked that prevention sits at the top of the waste hierarchy¹¹, above both reuse (see *chapter 3*) and recycling (see *chapter 4*). There are signs though that policy makers, businesses and consumers are starting to shift their focus upwards towards reduction, albeit tentatively.

The UK government, in its 25-year environment plan, set a target to eliminate avoidable or unnecessary plastic waste by 2042¹². It has started with some of the low-hanging fruit, such as straws and stirrers, but

more market restrictions are likely on the way. Sales of plastic plates, cutlery, polystyrene cups and food containers could all be restricted by October 2023 under new proposals¹³. Plastics made from fossil fuels as well as bio-based, biodegradable and compostable ones are all likely to be included in scope of the regulations.

Costly cuts

Around 90% of cutlery used in 2018 was plastic, according to the government’s calculations. This is a headache for foodservice businesses – wooden cutlery, the main alternative, has a poor reputation (usability) and is more expensive. Alternatives to plastic cutlery are double the price, according to UK government data, while paper boxes are more than three times the cost of those made from polystyrene (4p versus 14p)¹⁴.

Adding costs to businesses already facing price spikes in not just packaging but energy and food too is harder than ever to justify – food industry representatives and UKHospitality have already called for EPR to be deferred¹⁵. Government officials are keen to press on given so many policies have been delayed on the back of the pandemic, the war in Ukraine and the political upheaval in Westminster. However there is undoubtedly flexibility in the final

schemes: in Scotland for example the costs of a DRS, due to start in August, have been cut and smaller retailers can now opt out of the scheme due to concerns over rising costs¹⁶.

Scotland wants to up the pace on packaging policies, with the country having already aligned with the EU single-use plastics directive (SUPD) by introducing bans on a number of single-use plastic items including expanded polystyrene cups and food containers, plastic cutlery and stirrers¹⁷. The move required a statutory instrument to be signed in order to exclude the bans from the UK Internal Market Act. This could enable devolved administrations to continue tracking new EU green rules, including those relating to packaging waste (see *Single-use shake down* overleaf).

Such restrictions are popular with the public – 80% of Brits support the idea, according to Ipsos research¹⁸. Globescan has tracked sustainable behaviours since 2019 and has found that more people are avoiding both single-use plastic (42% in 2019 versus 47% in 2022) and excessive packaging (40% versus 45%)¹⁹.

Ditching disposables

The focus is often on plastic. Yet bans often do little more than force businesses into switching materials. “Plastic is not the problem; single

Single-use shake down

The new rules and proposals that promise to reduce levels of disposable plastic packaging in foodservice settings



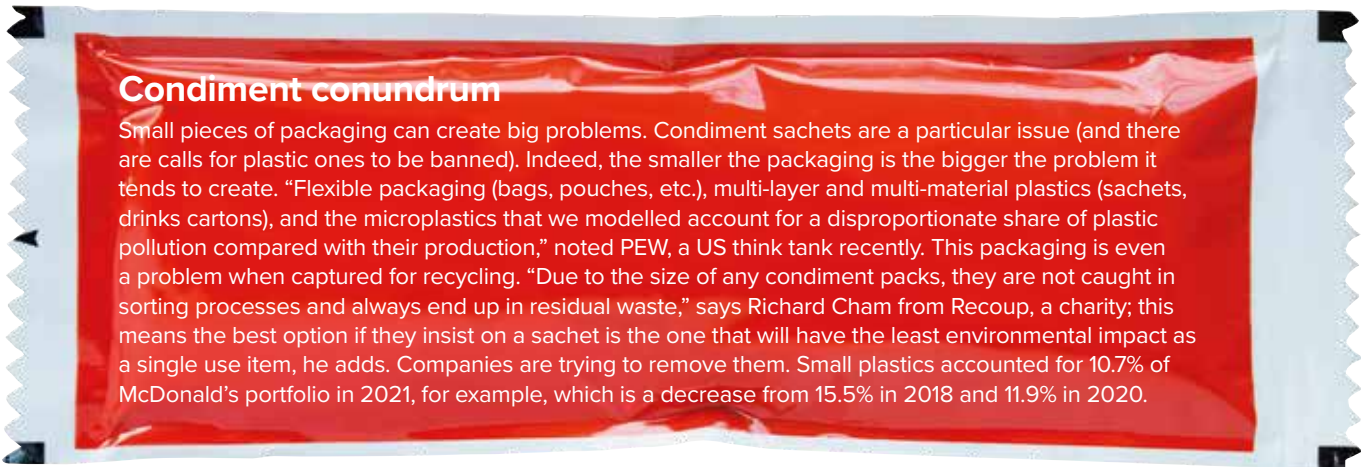
use is,” says Miriam Adcock from Zero Waste Scotland, which has been working with the Scottish government on its SUPD policies. Many foodservice businesses have for example been attracted to compostable packaging, says Adcock, which is seen as “the bees knees” but costs more and often ends up in landfill (the EU is looking to restrict compostables to specific applications, like tea bags and fruit and veg stickers, to ensure they are composted^{20,21}).

ZWS has been running a series of pilots under its ‘ditching disposables’ scheme to encourage smaller foodservice businesses to reduce their single-use packaging and adopt reuse schemes. Businesses have been removing napkins and trialling new packaging for chips that has a “kink” in it to hold any condiments. Small and light packaging can certainly create big problems in terms of pollution and processing (see *Condiment conundrum*).

Larger companies in the sector have been gearing up for single-use bans for a number of years, the mood music being set by campaigns like the ones run by Hugh Fearnley-Whittingstall (on coffee cups) and anti-plastic campaigners (following BBC Blue Planet programmes).

Sodexo, the contract catering firm, established a working group five

Businesses have been removing napkins and trialling new packaging for chips that has a “kink” in it to hold any condiments.



years ago to look at this issue and by 2021 had enacted most of the SUPD, explains head of environmental sustainability Simon Mussett. There were cost implications and some geographies “liked plastic” he says but the company took a firm stance and published a disposables sourcing guide for use throughout Europe (see *Footprint’s* 2022 packaging report²²). “More of our clients are working to reduce packaging because they have big sustainability goals to achieve too,” he explains.

Those signed up to the UK plastics pact – mostly FMCG brands but also the likes of Apetito and McDonald’s – boast an 84% reduction in ‘problematic’ and ‘unnecessary’ plastic packaging since 2018. Some 620 million of these problematic items have been removed from sale, according to December’s annual update²³, with use of disposable

plates, bowls and cutlery having fallen by 96%. The target has been expanded to cover more items, including non-compostable tea and coffee bags, single-use plastic sachets and jiggers used in restaurants, and plastic packaging for fresh, uncut produce.

Losing lids

In foodservice settings the lids for drinks are a problem plastic. Research by Wrap shows that recycling rates for coffee cup lids, most of which are made from polystyrene, is close to zero, for example²⁴. That’s 2.9 billion lids ending up in landfill or incinerators. There are also 200 million cardboard sleeves used, of which 2.8% are recycled.

Costa has been working on a “100% recyclable” fibre-based lid which has half the carbon footprint

of the plastic one. Some 150 stores were involved in trialling the lids in 2022. They are more expensive and there is only one manufacturer in the world but regulators want rid of polystyrene so it pays to be ahead of the game. Wales, for one, is set to ban polystyrene lids (for both cups and containers) later this year.

It’s not always possible to remove such packaging (think of consumer safety for hot drinks) but when it is there can be economic, environmental and reputational benefits. McDonald’s says it has reduced plastic straw and lid use in some European and Latin American countries through ‘strawless lids’ and ‘upon request’ programmes. Cold drinks served to customers dining in come without straws and lids in Latin America.

Burger King meanwhile has removed the lids from its soft drinks

Ditching disposables

A one-year trial run by Zero Waste Scotland to reduce single-use packaging in 10 food and drink businesses resulted in⁶²:

- Sauce sachets down 99% (switched to reusable bottles & sachets on request)
- Takeaway cup orders down 96% (charge for single-use & cup loan scheme)
- Straw orders down 92% (switch to reusables)
- Stirrer consumption down 86% (available on request only)
- Napkin use down 64% (available on request only)
- Takeaway container use down 56% (loan scheme for reusables)



across its UK restaurants, saving 17 million lids’ worth of plastic and costs. “It makes complete sense,” says Pierce. “It’s only part of the picture in terms of what we are working on but hopefully it captures people’s attention and gives them a route into our work on sustainability.”

Money talks

Investors want to lift the lid on plastics too. Companies face a US\$100bn (£82bn) annual financial risk if governments require them to cover waste management costs at expected volumes and recyclability, but 33% don’t have plastic-related targets, according to the Carbon Disclosure Project (CDP) (see

Clear on plastic). Their exposure to commercial, legal, and reputational risks linked to their dependence on plastics is therefore unknown.

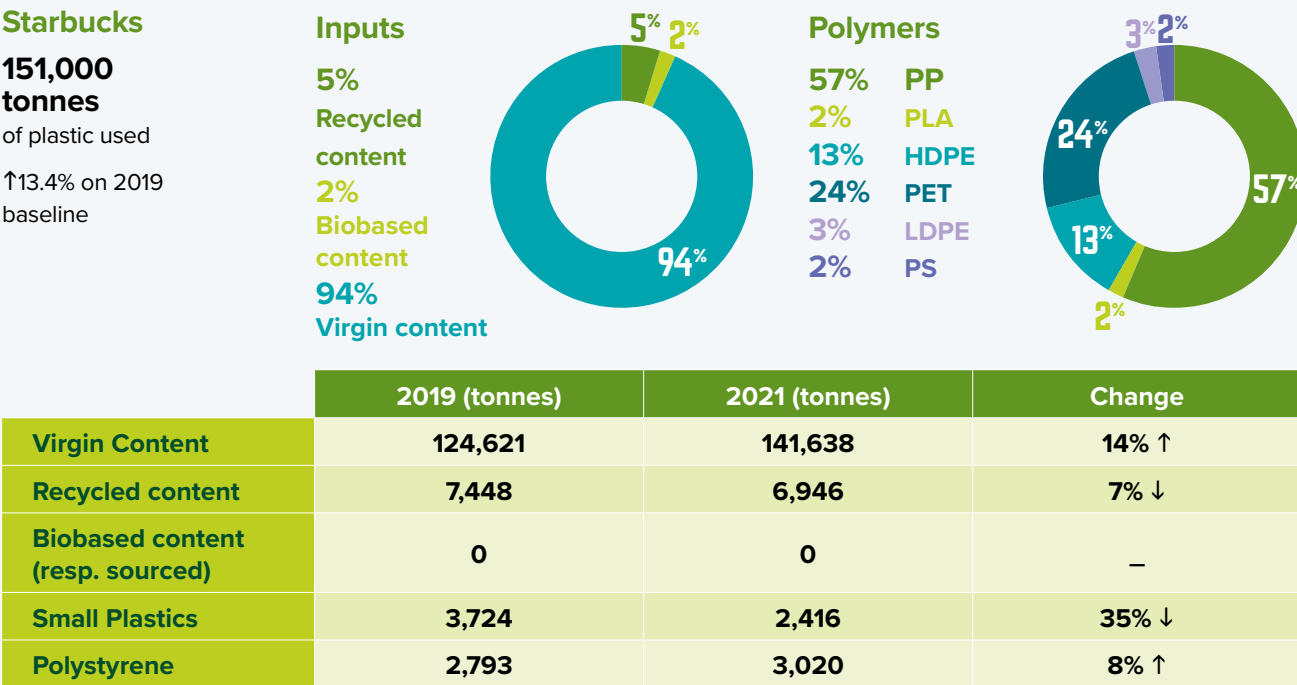
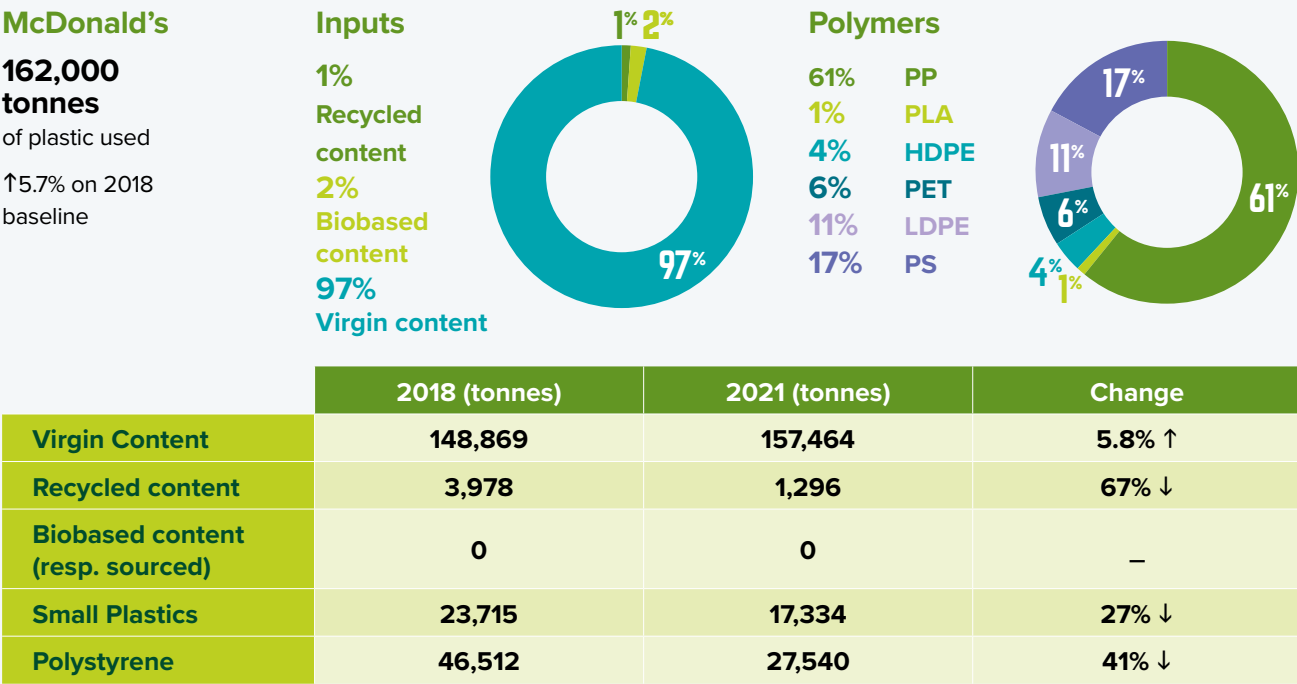
Whether such disclosures can be done voluntarily is debatable. The Ellen MacArthur Foundation think tank has raised the bar in terms of the publicly-available information FMCG companies are offering but few in foodservice have revealed their plastic (let alone their entire packaging) footprints. If the picture doesn’t improve, pressure will grow on regulators to act: MPs on the House of Commons environment, food and rural affairs committee (Efra) recently called on the government to create a taskforce to explore the role of mandatory

reporting of plastic footprints, as well as the use of charges and campaigns to drive reuse²⁵. Plastic reduction will also be a key debate as negotiations for a new global plastics treaty gather pace. The timeline for a deal is tight (sometime in 2024) and there is much to thrash out. Initial talks showed a division in demands: big oil and gas-producing countries, like the US and Saudi Arabia, see plastic as their plan B and want a bottom up deal focused on recycling; another coalition covering almost a quarter of UN member states (including the UK) wants restraints put on plastic consumption and production. Could politicians be braver than expected?

Clear on plastic

Foodservice companies have been far more reticent than their FMCG counterparts to come clean about their reliance on single-use packaging. This means many companies still have a limited understanding of how they contribute to the plastic crisis. Investors, campaigners and regulators are all pushing for more transparent public reporting. Starbucks and McDonald’s are ahead of the game thanks to a project with WWF. Their latest footprints were published in December 2022.

Note. PP (Polypropylene), PLA (Polylactic acid), HDPE (High-density polyethylene), PET (Polyethylene terephthalate), LDPE (Low-density polyethylene), PS (Polystyrene).



Sources. WWF Resource project⁶³, Footprint analysis



CHAPTER 2

Reuse is full of opportunities

“Evidence shows a small charge on single-use cups can be hugely effective in encouraging people to switch to a reusable alternative.”

Lorna Slater, circular economy minister, Scotland

Is reusable packaging stuck in a rut? Look at the latest update on how FMCG brands are performing and there is little doubt it is. Reusable packaging still accounts for just 0.2% of the plastic used by members of the UK plastics pact²⁶. The 2022 update from the Ellen MacArthur Foundation for its global plastics commitment showed just 1.2% of the packaging in 2021 was reusable (down from 1.5% two years ago) and fewer companies are now planning pilots^{27,28}.

Both manufacturers and supermarkets appear to be struggling to scale what appeared to be a number of promising pilots²⁹. “If it was easy to deploy a reuse system that delivered a better experience, was more convenient and cheaper

then everyone would already be doing it,” explains Claire Rampen, co-founder of Reath, which is using data to make reuse systems scalable, compliant and efficient.

There are signs however that foodservice is about to accelerate efforts on reuse as companies embrace the carbon and potential cost benefits, improve convenience through collaboration, and get ahead of looming regulations that will set new targets and ban single-use in some foodservice settings.

“There’s a big difference between foodservice and the rest of the packaging planet,” adds Safia Qureshi, CEO at ClubZero, which is working with Just Eat for Business to supply food in reusable packaging to offices in London from 80 restaurants and cafés. She talks of such deliveries being an “effortless” experience for customers with lunchtime packaging picked up later that day.

Convenience is of course key – wide availability of schemes and ‘not having to go out of their way’ were two of the top five reasons that would ensure consumers buy into reuse, according to research by Bunzl and Hubbub in 2022³⁰. However, knowing it is better for the environment, earning rewards or discounts and price parity with single-use were all more important.

Counting carbon

The debate over the environmental impacts of single-use versus reusables continues to rumble on. Advocates of reuse and promoters of disposables continue to fire life cycle assessments (LCAs) at one another, which has left consumers confused. Some 54% agreed that a reusable cup used again and again has a lighter carbon footprint than disposable alternatives, however 21% of those we surveyed that would not adopt reusable containers for their takeaways said it was because ‘recycling is more sustainable’. (Safety concerns remain a key barrier too, and companies will be mindful that it will take many more months, or perhaps years, until we really know the impact the pandemic has had on people’s lives, their behaviours and their priorities).

“Much of the focus in recent years has been on recycling and this needs to shift towards educating customers about the role of reuse and the environmental benefits that come with it,” explains Hubbub co-founder Gavin Ellis. There also needs to be progress made on better understanding the LCAs of reusable packaging, he adds.

Much rests on the number of times a piece of packaging is reused. The ‘breakeven point’ signifies the point at which reuse becomes

economically and environmentally more sustainable than single-use³¹. To understand if reuse is working and scalable companies need to ask themselves this question: how often is the packaging being reused? That number must be enough to make it economically viable and to hit that breakeven point.

The material, the application and the data being used for any LCA can all have an impact on that figure. LCAs are also under scrutiny, not only for being misused³² but also for their limitations – a topic to watch closely in the coming months.

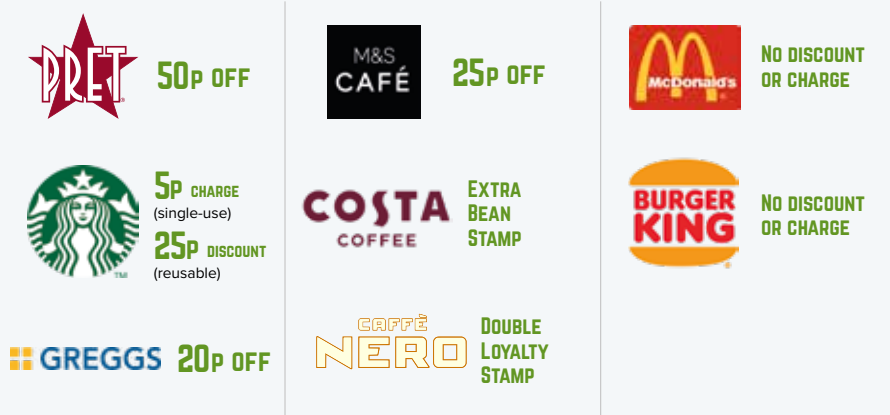
However, there is acknowledgment among an increasing number of brands that reuse generally ‘wins’, and will clearly do so as systems improve and consumers adapt. Some are already digging deeper to determine which systems and materials work best. Some are experimenting with reusables made from bioplastics or recycled plastic content.

Sodexo’s working group on reusable packaging has assessed a range of reusable materials and scored them based on environmental as well as food safety and business metrics in order to produce a preferred list (a little like Tesco³³ and others have done with single-use packaging). Bamboo didn’t make the cut while glass is

Cups, carrots and sticks

Support for charges on single-use coffee cups continues to gather steam. Scotland hopes to introduce one by 2026, with foodservice representatives involved in an advisory group working on the finer details³⁶. Some industry insiders would support such a ‘latte levy’ to level the playing field – provided funds were ploughed back into supporting reuse. For now, most chains offer discounts rather than charges.

Reusable cup incentives



Sources. Company websites, field research (Footprint)

‘tolerated’. Plastic polymers came out well – they are light, durable and microwaveable. “We want to standardise our solutions so these materials can work right across Europe,” explains Mussett. “It has to align with our net-zero trajectory,” he adds.

Charging ahead

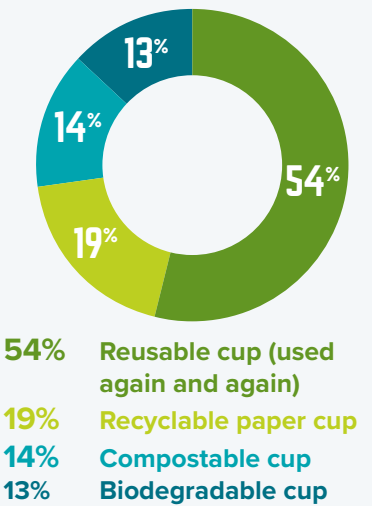
Packaging doesn’t have a big carbon footprint for foodservice brands, accounting for around 5% and 10%

of the total emissions, but it remains highly visible, notes Mark Chapman from the Zero Carbon Forum, and that brings opportunities to engage with consumers³⁴. This could include environmental messaging which has been shown to slightly increase uptake of reusable cups³⁵.

Charges and discounts are also likely to have a role (see *Cups, carrots and sticks*). Most companies offer the latter but Starbucks has kept with its 5p charge for

Some companies are experimenting with reusables made from bioplastics or recycled plastic content.

For a hot drink, which type of packaging has the lowest carbon footprint?



disposable cups. A latte levy is a popular policy among the public and increasingly policymakers. “Evidence shows that a small charge on single-use cups can be hugely effective in encouraging people to switch to a reusable alternative,” says circular economy minister Lorna Slater. Her expert advisory group has recommended an initial minimum price of around 20p per cup with a scheme planned for 2026³⁷.

Some industry insiders say they would actually welcome a latte levy in other parts of the UK and have been telling the government this for some time, provided there

is a level playing field, that is it applies to independent cafés too, and provided the revenue is ring-fenced to support longer-term reuse solutions.

Single-use options are rising in price, and the suite of existing and incoming policies (EPR, DRS, taxes and potentially charges) will see them rise higher. This means the price gap to reuse is shrinking. Companies are counting the carbon but increasingly they are considering the potential cost benefits of reuse too.

“Get the formula right and you have a multimillion-euro disruptive business taking sales away from single-use packaging with upscale refill experiences that are an improvement on the status quo,” wrote Paul Foulkes-Arellano, founder at Circuthon Consulting in a piece

for Packaging Europe recently⁴⁰. One of his favourite examples currently is Foodles, a business in France that offers chef-prepared meals to office workers from digitally-operated smart fridges, all packaged in reusable containers. “The experience is superior to a work canteen,” he wrote.

Counting costs

Reath, which has worked with M&S on its refill in store system, is building a business case tool on reuse funded by Starbucks, which has launched more than 20 trials of reusable and returnable cup programmes around the globe. Data will be used to compare the price of single-use and reusable cups, factoring in everything from plastics taxes and EPR to the up-front costs of reuse and potential loss rates. Technology could play a key role



“The more people that get involved the easier it will be to get over potential teething problems.”

Alvaro Bernabeu, owner, Malvarosa tapas restaurant

in the success of reuse systems in foodservice, says Rampen, helping to “ease the pain. Single-use is easy – you order 1,000 cups and when you run out you order 1,000 more. Reuse isn’t like that. You need to track the packaging, get better at predicting its flow and ensuring you don’t run out.”

Foodservice companies also need to account for packaging being kept or lost. Burger King found that in the first few weeks of its trials with reusable packaging some customers held onto the cups as a souvenir. There is a fine balance to be struck that ensures packaging is practical and attractive – but not so appealing that people want to keep

Carbon and cash counts

Research by the Rethink Plastic Alliance showed scaling up reusable food-and-beverage containers in the foodservice and hospitality sector by 50% by 2030 could save 2.6MtCO₂e and EUR10.4bn (£9.2bn)³⁸. It is clear that reuse systems need to be designed in a way that 1) minimises impacts from key areas such as washing and transportation, 2) guarantees access to reuse systems to all and 3) ensures the interoperability of different schemes and packaging designs, suggests alliance coordinator Delphine Lévi Alvarès³⁹.

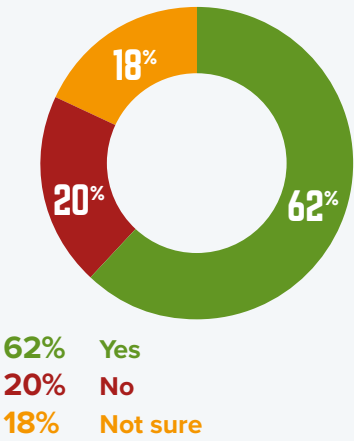
it. Whether high street chains could do away with their branding on reusable packaging is a live topic of conversation (see also *chapter 4*).

That would certainly help to scale such systems – which could provide huge environmental and economic savings (see *Carbon and cash counts*). The EU, in its recent

proposals for new packaging waste regulations, suggested there will “be some standardisation of packaging formats and clear labelling of reusable packaging”. Markings, such as QR codes, will also be necessary in order to provide people with “the relevant information facilitating its reuse”.



Would you be happy using reusable containers for takeaways?



Reuse rules

The narrative around reuse is also changing. Experts note how companies are speaking in terms of not just the carbon savings of reuse but the cost savings too. The European Commission is talking about job creation from reuse. There is certainly a feeling inside the industry that these are exciting times as more companies weigh up the commercial, environmental and reputational pros and cons of reuse in far greater detail than ever before. “The more people that get involved the easier it will be to get over potential teething problems,” says Alvaro Bernabeu, owner of the Malvarosa tapas restaurant near Edinburgh, who has been running

You said you have stopped using reusable cups since covid-19 – why?



Note. Participants could select more than one option.

You said you wouldn't happy using reusable packaging for takeaways – why?



reusable trials for food and drinks with Zero Waste Scotland⁴¹.

There is also acceptance of the fundamental changes to business models that are needed. “Can we really justify offering single-use packaging when people are dining or drinking in?” wonders the sustainability lead at a UK chain.

Regulation could soon force them not to. The EU has proposed a ban on single-use packaging for food and drink filled and consumed on the premises, as well as single-use packaging for individual servings of everything from condiments and creamers to sugars and seasoning. New reusable packaging targets for takeaway food and drink

containers are also planned. Some industry groups have suggested this is all moving too fast but businesses can't afford to be left behind.



CHAPTER 3

Recycling levels prove hard to reach

The strikes among waste collectors in Edinburgh, Scotland, last summer during the height of the annual comedy festival laid bare not only the levels of disposable food- and drink-to-go packaging but the complex mix of materials discarded.

Data on recycling rates for foodservice packaging generally remains hard to come by. A more detailed picture will soon emerge as companies begin collecting and reporting under EPR this year. EPR also includes the need for a mandatory, and binary, recycling label which should help confused consumers and reduce contamination of material streams.

Most people (62%), however, are finding it easy to recycle food-to-go packaging, which is encouraging. For the ones that are finding it most tricky it is the lack of bins causing the most problems (36%). Of the 374 local authorities in the UK only 184 have street recycling bins available, according to Recoup, a charity. Even then there is concern about contamination levels (a recurring theme in previous iterations of this report). People are also struggling because they are unsure about whether packaging is recyclable (29%), don't know what bin to put it in (19%) or are baffled by the label (14%).

Capturing the cup

The very nature of many foodservice business models – food on-the-go – makes capturing packaging for recycling incredibly difficult. Take cups as an example. “Once customers leave the store and place cups in street or office bins they are

likely to be bound for incineration,” explains Richard Cham, packaging projects officer at Recoup.

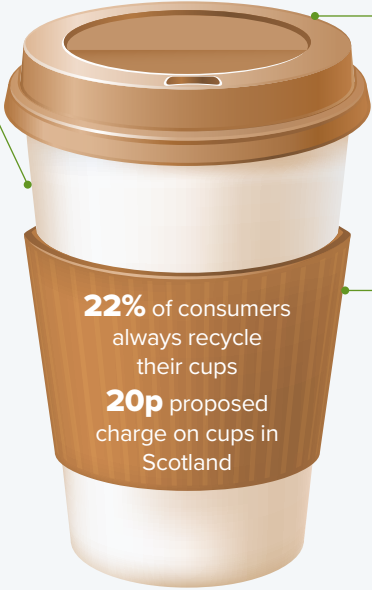
Cups continue to be the high profile packaging problem facing the sector. New Wrap research in 2022 shows some 3.2 billion fibre-composite (plastic-lined) cups were

The 3.2 billion cup question

Attention on foodservice packaging began with coffee cups. Efforts to recycle more of them, reduce their plastic content and incentivise reusable cups continues. “The cup is 20% of our waste footprint globally, but more than that, it is an icon,” Starbucks chief sustainability officer Michael Kabori told CNBC last year. “This is Starbucks’ icon all around the world, and if we can replace this disposable cup, this symbol of waste, with this reusable [version], we completely change people’s mindset.” Industry-led initiatives have done little to increase recycling rates or uptake of reuse making mandatory charges all the more likely on this iconic piece of packaging.

Fibre-composite cups

- 3.2bn / 35,300 tonnes – placed on the market
- Made from ... 91% paper + 9% PE or non-PE plastic lining
- 61,000 tonnes – recycling capacity for cups
- 6,300 collection points
- 89m (2.8%) recycled



Cup lids

- 2.9 billion
- Made from ... PET (2%) and PS (98%)
- ~0% recycled
- Costa fibre-based lids = 50% lower CO2e than PS

Cup sleeves

- 0.2 billion
- 2.8 % recycled

Sources: Wrap/Valpak²⁴, Costa⁵³, National Cup Recycling Scheme, Defra, Scottish Government

“Once customers place cups in street or office bins they’re likely to be bound for incineration.”

Richard Cham, packaging projects officer, Recoup

placed on the market in 2019⁴². This equates to 35,300 tonnes of waste, with just 2.8% recycled. There is reportedly enough recycling capacity to take all of these cups but they need to be segregated to ensure effective and efficient recycling.

Costa has managed to recycle 165 million cups since its scheme began in 2018. The target however was 500 million by 2020⁴³. Industry insiders suggest their efforts, which have seen 6,300 collection points introduced across the UK, still suffer from a “visibility challenge”. Customers also need an incentive to recycle the cups (some brands have looked into discounts or rewards). Contamination levels remain high, and so too does the cost of collection.

Lowly recycling rates have clearly given policymakers pause for thought. The UK government wants to introduce a mandatory takeback scheme for fibre-based single-use cups in 2024 (2025 for micro-companies) under EPR. In Scotland, plans are afoot for a latte levy to encourage people to switch to reusable cups⁴⁴. “The solution has to be reuse,” says an expert from one high street chain.

Protecting PET

While paper cups can be tricky to recycle due to their plastic liner,

there are also 1 billion polystyrene (PS), expanded polystyrene (EPS), polypropylene (PP) and polyethylene terephthalate (PET) cups used in the UK every year, according to Valpak. Only 2% to 4% are recycled. Most of the cups are PS (42%) and EPS (25%) which are not widely recycled and increasingly subject to market restrictions. The 260 million PP and 70 million PET cups could be recycled – and there is no constraint on capacity.

For recyclers, PET continues to be the most popular polymer. Almost 64% of the 641,000 tonnes of plastic bottles placed on the UK market in 2021 were recycled, for example. More and more bottles, both PET and HDPE (high density polyethylene), also come with higher and higher levels of recycled content (though exact figures for the UK are hard to come by).

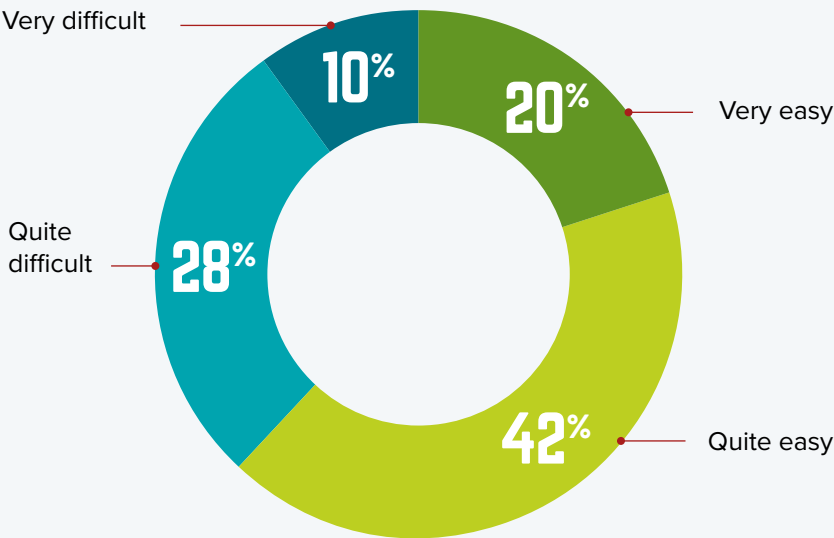
Across members of the UK plastics pact 205,000 tonnes of recycled content was placed into primary packaging, with around 75% of this (151,000 tonnes) being PET and 106,000 tonnes of that in bottles. The plastics tax, which requires plastic packaging to have at least 30% recycled content, EPR and a deposit return scheme (DRS) are all expected to drive higher levels of recycled content. MPs

on the Efra committee have also called for a ban on all exports of UK plastic waste by the end of 2027.

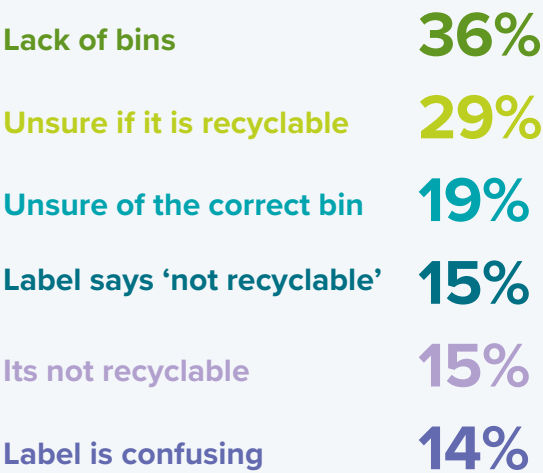
There are challenges ahead, however. With demand outstripping supply some recycled plastics are costlier than virgin ones (even after the tax has been applied). Drinks producers have accused the fashion and automotive sectors of disrupting the circular economy by taking recycled plastics without contributing to the ‘loop’. The EU beverage industry, along with NGOs like Zero Waste Europe, have argued that this represents ‘downcycling’ with valuable PET used for lower grade applications like T-shirts and car seats which will likely end up in landfill⁴⁵. They are demanding priority access to rPET from bottles.

DRS – though still the subject of huge debate as the devolved UK nations look at distinct schemes and timescales – should produce a segregated stream of clean source-separated PET which will be used to make new bottles. This can bring other issues, however. Those using rPET for pots, tubs and trays for example could struggle for supplies. Use of rPET in pots, tubs and trays has waned in the past two years, according to Wrap. Dedicated tray-to-tray recycling is “vital”, the charity says.

Is it easy to recycle on-the-go food and drink packaging?



Why is it hard to recycle on-the-go?



Note. Participants could select more than one option.

Horror films

Integrating recycled content into packaging for food is also far from straightforward. There are strict rules governing so-called food contact materials and these have proved particularly difficult to surmount for polymers like PP and PE. Foodservice companies rely heavily on PP – Starbucks’ plastic portfolio is 57% PP, for example, while at McDonald’s it’s 61%⁴⁶. These chains only currently use a tiny fraction of recycled plastic content.

Technology will help. A range of emerging technologies are being trialled, like embedding smart codes and material identification markers to enable material to be kept within the food grade classification. Much is also expected of chemical recycling, especially when it comes to integrating recycled flexible plastic into packaging for foods, but progress has been slower than expected and supermarket collection schemes have been criticised⁴⁷.

Come 2027, councils will have to collect plastic films from households. This will require considerable changes to recycling plants which are already struggling with a complex mix of plastic polymers, as well as fibre-based

Companies must weigh up consumer acceptance, product safety, unintended environmental consequences, labelling, logistics, sourcing and price.

packaging and novel materials. They want simplicity. Present packaging sold as ‘widely recycled’ to a waste contractor and they may give you a very different answer, suggests Mussett at Sodexo.

Sandwich wrappers, insulated food delivery packaging, coffee bags and soft drink cups from fast food outlets are also clogging up paper mills, according to research by packaging firm DS Smith⁴⁸. Food trays, food cartons and wrappers tend to have top quality fibre but the addition of a plastic layer makes them “difficult to break down” in the mills. Soft drinks cups are sometimes double-laminated. If all food trays were made of one material, like HDPE, for example, or if plastic bottles were all clear it would make a “massive difference” both in terms of the economics of the business and the environmental impact of packaging, according to Richard Hinchcliffe, regional manager at Suez Recycling and Recovery UK.

Companies have begun to recognise this with moves to reduce the number of plastic polymers they use and improve collaboration from design through end-of-life and back to ‘new’ recycled materials. Co-op, Pilgrims UK and Klöckner Pentaplast, together with Recoup, have been working to change meat

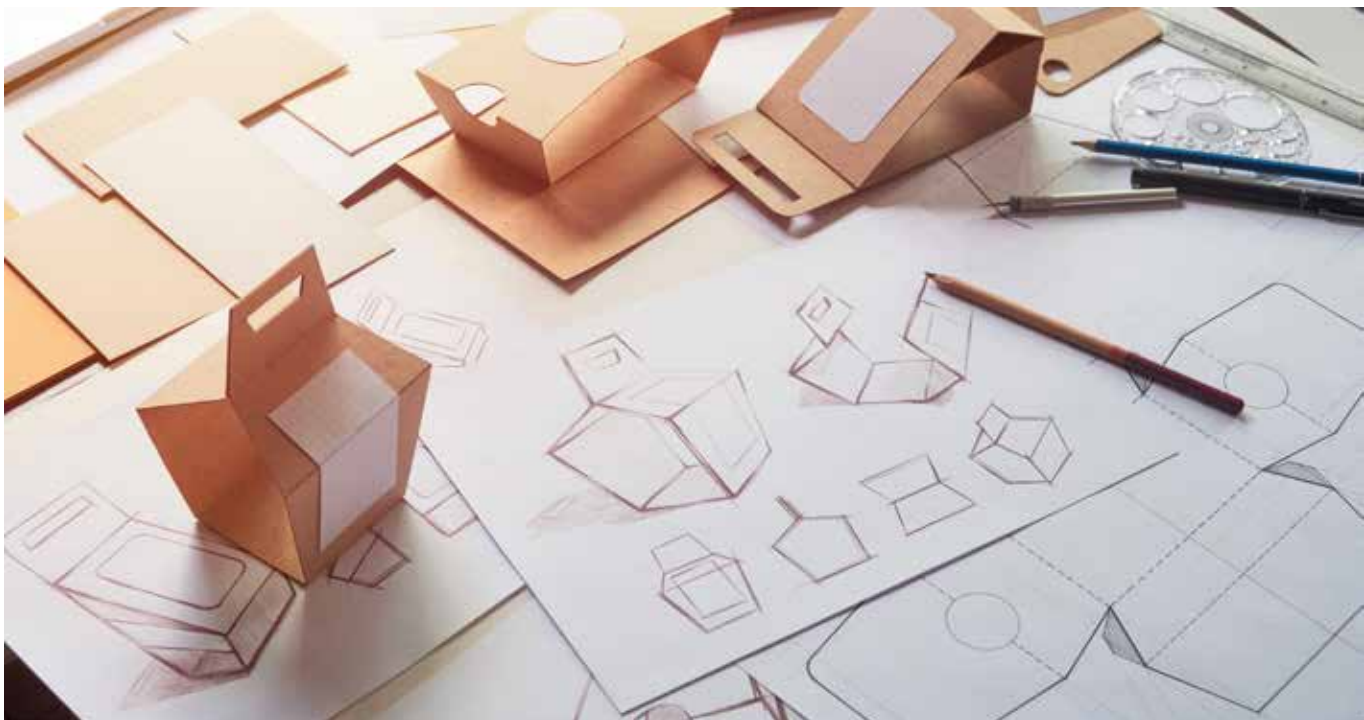
packaging to a mono-PET format, removing the PE sealing layer, for example⁴⁹. Moves by drinks brands to tether the caps to their bottles have also been welcomed. Plenty of low-hanging fruit remains, say experts.

Novel ideas

Some of these changes may sound simple, but it’s rarely the case. Companies have to weigh up factors including consumer acceptance,

product safety, unintended environmental consequences, labelling, logistics, sourcing and price, among many others. Easy wins can often be hard to do, companies say, and the costs of going beyond regulation can be hard to justify currently.

Higher prices for single-use packaging are coming through EPR but companies remain in the dark on the precise implications (some



factored costs into their financial planning but the modulated fees are yet to be determined and the policy has been delayed).

Where recyclability is a problem and recycled content is either hard to source or almost impossible to use, brands are increasingly looking to plastic alternatives. Starbucks and McDonald’s are both using more “responsibly sourced bio-based content”. Pizza Express, meanwhile, has introduced bagasse bases for some of its pizza deliveries.

Deliveroo is providing £2.5m to subsidise purchases on all “environmentally friendly” packaging

items that restaurants buy from its store⁵⁰. Recycled plastic or fibre packaging is included, as is home compostable. The latter has been in the spotlight after a UK-wide experiment run by UCL to test whether such packaging does indeed break down found that only a third of items fully composted⁵¹. New certification standards are needed, the researchers said.

Many other brands continue to adopt fibre-based packaging in light of the challenges involved in recycling some plastics, and indeed the continued anti-plastic narrative from the public and policymakers.

McDonald’s has just switched 286 million McFlurry spoons from plastic to paper, for example. Others have made controversial moves from recyclable plastic polymers, like HDPE, to cartons for milk leading to accusations of greenwash and criticism from recyclers⁵².

The hunt for new packaging materials and the scrutiny of them and any changes brands make continues. As it should. Determining which are the most ‘sustainable’ single-use options will be one of the key challenges facing brands this year as they await decisions on the fee structure for EPR.

CHAPTER 4

A look ahead

To conclude, here are five of the key topics and trends in packaging that foodservice businesses should be aware of in the coming year.

1. Regulation, regulation, regulation

It's a big year for regulation on packaging. England has announced bans on single-use items like cutlery and polystyrene cups, following in the footsteps of Scotland and, come autumn, Wales. More details on EPR are desperately overdue, while the ins and outs (and divergence) of DRS schemes will be hotly debated again. However, regulators are also looking beyond recycling and up the waste hierarchy at policies to encourage reuse and drive reduction, both of which offer considerable carbon benefits. Brands with net-zero aspirations will be watching closely as their packaging policies are measured through a carbon intensity lens. Companies should also be closely tracking the talks to deliver a global plastics treaty and whether the focus is on recycling or there are caps on plastic production and consumption.

2. Coming clean on plastic

Data on plastic drives change, according to WWF, which has been working with McDonald's and Starbucks to encourage more

Why carbon counts

Heura Foods, a Spain-based manufacturer of plant-based meats, is one of those to have switched back to plastics on the basis of a life cycle assessment (LCA) of its packaging. The food company's previous packaging was made up of an 87% recycled cardboard tray and plastic coating but it has now decided a 92% recycled PET tray and plastic lid is better. Details of the LCA results from Spain, France, Italy and the UK were released showing that the rPET tray had between a 23% and 47% lower carbon footprint than the cardboard one. Co-founder Bernat Añaños says the company will continue to make "data-driven decisions" on sustainability but suggests there is not a clear path. Indeed, Costa has switched to fibre-based lids that have "up to 50% lower carbon footprint" than the current polystyrene ones.

IGD, which provides insights to the grocery sector, has published a best practice guide to help the sector undertake packaging LCAs in a standardised way. "I think quite rightly they are focusing on some of the bigger wins, like their ingredients, but they're going to need every little bit of carbon savings," says Amanda Curtis who led the work.



transparency⁵⁴. The latest update, published in December, showed the "significant impact" that companies can have when they work to make changes within their own portfolios, but also "prove the need for larger systemic change". Expect more businesses to follow suit and more data to come to light. CDP is for example expanding its global environmental disclosure

system to include various questions and metrics relating to plastic⁵⁵. The Ellen MacArthur Foundation, which has raised the bar in relation to voluntary disclosures on plastic footprints, is also involved in the project which will hopefully see more businesses better understand their responsibilities and risks related to the plastic crisis. Investors, consumers and employees all want

“Single-use is so convenient and it’s almost impossible to match that with reuse. But we have to – and to do that reuse needs to be pre-competitive.”

Senior sustainability expert, high street coffee chain



businesses to come clean on their use of plastic but who will be brave enough to publish their entire packaging footprint?

3. Reuse – the pre-competitive collaboration race is on

“Single-use is so convenient and it’s almost impossible to match that with reuse,” explains a senior sustainability expert at a high street coffee chain. “But we have to and to do that reuse needs to be pre-competitive.” High street chains and contract caterers are implementing an ever-widening array of reusable packaging trials, covering both cups

and containers. Understanding of the consumer barriers to uptake is improving but much also rests on the ability of highly competitive brands to collaborate. Scaling one reuse and return model across multiple companies, both large and small, requires them to step away from their brands and use standardised and unbranded packaging. It’s an almost impossible concept for marketing teams to grasp but it’s one that sustainability leaders have already started to push.

4. Making sense of sustainable solutions

Companies are grappling with

which single-use materials make the most sense. Consumers often want one thing but the science suggests another. It’s no wonder many are left in a muddle. As research published in the journal *Resources, Conservation and Recycling* in June 2022 noted: “[...] if neither theorists, nor companies, nor government agree on the sustainability of different types of packaging – how are consumers supposed to make correct assessments?”⁵⁶. Companies will increasingly rely on life cycle assessments to guide their decisions on packaging as they work on their carbon reduction plans. And sometimes plastic will win.

Communicating this won’t be easy – packaging made with recycled plastic tends to lag behind paper, biodegradable and compostable in consumer perceptions – but it’ll be crucial. “Packaging is [often] the first touch point with consumers,” explains Laura Peano, global plastics lead at sustainability consultancy Quantis. “It really provides the first image of the brand to the consumer.”

5. Paper – cutting through the claims

Paper packaging has benefitted from the anti-plastic narrative but the presence of a plastic layer continues to create problems for

recyclers. Wrap research shows 3.2 billion items of fibre-composite food packaging were used in 2019 but there was “no treatment or recycling infrastructure in place” for them⁵⁷. Cups present a similar headache, with efforts to segregate them struggling to scale. Moves by some drinks brands to introduce plastic-lined paper bottles in place of glass or plastic have also been questioned by recycling companies⁵⁸. The January deadline to reduce the level of laminate allowed from 15% of packaging weight to 10% by the On-Pack Recycling Label has been delayed for paper and lightweight card packaging under 120gsm. Paper mills ideally want just 5%. So

expect paper to come under scrutiny this year: NGOs are interrogating the use of PFAs, or forever chemicals, to improve water resistance in paper, card and compostables, as well as the environmental impact of producing paper packaging^{59,60}. Companies who are making the necessary shift from plastic but are choosing to replace that with paper packaging are “trading one environmental disaster for another”, warned Canopy, the forest conservation network, recently⁶¹. How to use recycled content in paper packaging will increasingly be under consideration. As one expert noted, fibre’s “free ride” to date could be coming to an end.



References

1. <https://www.foodservicefootprint.com/footprints-five-things-to-know-disposable-cups/>
2. <https://www.foodservicefootprint.com/new-eu-packaging-rules-set-to-shake-up-single-use/>
3. <https://www.foodservicefootprint.com/comment-plastic-bans-barely-scratch-the-surface/>
4. <https://www.foodservicefootprint.com/plastics-package-can-england-ketchup-on-packaging-bans/>
5. <https://www.gov.uk/guidance/how-to-collect-your-packaging-data-for-extended-producer-responsibility>
6. <https://committees.parliament.uk/event/15633>
7. <https://www.packagingnews.co.uk/news/environment/legislation/sustainability-legislation-primary-challenge-for-senior-packaging-professionals-29-11-2022>
8. <https://wrap.org.uk/sites/default/files/2022-11/The%20UK%20Plastics%20Pact%20Annual%20Report%202021-22.pdf>
9. <https://www.just-food.com/comment/brands-efforts-on-plastic-packaging-prove-a-load-of-rubbish/>
10. <https://www.just-drinks.com/analysis/is-paper-really-a-sustainable-alternative-for-drinks-companies/>
11. https://ec.europa.eu/environment/green-growth/waste-prevention-and-management/index_en.htm
12. <https://www.gov.uk/government/publications/25-year-environment-plan>
13. <https://www.foodservicefootprint.com/plastics-package-can-england-ketchup-on-packaging-bans/>
14. <https://consult.defra.gov.uk/environmental-quality/consultation-on-proposals-to-ban-commonly-littered/>
15. <https://www.foodservicefootprint.com/calls-for-temporary-break-in-green-taxes/>
16. <https://www.thegrocer.co.uk/suppliers-drinks/producer-fees-slashed-by-40-for-uks-first-deposit-return-scheme/674541.article>
17. <https://www.zerowastescotland.org.uk/single-use-plastics-regulations/faqs>
18. <https://www.ipsos.com/en-uk/attitudes-towards-single-use-plastics>
19. https://globescan.wpenginepowered.com/wp-content/uploads/2022/11/GlobeScan_Healthy_and_Sustainable_Living_Highlights_Report_2022.pdf
20. https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_7158
21. <https://www.foodpackagingforum.org/news/novelties-of-bioplastics-ecs-policy-framework-and-industry-updates>
22. <https://www.foodservicefootprint.com/foodservice-packaging-the-pandemic-changing-perceptions-and-future-progress-in-association-with-kp/>
23. <https://wrap.org.uk/resources/report/uk-plastics-pact-annual-report-2021-22>
24. <https://wrap.org.uk/resources/report/single-use-cups-and-go-fibre-composite-food-packaging>
25. <https://publications.parliament.uk/pa/cm5803/cmselect/cmenvfru/22/report.html>
26. <https://wrap.org.uk/resources/report/uk-plastics-pact-annual-report-2021-22>
27. <https://www.just-food.com/comment/brands-efforts-on-plastic-packaging-prove-a-load-of-rubbish/>
28. https://just-food.nridigital.com/just_food_oct22/food_industry_reusable_packaging
29. <https://www.foodservicefootprint.com/tesco-reflects-on-reusable-packaging-lessons/>
30. <https://tinyurl.com/2edwen4e>
31. <https://zerowastescotland.org.uk/content/environmental-benefits-reusable-plastic>

32. <https://theconversation.com/how-life-cycle-assessments-can-be-mis-used-to-justify-more-single-use-plastic-packaging-147672>
33. <https://www.tescopl.com/media/758424/uk-preferred-materials-formats-guidelines-2022.pdf>
34. <https://www.foodservicefootprint.com/marketers-are-struggling-to-communicate-on-climate/>
35. <https://www.mdpi.com/2071-1050/10/3/873>
36. <https://www.gov.scot/groups/single-use-disposable-cups-charge-advisory-group/>
37. <https://www.gov.scot/publications/report-expert-panel-environmental-charging-measures-epecom-recommendations-single-use-disposable-beverage-cups-july-2019/pages/4/>
38. <https://rethinkplasticalliance.eu/wp-content/uploads/2021/07/Realising-Reuse-Final-report-July-2021.pdf>
39. <https://www.euractiv.com/section/energy-environment/opinion/europe-must-set-the-bar-high-on-packaging-reuse-systems-to-curb-waste/>
40. <https://packagingeurope.com/comment/could-wash-and-refill-decimate-the-production-of-new-packaging/8991.article>
41. <https://www.facebook.com/zerowastescotland/videos/957633071590992>
42. <https://wrap.org.uk/resources/report/single-use-cups-and-go-fibre-composite-food-packaging>
43. <https://www.foodservicefootprint.com/footprints-five-things-to-know-disposable-cups/>
44. <https://www.letsrecycle.com/news/scotland-re-introduces-plans-for-25p-cup-charge/>
45. <https://zerowasteurope.eu/library/how-circular-is-pet/>
46. <https://www.worldwildlife.org/publications/transparent-2022-annual-resource-plastic-progress-report>
47. <https://wickedleeks.riverford.co.uk/features/where-do-supermarket-plastic-collections-really-go/>
48. <https://www.foodservicefootprint.com/foodservice-packaging-creating-problems-at-paper-mills/>
49. <https://www.recoup.org/download/1039/recyclability-by-design-case-study-bacon-and-meat-packaging-sep-2022>
50. <https://packagingeurope.com/news/deliveroo-offers-subsidies-to-restaurant-partners-buying-environmentally-friendly-packaging-items/9013.article>
51. <https://www.newscientist.com/article/2345545-most-home-compostable-plastic-doesnt-break-down-in-garden-bins/>
52. <https://www.letsrecycle.com/news/morrisons-doubles-down-on-switch-to-tetra-pak-milk-cartons/>
53. <https://www.costa.co.uk/sustainability/cups-and-packaging>
54. <https://www.worldwildlife.org/publications/transparent-2022-annual-resource-plastic-progress-report>
55. <https://www.cdp.net/en/plastics>
56. <https://www.sciencedirect.com/science/article/pii/S0921344922000672>
57. <https://wrap.org.uk/resources/report/single-use-cups-and-go-fibre-composite-food-packaging>
58. <https://www.foodservicefootprint.com/paper-bottles-promising-or-pr-puff/>
59. <https://www.foodservicefootprint.com/comment-pushing-back-on-paper-packaging/>
60. <https://green-alliance.org.uk/publication/fixing-the-system/>
61. <https://www.just-drinks.com/analysis/is-paper-really-a-sustainable-alternative-for-drinks-companies/>
62. <https://zerowastescotland.org.uk/content/ditching-disposables-can-have-big-impact-reducing-single-use-waste>

About this research

Footprint Intelligence

Footprint Intelligence was commissioned by Klöckner Pentaplast (kp) to write this report. The research comprised in depth, semi-structured interviews with foodservice experts, desk-based research, involvement in industry events and forums, and comments and insights gathered from other opinion leaders linked to the industry. Footprint Intelligence is hugely indebted to the industry experts who generously gave their time and insights as part of the research process.



Vypr is the world’s leading product intelligence platform that enables businesses to rapidly understand changing consumer behaviour through fast cost-effective consumer insight.

Used by all stakeholders and teams that contribute to every aspect of the product journey, our platform combines expert support with the latest research technologies, to power faster and more precise product decision-making.

We deliver some of the fastest, most robust insight available through a mix of qualitative and quantitative functionality, facilitated through our mobile-first consumer communities.

Contributors

Writing/research: David Burrows
Editing: Nick Hughes
Design: Trevor Marshall

Acknowledgements

We would like to thank the following for their time, insights and knowledge which were so essential in creating this report: the Bio-based and Biodegradable Industries Association, Bunzl Catering Supplies, Burger King, ClubZero, Hubbub, Reath, Recoup, Sodexo, the Scotch Whisky Association, Wrap, Zero Waste Scotland.



FOOTPRINT INTELLIGENCE

