



environmental  
investigation  
agency

**GREENPEACE**

## Checking Out on Plastics III

January 2021



## ACKNOWLEDGEMENTS

With support from John Ellerman Foundation.

*"We aim to advance the wellbeing of people, society and the natural world by focusing on the arts, environment and social action. We believe these areas can make an important contribution to wellbeing."*

**John Ellerman  
Foundation**

## ABOUT EIA

We investigate and campaign against environmental crime and abuse.

Our undercover investigations expose transnational wildlife crime, with a focus on elephants and tigers, and forest crimes such as illegal logging and deforestation for cash crops like palm oil. We work to safeguard global marine ecosystems by addressing the threats posed by plastic pollution, bycatch and commercial exploitation of whales, dolphins and porpoises. Finally, we reduce the impact of climate change by campaigning to eliminate powerful refrigerant greenhouse gases, exposing related illicit trade and improving energy efficiency in the cooling sector.

## ABOUT GREENPEACE

Greenpeace defends the natural world and promotes peace by investigating, exposing and confronting environmental abuse and championing responsible solutions for our fragile environment.

## EIA UK

62-63 Upper Street,  
London N1 0NY UK  
**T:** +44 (0) 20 7354 7960  
**E:** [ukinfo@eia-international.org](mailto:ukinfo@eia-international.org)  
**[eia-international.org](http://eia-international.org)**

### Environmental Investigation Agency UK

UK Charity Number: 1182208  
Company Number: 07752350  
Registered in England and Wales

## CONTENTS

Executive Summary	4
Introduction	6
Background	7
Methodology	8
Summary of results	10
Targets	12
The plastic packaging footprint	13
Own-brand versus branded reductions	14
Overall trends in this year's survey	16
Retailer snapshot: highlights and lowlights	18
Plastic bags	20
Single-use items	24
Fruit and vegetables	28
Reuse and refill	30
Recycling and recycled content	32
Online	33
Convenience retailers	34
Conclusions	35
Recommendations	36
Glossary	38
References	39



**Above:** Plastic pollution is present on land and in oceans around the world, with coastal communities often bearing the brunt of clean-up efforts



**Above:** Up to 13 million tonnes of plastic enters our ocean every year, harming marine wildlife, habitats and biodiversity

## Executive summary

### Key findings in this report:

- During 2019, the 10 major supermarkets in the UK put 896,853 tonnes of plastic packaging on the market. While this is a reduction of 1.6% over the previous year, it is a 1.2% increase compared to 2017 when the 10 put 886,021 tonnes of plastic packaging on the market.
- Eight of the 10 retailers reduced their plastic packaging footprint from 2018-19, with more than half of the reductions by weight coming from Asda.
- 10 UK supermarkets were ranked in terms of their efforts to reduce plastic pollution. The scorecard shows Waitrose at the top for the second consecutive year, with Iceland in tenth place. Of the five largest UK supermarkets by market share, Aldi ranked first, followed by Sainsbury's, Tesco, Asda and Morrisons.
- In 2019, 2.1 billion plastic carrier bags and 'bags for life' were issued by the top 10 supermarkets, an 8% decrease on the number issued in 2018.
- The number of plastic 'bags for life' (the heavier duty reusable option to the thinner single-use carrier bags) issued by the supermarkets increased from 2018-19. More than 1.58 billion were issued in 2019, a 4.5% increase compared to 2018. This represents almost 57 bags per UK household during the year.
- The number of single-use plastic carrier bags issued is decreasing year on year (by 33% from 2018-19), with several supermarkets banning them altogether.
- 2.5 billion plastic water bottles were sold or given away in UK supermarkets in 2019.
- Supermarket targets and reduction efforts are primarily focused on own-brand plastic packaging, with the result that the amount of packaging used for branded goods is not reducing.

- Sainsbury's and Aldi have market-leading targets to cut plastic packaging from brand and own-brand goods by 50% by 2025. EIA and Greenpeace are calling on other supermarkets to follow suit and also define the 'how' of plastic reduction by ensuring their strategies include targets for the proportion of reduction that will be achieved by switching to reuse systems. We recommend that as part of reduction efforts to at least halve plastic packaging, 25% of packaging should be reusable by 2025, with 50% reusable by 2030.
- Trials in reuse systems are picking up pace, but these need to be rolled out nationally to have impact. Reuse trials are ongoing at each end of the market, including the higher end retailers and discounters. Good examples are Waitrose with its *Unpacked* store trials and Asda testing the landscape for price parity on value products in its Middleton store before a potential wider roll-out.
- Growth in online shopping should be seen as a major opportunity for reuse systems, for example by doorstep delivery of reusable containers which can be picked up, washed and refilled before being sent out again. This business case can be seen in the work by Tesco and its partnership with Loop.
- Transparency and accuracy supported by Government-mandated reporting for companies is urgently needed for retailers and brands. There are ongoing challenges with consistency in data, particularly the data coming from brands.
- While recognising the frontline role supermarkets are playing during the coronavirus pandemic, the sector must seize all opportunities to build back better and invest in sustainability and zero waste systems.

# Introduction

For the third year, the Environmental Investigation Agency (EIA) and Greenpeace UK have surveyed the major supermarkets and grocery retailers in the UK on their efforts to reduce plastic pollution.

In 2018, our survey established a baseline of commitments made by the sector and the 2017 state-of-play for plastic use in stores and supply chains based on the data provided by the retailers. In 2019, we measured progress made and found that, despite the stated aims of many companies, the total volume of plastic packaging had gone up in 2018, not down.

This third report analyses 2019 plastic use across the sector, with a view to understanding whether the companies were able to change course and make a tangible difference in reducing their plastic footprint.

Below: A typical scene in a UK supermarket with shelves lined with plastic packaging



Above left, right: Plastic pollutes throughout its entire lifecycle from production through to disposal. With limited domestic recycling infrastructure, landfill, waste exports and incineration prop up an unsustainable plastic packaging system

## Background

Despite the huge public and policy attention to the plastic pollution crisis, business is booming for the plastics industry and the impacts of plastic pollution are evermore apparent.

Up to 13 million tonnes of plastics leak into our oceans annually,<sup>1</sup> severely harming biodiversity, destroying habitats and fostering a global plastic pollution crisis. This crisis is being driven by massive investment in new plastic production facilities and the continued production of single-use and unnecessary plastic packaging and products for a throwaway society.<sup>2</sup> About 40% of plastic waste generated ends up in the environment<sup>3</sup> and of the 8.3bn tonnes of virgin plastic produced worldwide, only 9% has been recycled.<sup>4</sup> At the same time, the global plastics industry is on track to use 19% of the 1.5°C carbon budget by 2040, fuelling the climate change crisis.<sup>5</sup>

Recent research has shown the UK as one of the major global polluters; an estimated 99kg of plastic waste is generated per person each year.<sup>6</sup> This unsustainable consumption perpetuates waste-dumping in developing countries, unsustainable landfill practices and climate-wrecking plastic waste incineration.

Recent modelling of our plastic system predicted that if we continue on this business-as-usual trajectory, annual flows of plastic into the ocean could nearly triple by 2040. Even if all current major industry and government commitments are met, the world would see a reduction in annual rates of plastic pollution flowing into the ocean of only 7% from the business-as-usual scenario.<sup>7</sup>

Supermarkets play a pivotal role in consumer consumption of plastic, with the influence and buying power to set the pace of change, for example through packaging innovation, improved product design, delivery systems based on reuse models and shorter, more sustainable supply chains.

Supermarkets in the UK have responded to the plastic pollution crisis in a number of ways. All top 10 UK supermarkets have targets to reduce their plastic packaging footprint; however, several are limited to own-brand goods and there are few specific targets for reusable packaging. With bags and food wrappers being among the most common items found polluting the oceans and entangling animals,<sup>8</sup> plastic-free and reusable packaging solutions are urgently required to prevent these problems at source.

The environmental cost and the evidence base for impacts of plastic pollution on human health make it clear that action is urgently needed. There is also a clear business case for transitioning to a circular economy in which material value is recaptured rather than lost. According to the Ellen MacArthur Foundation, replacing just 20% of single-use packaging with reusable alternatives offers an opportunity worth at least \$10 billion in areas such as user experiences, cost savings and brand loyalty.<sup>9</sup>



**Above:** A common sight in UK supermarkets: row after row of fruit and vegetables wrapped in single-use plastic packaging

## Methodology

In 2020, our survey was sent to the top 10 supermarkets in the UK, in addition to online grocery retailer Ocado and convenience grocery retailers including McColl's, Spar and Costcutter.

The survey was based on the same categories as in 2018 and 2019 in order to track progress over this period, with minor refinements to questions to improve quality of information.

The survey contained 37 questions aimed at understanding the performance of retailers according to the following categories for calendar year 2019:

- **Reduction in plastic footprint and use of reusables** - progress made since the last survey to reduce single-use items and packaging and expand packaging-free and reusable ranges, assessed where relevant against targets and milestones reported in the 2018 and 2019 surveys;
- **Forward-looking commitments on reduction and reuse** - level of ambition regarding future reduction and reuse commitments and targets;
- **Recyclability and recycled content** - targets, commitments and progress made on removing non-recyclable plastics and increasing recycled content levels;
- **Supply chain and stakeholder engagement** - engagement with suppliers (including branded

suppliers, agricultural and fisheries suppliers and regarding pre-production plastic pellets), interactions with staff and customers about reducing plastic use and public policy positions on Government proposals such as Deposit Return Schemes (DRS), Extended Producer Responsibility (EPR) and the plastic tax;

- **Transparency** - provision of full data regarding plastic items and packaging, as well as information on recyclability and recycled content and public policy positions.

The areas were assessed independently of each other, with a range of points available for each question on a -5 to +10 scale based on objective criteria. For each category, the company received a percentage score relative to the maximum number of points available. The maximum points were adjusted according to the type of operation so, for example, a company which does not offer online shopping would have those criteria removed from the maximum number of points available so as not to unfairly impact its score. As in previous years, independent analysts were consulted on the methodology and each supermarket's individual scoring.

The categories were weighted, placing greater emphasis on progress in areas that will make the biggest difference

in eliminating plastic pollution. We were particularly hoping to see companies demonstrating reductions in the quantities of plastic packaging on the shelves, as well as commitments for further reductions and shifting to reuse systems to ensure the long-term sustainable system change required.

Although convenience chains responded, they were not included in the final league table or analysis presented here, given the limited comparable data provided. Likewise, Ocado responded to the survey for the first time although the data provided is not included in the league table due to the lack of previous data to compare its progress against.

For the purposes of ensuring the most accurate interpretation of responses from the companies, we encouraged respondents to be as transparent as possible, to ask questions and attend meetings to clarify data, including providing justifications and explanations of responses. The supermarkets were evaluated based on the data provided to us as part of the survey or previous surveys and via follow-up clarifications. There are a number of difficulties inherent in comparing different retailers with different market shares and representation, formats and pricing. EIA and Greenpeace recognise the potential bias in sales-based value data, given that discounters are likely to sell more items (and therefore packaging) than other companies per percent market share. On the other hand, in looking at progress over the last three years, some supermarkets are increasing market share while others are decreasing market share, and this has an impact on their plastic use. Therefore some data points were considered in the context of market share of each company, based on data provided by Nielsen Retail Measurement Services (see Table 1).<sup>10</sup>

**Table 1:** Market share of 10 UK supermarkets. Source: Nielsen Homescan

Retailer	Market Share		
	2017	2018	2019
Aldi	8.5%	9.2%	10.0%
Asda	13.1%	13.1%	12.8%
Co-op	5.2%	5.2%	5.2%
Iceland	2.5%	2.5%	2.5%
Lidl	5.2%	5.5%	6.0%
M&S	3.7%	3.6%	3.5%
Morrisons	10.3%	10.1%	9.8%
Sainsbury's	14.8%	14.5%	14.1%
Tesco	28.0%	27.7%	27.0%
Waitrose	4.5%	4.4%	4.3%
<b>TOTAL</b>	<b>95.8%</b>	<b>95.8%</b>	<b>95.2%</b>

# Summary of results

For the second consecutive year, Waitrose is at the top of the league table.

Waitrose was able to achieve a reduction in plastic use across both its own-brand and branded ranges, supplemented by robust engagement with its branded suppliers. Waitrose reported an absolute plastic reduction of 6.1% since 2017 and has the lowest plastic use per unit market share of all 10 retailers. Its efforts to reduce plastic are coupled with a commitment to expand reuse and unpackaged ranges and concerted efforts to remove single-use plastic products from its stores and cafes.

At the bottom this year is Iceland, despite achieving an absolute own-brand plastics reduction of 29% since 2017. Increases in plastic from branded goods offset a substantial amount of this progress, reducing its overall reduction achievement to 2.7% or 3% on a market share basis. In 2019, Iceland also had the highest plastic use per unit of market share of all 10 retailers. Iceland also reported an additional 73 million 'bags for life' sold in 2019 compared to 2018, which far exceeded the decrease in sales of single-use carrier bags of 5.6 million. Areas such as the proportion of fruit and vegetables sold loose (2.7%) as well as low scores in transparency and commitments on reuse and refill also played a role in this ranking.

The biggest mover from the previous survey is Aldi, which went from bottom to second place this year. Aldi demonstrated a 2.4% plastic reduction per unit of market share between 2018 and 2019. Other areas where Aldi scored well included its elimination of single-use carrier bags and reductions in ultra-light produce bags and 'bags for life'. These reductions sit alongside an increased level of ambition for the future with a pledge to cut plastic use in half by 2025 and a high degree of transparency in the information they provided.

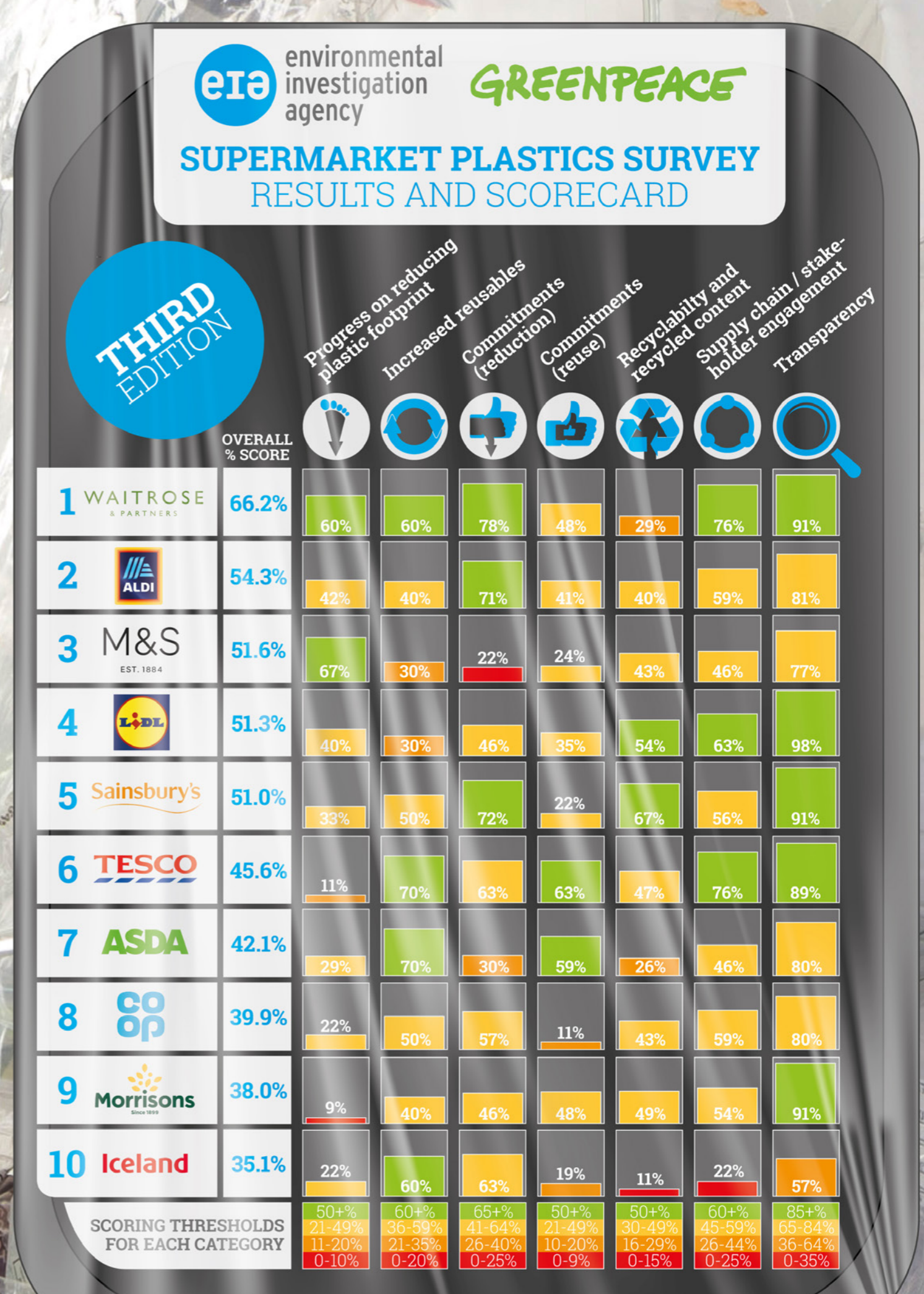
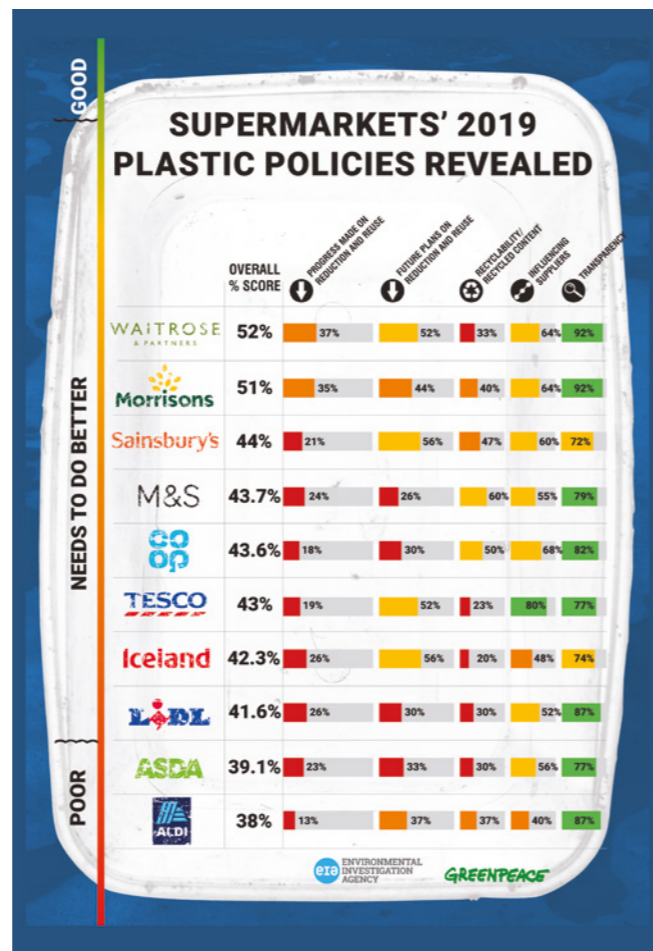
Other climbers this year included Lidl, which achieved an absolute own-brand plastic reduction of 2.6% of plastic across the business since 2017, despite company growth, and a corresponding reduction of 15.6% per unit of market share.

Morrisons moved significantly in the other direction, from second place to ninth this year. Its plastic use increased since 2017 both in absolute terms and per market share. Significant increases in plastic bags since 2018 also contributed to its lower placing this year. Despite this, the retailer scored well in increases and commitments in reuse, so we would expect this position to shift as those changes take effect in coming years.

Above right: Exterior of Waitrose supermarket, the leader in this year's league table for the second year running

Figure 1 (right): The league table for 2018

Figure 2 (opposite page): The league table for 2019





**Above:** A display of refill dispensers for dry goods. Refill systems enable customers to bring their own containers and dispense products according to need without relying on unnecessary plastic packaging

## Targets

The analysis applied objective criteria to assess progress and tried to strike a balance between rewarding progress relative to targets, as well as ensuring targets were ambitious.

The survey included questions on overall packaging in addition to plastic packaging, given concerns that plastic reduction might be solely achieved by material substitution, for example by switching out plastic for paper, wood and other materials which also have negative environmental implications. We are urging companies to prioritise packaging-free solutions wherever possible and scale-up systems for reuse and refill to avoid single-use packaging altogether.

The survey asked companies to specify their reduction target and the timeframe for achieving it, as well as the baseline they are using as their metric. Additionally, companies were asked for information on how they are measuring their progress, for example in units or in weight, and whether the target is relative or absolute.

In terms of all packaging materials, six supermarkets have set targets, the most ambitious being a reduction of 50% by 2025 (Aldi, Sainsbury's, Tesco and Waitrose, with baselines ranging from 2007-17). Asda, Co-op, M&S, Morrisons and Ocado are yet to set overall packaging targets while Lidl and Iceland are targeting lower reductions, reported at 25% by 2025 and 10% by 2023 respectively.

**Table 2:** Plastic reduction targets for top UK supermarkets

Retailer	Plastic reduction target	Timeframe	Type
Aldi	50% (own-brand)	2025 (2019 baseline)	Relative, by weight
	30% (brand)	2025 (2019 baseline)	Absolute, by weight
Asda	15% (own-brand)	2021 (2017 baseline)	Relative, by weight
	3 billion pieces	2021 (2017 baseline)	Absolute
Co-op	6% (own-brand)	2020 (baseline 2018)	Relative, by weight
	15% (own-brand)	2022 (baseline 2018)	Relative, by weight
Iceland	100% (own-brand)	2023 (2018 baseline)	Absolute, by weight
Lidl	20% (own-brand)	2022 (2017 baseline)	Relative, by weight
	40% (own-brand)	2025 (2017 baseline)	Relative, by weight
M&S	4% reduction (across primary packaging)	2019 (2018 baseline ongoing annual commitment to remove 25m units in 20/21)	Absolute, unit and weight measurements
Morrisons	50% (own-brand)	2025 (2017 baseline)	Relative, by weight
Sainsbury's	50% of primary and own-brand packaging	2025 (2018 baseline)	Absolute
Tesco	1 billion pieces and 'all unnecessary plastic packaging'	2020	Absolute, unit and weight based
Waitrose	20% (own-brand)	2021 (2018 baseline)	Absolute, by weight



## The plastic packaging footprint

This year's survey revealed that, during 2019, the 10 major supermarkets put 896,853 tonnes of plastic packaging on the market.

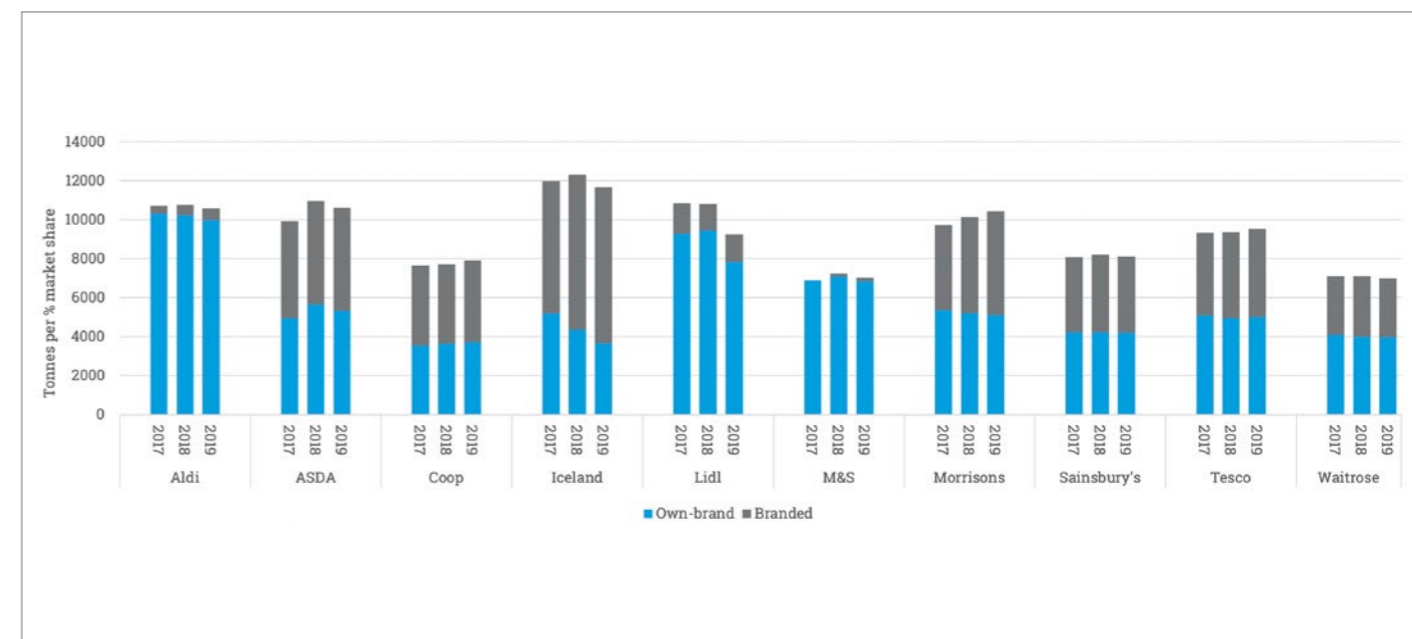
This year's survey revealed that, during 2019, the 10 major supermarkets put 896,853 tonnes of plastic packaging on the market. This is a 1.6% reduction over the previous year, but still a 1.2% increase over the three-year period of the survey.

According to data provided, the 10 supermarkets put 886,021 tonnes of plastic packaging on the market in 2017

and 911,468 tonnes in 2018. Eight of the 10 reduced their plastic footprint from 2018-19, with more than half of the reductions in absolute terms coming from Asda.

A higher and more consistent trajectory across the board would be expected if plastic reduction efforts were sufficient and having the necessary impact.

**Figure 3:** Plastic packaging placed on the market by the top 10 UK supermarkets per 1% market share, for both own-brand and branded products



**Top:** An example of flimsy, lightweight plastic packaging that in most cases will not be collected or recycled. Its destination could be landfill, incineration, export or the natural environment

# Own-brand versus branded reductions

From the survey responses it is clear that reductions are being driven predominantly through reductions in own-brand plastic packaging.

Indeed, the strategy to address own-brand packaging as a priority is clear looking at the targets set by the companies, which generally lack reduction targets specifically for branded products.

Overall, plastic packaging from own-brand goods reduced by 1.3% from 2017-19. Some retailers are making major progress in own-brand plastic packaging reduction (e.g. Iceland achieved a 29.2% reduction in own-brand plastic packaging from 2017-19). However, this approach has limitations given branded goods can make up 40-60% of a supermarket's sales (although this is significantly lower in some retailers, e.g. Lidl, M&S and Aldi).

In contrast to own-brand goods, the plastic footprint of branded products across the sector increased by more than 5% from 2017-19. Just two companies reported reductions during the period - Sainsbury's and Waitrose - while some companies reported fairly substantial

percentage increases in those numbers (e.g. Aldi, +79.9%).

Clearly, the primary responsibility to address their plastic footprint lies with the consumer goods companies themselves, although the potential influence of supermarket retailers on these companies should not be understated. More progress is needed in the form of ambitious pledges to delist or, in other words, refuse to stock branded suppliers who fail to meet stringent plastic reduction ambitions.

We urge all the supermarkets to undertake more robust engagement with the major polluting brands, such as Coca-Cola, Nestlé and PepsiCo,<sup>11</sup> to rapidly scale up initiatives in reuse, refill, recycled content, recyclability and overall packaging reduction.

**Below:** Plastic can be carried across the ocean by prevailing winds and currents, often collecting in 'garbage patches' or gyres, as well as on shorelines around the world



As a recent analysis from Changing Markets Foundation has shown, the major global brands have a proven track record of undermining progressive legislation and failing to meet their own environmental targets.<sup>12</sup> Delisting or otherwise placing specific criteria within sourcing policies and clearance to supply systems is a key tool to drive down the plastic footprint of major brands within the retail sector, an initiative which needs sector-wide buy-in from both retailers and brands.

Examples of the types of pledges that supermarkets are making in terms of their supply chain engagement include creating a list of allowable plastics for packaging, the elimination of certain polymers (such as expanded polystyrene and polystyrene), a minimum requirement on recycled content or a pledge to not launch new products with 'excessive packaging' or which is unrecyclable.

Figure 4: Global plastic footprint of the top polluting companies in 2020<sup>13</sup>



Table 3: Overview of responses to question on pledges to delist branded products contained in excessive or non-recyclable packaging. Asda, Co-op, Iceland, M&S, Ocado and Sainsbury's have not made specific pledges to delist products.

	Aldi	Lidl	Morrisons	Tesco	Waitrose
<b>Type of pledge</b>	100% of all products (including brands) to be reusable, recyclable or compostable by 2025	100% of products from branded suppliers are recyclable, reusable or refillable by 2025  As a minimum, 20% reduction in plastic packaging by 2022  As a minimum, 50% recycled content by 2025	Have committed to engage branded suppliers, but no specific target and prefer to see delisting as last resort	No new product will be launched that has excessive packaging or is not recyclable under 'New Product Induct Policy'	By 31/12/2021 the following plastics will no longer be permitted: • Polystyrene (PS) • Expanded Polystyrene (EPS) • Polyvinyl chloride (PVC) • Polylactic acid (PLA)  All of these polymers - PE, LDPE, HDPE, PET, rPET, PP - must contain a minimum 30% recycled content, and complex laminates moved to mono material  Created allowable plastics list comprised of polymers listed above

Lidl described its work with suppliers to ensure the pledges are part of contractual terms and conditions and the targets for brands are time-bound and measurable (namely, that 100% of products from branded suppliers are recyclable, reusable or refillable by 2025 and a 20% reduction in plastic packaging by 2022).

Part of the challenge is accessing accurate data from brands on their plastic use. This was highlighted by Iceland, which wrote to 400 suppliers asking them to publish their total plastic packaging transparently, including both own-label and branded products. This underscores the need for transparency in order to appropriately manage plastic in the supply chain. In addition to supply chain engagement, Government-mandated reporting on plastic packaging is essential to underpin these efforts.

Below: Coca-Cola has been identified as one of the major global polluters as part of the Break Free from Plastic Brand Audit, with its containers being the most commonly found branded items present in the environment during surveys







## Overall trends in this year's survey

This year's survey revealed a number of general trends, particularly around transparency and the rate of sector-wide change to eliminate plastic.

### 1. Transparency surrounding plastic use has increased substantially, but consistency remains a challenge.

All major retailers provided data on both branded and own-brand plastic use. Iceland was the only retailer which did not include this data broken down by polymer and format type. This data is important to determine how plastic reductions are taking place, for example if it is being achieved primarily through light-weighting rather than plastic elimination and switching to alternative delivery systems.

Inconsistencies around unit reporting in previous years prevents a clear understanding of the evolution in the plastic footprint in terms of plastic units. The next step in terms of increasing transparency in the sector would be to disclose plastic reports in a sector-wide standardised format and to treat these reports like financial audits, having them independently verified and publicly available.

### 2. There is inconsistency in how well retailers are delivering on plastic reduction.

The size of the retailer and its growth trajectory do not appear to have a direct influence on whether or not the retailer is successfully reducing the amount of plastic packaging. In the context of own-brand packaging only, small – and static market share – retailers have both reduced (e.g. Iceland, -29.2%) and increased (Co-op, +4.5%) their plastic use since 2017. The same can be said for larger retailers in the Big Four, with percentage changes in plastic use since 2017 ranging from a reduction of 9.4% (Morrisons) to an increase of 4.8% (Asda).

### 3. Strategies to eliminate single-use plastic remain at an early stage of implementation.

Most retailers continue to emphasise actions related to single-use carrier bags or giveaway café items when they describe their efforts to eliminate single-use plastics. There are a few notable exceptions to this, with Waitrose and Tesco providing the most well-rounded examples of existing scalable pilots, particularly utilising reuse and refill systems as well as unpackaged produce, to address some of the higher impact categories of plastic waste.

However, most retailers – if they even discuss broader company strategies – are still in the early conceptual phase and do not have pilots in motion, plans for roll-outs or commitments in place to accelerate the transformation. For example, Iceland cites an early stage discussion with SodaStream to provide a reusable offering, but a project has not yet been developed, piloted or planned. In 2019 we had hoped to see much more evidence of the scaling of successful trials and pilots nationwide to increase the impact of plastic reduction initiatives.

### 4. Company policy for products is still inconsistent.

Some retailers have begun working with their branded suppliers to ensure their packaging ambitions are shared and implemented. An absence of this type of activity from the majority of retailers risks shifting the burden outside of the own-brand portfolio, which can be misleading when looking at overall reduction numbers.

Additionally, some companies have inconsistent approaches throughout their own operations, with their commitments not reaching marketing and promotions departments. For example, M&S has recently been criticised for the launch of its 'Little Shop', which included giveaways of throwaway plastic and other single-use items, although customer feedback led M&S to increase recycled content and durability.<sup>14</sup>

To achieve the necessary system change, company-wide buy-in to plastic reduction efforts is needed, with creation of coherent cross-departmental and cross-organisational policies which look at internal operations, staff engagement, promotions and delivery systems, as well as customer-facing packaging.

### 5. Retailers are mostly supportive of stricter regulatory and policy requirements.

Although there is some criticism of the existing Extended Producer Responsibility (EPR) implementation in the UK, there is fairly broad support by retailers for the revision of these types of regulations to support better packaging and for using funds generated from schemes such as EPR to improve domestic recycling capacity and incentivise design for reduction of plastic and reuse.

Some retailers highlighted concerns about the 'all in' nature of Deposit Return Schemes (DRS), in particular the inclusion of glass, and suggest it should form part of a more comprehensive investment strategy to boost recycling infrastructure.

Some retailers, such as Co-op, not only have clear policy positions but are also involved in investigating improvements to the current policy proposals, for example by looking at the role of technology in DRS to bring more containers into scope, integrate with kerbside collection and improve access. Engagement to support these measures is generally through trade bodies such as the British Retail Consortium, the Plastics Pact or direct engagement with policymakers such as Defra.

Few of the companies, however, are supportive of mandatory targets or other requirements on re-usable packaging or plastic reduction set at a Government level and prefer to set ambition at the company level, which is something we would encourage greater ambition on.

### 6. Light-weighting remains a dominant strategy for reducing the plastic footprint.

'Light-weighting', the process by which packaging is redesigned to reduce its weight, remains a common approach by supermarkets to reduce plastic packaging.

Some progress in the elimination of unnecessary plastics such as trays and lids has been made; however, reductions driven by these measures were lower in scale and impact. Although light-weighting can have positive impacts in terms of carbon footprint, reducing components and total amount of material in packaging, there are concerns that it may result in significantly increased use of lighter plastics which are less easy to recycle, unrecyclable or not economically viable to recycle.

We encourage retailers to go packaging-free and shift to reuse wherever possible. In 2020 Greenpeace launched the report *'Unpacked: How Supermarkets Can Cut Plastic in Half by 2025'* which identified the potential to reduce plastic by 70–90% in 13 product categories, predominantly through strategies of elimination of packaging, refill and reuse.

Directing efforts to some of the high-impact areas such as vegetables and salad, water, milk and household cleaning products could yield high-impact results in meeting plastic reduction targets without resorting to light-weighting.<sup>15</sup>

# Retailer snapshot: highlights and lowlights

When evaluating the efforts of the retailers, we examined them across all categories, collecting exhaustive information with which to compare priorities and progress.

Implementing ambitious policies does not happen overnight, but in their responses we are looking for coherence across policies and investment in the types of initiatives that have potential for scale and impact in reducing plastic pollution.

In this section we provide an overview of the 10 supermarkets, highlighting areas of positive improvement and areas where they are lagging.

**Table 4:** An overview of best performing areas and places for improvement for the 10 major UK supermarkets

Retailer	Best performing areas	Could be better
<b>Aldi</b>	<ul style="list-style-type: none"> <li>Reduction of own-brand related plastic use by 3.2% per unit of market share between 2017-19 while growing market share.</li> <li>Eliminated single-use carrier bags and reduced 'bags for life' per unit of market share in 2019 by 4%.</li> <li>Reduced ultra-light plastic produce bags by 51% per unit of market share between 2018-19 and pledged to remove them altogether by end of 2020.</li> <li>Reduced plastic water bottles in its own-brand range by 28% between 2018-19.</li> <li>Active engagement with policymakers and disclosure of activities.</li> <li>High level of transparency.</li> </ul>	<ul style="list-style-type: none"> <li>Very few initiatives to increase the use of reusables beyond some limited commitments.</li> <li>Amount of plastic placed on the market per market share is high. Would like to see planned approach to plastic reduction clearly articulated in growth strategy, including targets for increasing reuse to drive this reduction.</li> </ul>
<b>Asda</b>	<ul style="list-style-type: none"> <li>7.9% reduction of own-brand plastic use between 2018-19.</li> <li>Commitment to a minimum 40 reuse or refill products by 2023, starting with trial stores in 2021.</li> <li>5% reduction in plastic produce bags since 2017 per unit of market share.</li> <li>High level of transparency.</li> <li>Plan to increase use of recycled content in plastic packaging on an ambitious timeline (by 2020).</li> <li>Sustainability store trials should lead to more reuse, which if scaled up has the potential for significant plastic reduction</li> </ul>	<ul style="list-style-type: none"> <li>Total plastic use 4.8% higher in 2019 than 2017 in absolute terms, and 7.3% higher per unit of market share.</li> <li>Upwards trend in 'bags for life'.</li> <li>Sales of own-brand plastic water bottles increased in 2019.</li> <li>Company positions and lobbying efforts are fairly weak in comparison to competitors.</li> </ul>
<b>Co-op</b>	<ul style="list-style-type: none"> <li>Third lowest plastic tonnage per unit of market share of all the retailers.</li> <li>High level of transparency.</li> <li>Highest proportion of plastic packaging classed as 'widely recyclable' of all retailers.</li> <li>progressive company position on policies and good level of engagement</li> <li>Innovation (e.g UK plastic film recycling trial)</li> <li>Decrease in plastic bags (-35% since 2018 per unit of market share).</li> </ul>	<ul style="list-style-type: none"> <li>Total plastic use has increased since 2017, by 3.5% in both absolute terms and per unit of market share.</li> <li>Low proportion of fruit and vegetables sold without plastic.</li> <li>Supplier engagement and pledges to delist could be more ambitious.</li> <li>Limited action on reuse as its focus remains on recycling.</li> </ul>
<b>Iceland</b>	<ul style="list-style-type: none"> <li>Absolute own-brand plastics reduction of 29% since 2017.</li> <li>Positive and active company positions on key policy areas, particularly around transparency.</li> <li>High level of ambition for own-brand plastic packaging reduction.</li> <li>Stopped selling single-use plastic cups, cutlery and coffee cups in store. Once existing stocks are cleared, this will represent a big reduction for the company.</li> </ul>	<ul style="list-style-type: none"> <li>Branded plastic use is increasing, reducing the overall reduction in plastic use achieved to 2.7%.</li> <li>Highest plastic use per unit of market share of all 10 retailers.</li> <li>Transparency is mixed, with a lower level of capability to disclose the data than requested.</li> <li>Few commitments or plans in place to tangibly increase reusables, but some future initiatives are discussed.</li> <li>Significant increase in plastic bags since 2018, principally through growth in 'bags for life'</li> <li>No specific action or pledge to delist branded suppliers.</li> </ul>

**Table 4 (cont'd):** An overview of best performing areas and places for improvement for the 10 major UK supermarkets

Retailer	Best performing areas	Could be better
<b>Lidl</b>	<ul style="list-style-type: none"> <li>Absolute own-brand plastic reduction of 2.6% of plastic across the business since 2017 despite company growth and a corresponding reduction of 14% per unit of market share.</li> <li>High level of transparency.</li> <li>Recyclability and inclusion of recycled content in both plastic and overall packaging is a strong area.</li> </ul>	<ul style="list-style-type: none"> <li>Limited engagement on reuse or plans for increasing this.</li> <li>Unambitious commitments on plastic reduction.</li> <li>Limited policy positions that are consistent with our asks, with little engagement on those where they state support.</li> <li>Increase in bags, and highest use of plastic produce bags per unit of market share of all 10 retailers.</li> </ul>
<b>M&amp;S</b>	<ul style="list-style-type: none"> <li>Absolute plastics reduction of 3.5% across the business since 2017.</li> <li>Second lowest plastic use per unit of market share of all 10 retailers.</li> <li>Eliminated plastic cutlery.</li> <li>Fewest plastic bags per unit of market share of all 10 retailers helped deliver an 85% reduction in the use of plastic produce bags since 2017 per unit of market share.</li> </ul>	<ul style="list-style-type: none"> <li>Limited engagement on reuse or plans for increasing this.</li> <li>Second lowest percentage of fruit and vegetables sold loose (5%).</li> <li>Plastic strategy inconsistent across the business (e.g. marketing initiatives such as Little Shop)</li> <li>Drop in volume of single-use bags (-59% since 2018) is offset by increases in 'bags for life' (+534%)</li> <li>No specific pledge to delist branded suppliers, though this represents a small portion of the business.</li> </ul>
<b>Morrisons</b>	<ul style="list-style-type: none"> <li>Highest proportion of fresh fruit and vegetables sold loose (24%) of the 10 retailers</li> <li>First retailer to remove all plastic bags for loose fruit and vegetables – saving 269 tonnes of plastic (though the switch to paper is a concern).</li> <li>Plans to increase the use of reusable packaging in the future with target in place for own-brand range.</li> <li>High level of transparency.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in total plastic use per unit of market share of 3% per unit of market share since 2018.</li> <li>Increased sales of plastic water bottles (+12% since 2018).</li> <li>Branded supplier engagement could benefit from more tangible targets and pledges.</li> <li>Increase in plastic bags (+37% per unit of market share since 2018).</li> </ul>
<b>Sainsbury's</b>	<ul style="list-style-type: none"> <li>Absolute plastic reduction of 4.4% since 2017, however this reduces to -0.4% on a per unit of market share basis.</li> <li>Market leading commitment to reduce plastic by 50% by 2025</li> <li>Second highest proportion of loose fruit and vegetables (22%).</li> <li>Positions and engagement with policy makers that are consistent with our asks and its policy.</li> <li>Reusable trials with plans to increase.</li> <li>Removal of non-recyclable plastics.</li> </ul>	<ul style="list-style-type: none"> <li>Branded supplier engagement: no concrete pledge to delist suppliers.</li> <li>Commitments and targets to increase reusable packaging are less ambitious than other retailers. Aligned with its 50% pledge, we believe that 25% of this should be met by reusable packaging.</li> </ul>
<b>Tesco</b>	<ul style="list-style-type: none"> <li>Absolute own-brand reduction of 4.8% since 2017</li> <li>Commitments in place to reduce plastic use and increase reusables with tangible plans and partnerships nationwide (e.g. Loop).</li> <li>Pledge to delist brands that are inconsistent with its policy.</li> <li>Plastic bag decrease of 22% since 2018 per unit of market share.</li> </ul>	<ul style="list-style-type: none"> <li>On a per market share basis, total plastic use has increased by 2.2% from 2017-19.</li> <li>Significant increase in the sales of single-use own-brand plastic products such as bottles.</li> <li>Could do more direct supplier engagement on agriplastics and fisheries plastic to bolster current efforts.</li> </ul>
<b>Waitrose</b>	<ul style="list-style-type: none"> <li>Absolute reduction of 6.1% of all plastic use since 2017.</li> <li>Lowest plastic per unit of market share of all 10 retailers, with an additional reduction of 1.7% achieved since 2017.</li> <li>Removal of some single-use plastic products from its stores and cafes.</li> <li>Commitment to reuse with pilots and trials with potential to scale.</li> <li>Engagement with branded suppliers, including a pledge to delist before 2021.</li> <li>Highest reduction per unit of market share in the provision of single-use carrier bags and 'bags for life' (63%) as well as produce plastic bags (85%) of all 10 retailers.</li> <li>Third highest proportion of fresh fruit and vegetables sold loose (20%).</li> </ul>	<ul style="list-style-type: none"> <li>Agriplastics work could be expanded to include more direct engagement with suppliers.</li> <li>Recommend increasing amount of secondary packaging that is reusable, with accompanying targets.</li> <li>Clear intention of scaling of learnings of <i>Unpacked</i> in stores nationally in 2021, in addition to online.</li> </ul>



**Above:** Plastic bags are being issued in their billions in the UK but, with limited opportunities for collection and recycling and the short life span for reuse on thinner bags, there is a high risk of leakage into the environment

## Plastic bags

In 2019, 10 companies representing 95.2% of the grocery retail market sold 525 million single-use carrier bags and 1.58 billion 'bags for life', the heavier duty 'reusable option'.

This equates to almost 57 'bags for life' per UK household in 2019, more than one each week – a 4.5% increase since 2018 and 65% increase since 2017.<sup>16</sup>

Tesco and Sainsbury's were able to drive down sales of 'bags for life' by 26% and 9% respectively, from 2018-19. However, huge increases in sales by Asda, Iceland and M&S ensured that overall 'bag for life' sales still grew last year.

As a major retailer working in high volumes, Tesco's reduction of 26% represents 185 million bags compared to 2018. This is, however, still a net increase of 98 million bags when compared to 2017 sales.

In March 2020, Tesco reduced the weight of its 'bag for life', removing an estimated 187 tonnes of plastic per annum, and has now transitioned to sourcing them from 100% recycled content, a move which has the potential to lessen the overall environmental impact of the bags.

Waitrose is trialling the removal of its 10p 'bags for life' and the introduction of a more durable and higher price point to encouraging reuse. We also note that M&S's 'bags for life' are now made from closed-loop recycled plastic from its operational plastic waste and bags can be returned by customers.

Morrisons is testing different approaches to bag use with customers to encourage greater reuse, including

phased price increases and testing a reusable paper bag capable of carrying 16kg in weight. In 2019, it increased prices of its plastic 'bag for life' in England from 20p to 30p, while keeping the paper bag prices slightly lower to encourage uptake (25p). Together this has led to significant reduction in plastic 'bag for life' sales, with the latest data reported showing volumes, on average, falling to lows of 1.66 million per week (from 2.7 million per week the same calendar week of the previous year). Although material substitution is not an ideal approach, experimenting with formats and prices to identify a plan to scale-up reuse is commendable.

Overall, the scale of plastic carrier bag usage remains incredibly high. A staggering 2.1 billion plastic bags (both the thinner 'single-use' and 'bags for life') were sent home with customers during 2019. This figure does not include ultra-lightweight bags used for produce and baked goods.

On the positive side, sales of single-use carrier bags from 2017-19 have reduced by 56%, with several retailers stopping their sale completely (see Figure 5). This is consistent with Government reports which note a 59% decrease in 2019-20 compared to 2018-19.<sup>17</sup>

Our survey showed an overall reduction in single-use carrier bags of 33% since 2018, with only Morrisons reporting an increase in sales from zero to 5.6 million, likely from online deliveries.

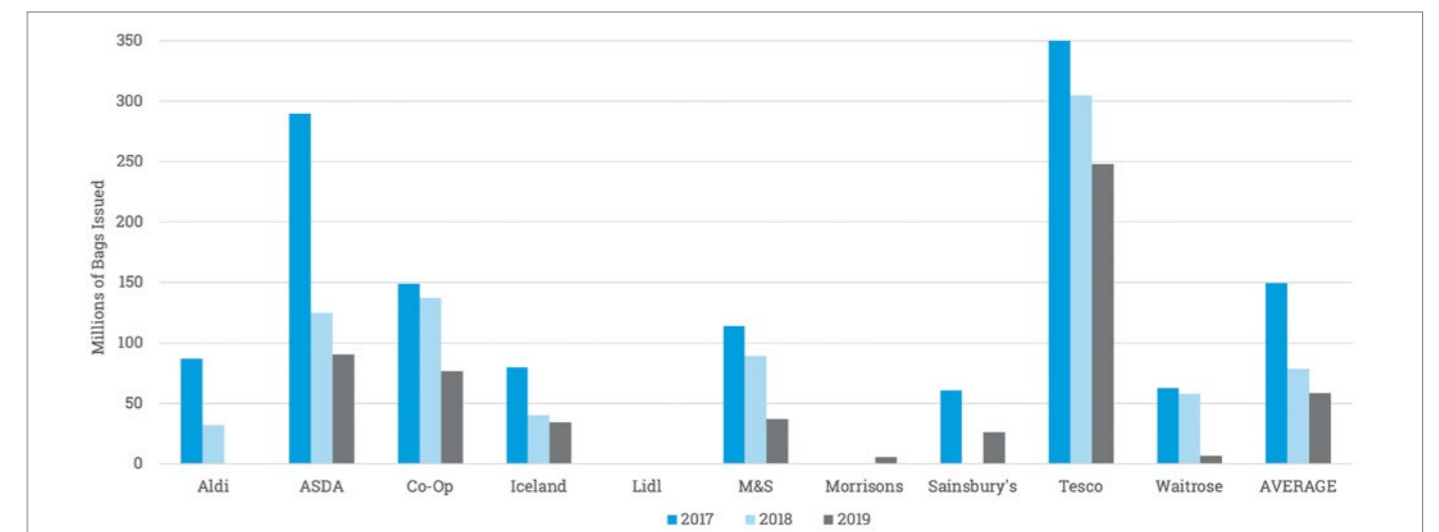
**Table 5:** Single-use plastic bag and 'bag for life' prices for the 10 major UK supermarkets and Ocado

Retailer	'Bags for life'	Single-use plastic bags
Aldi	15p	Not sold
Asda	20p	No information provided
Co-op	10p	5p
Iceland	10p	Not sold
Lidl	15p	Not sold
M&S	15p	Not sold
Morrisons	30p	5p (online only, not sold in store)
Ocado	Not sold	5p
Sainsbury's	5-20p	5-20p
Tesco	10p	40p (online only)
Waitrose	10p and £1.46	30p (per online order)



**Above:** Despite being intended for reuse, data indicates that 'bags for life' are being treated as single-use. Their durability could lead to significant environmental problems if not disposed of properly

**Figure 5:** Total number of single-use plastic bags issued in 2017, 2018 and 2019



**Figure 6:** Total number of 'bags for life' issued in 2017, 2018 and 2019

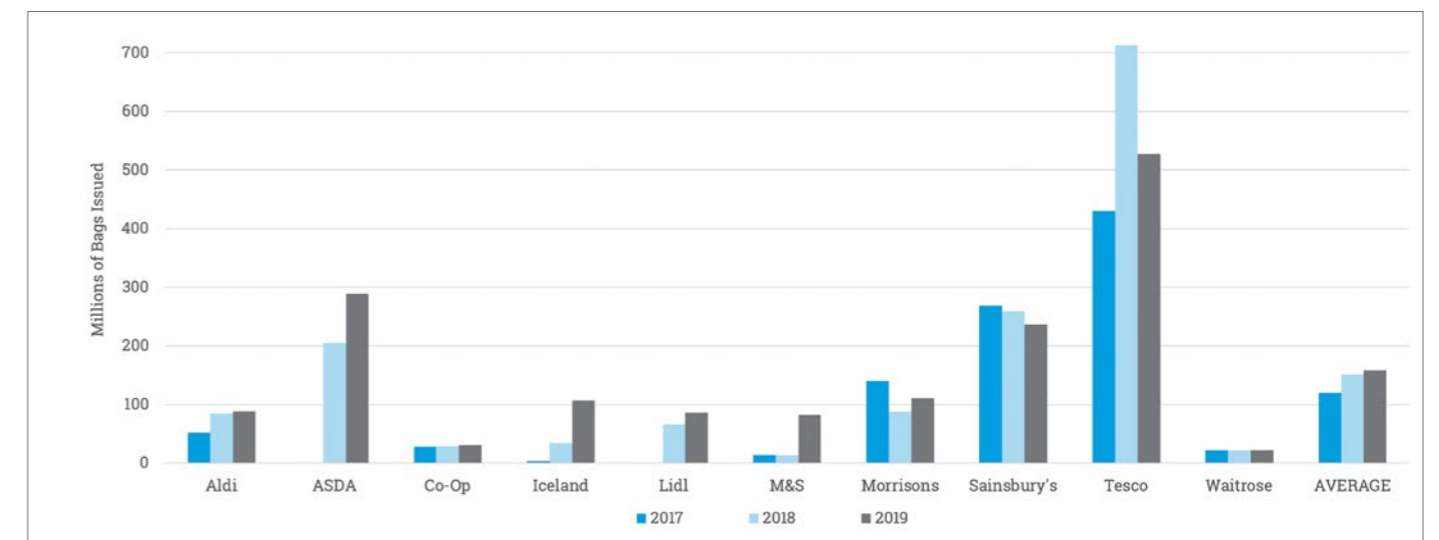


Figure 8 shows the percentage change in combined plastic bag sales (single-use and 'bags for life') from 2018-19 per 1% market share.

While four companies made overall reductions (Waitrose, Tesco, Co-op and Aldi), six (Iceland, Asda, Lidl, M&S, Morrisons and Sainsbury's) reported increased sales, with the growth being driven by sales of 'bags for life'. The data show a large range of progress in reducing sales of plastic bags by the retailers, from a 63% reduction by Waitrose to a staggering 91% increase by Iceland.

The Government charge for single-use carrier bags is due to increase to 10p in April 2021, but the data suggests the current plastic 'bag for life' model, whereby a heavier bag is offered at a slightly higher price to encourage reuse, is not working.

Our recommendation to retailers remains the same – to concertededly focus efforts on reducing the sales of plastic 'bags for life' through encouraging customer reuse to ensure the continuing upward trend in sales is stemmed. We recognise that the retailers are seeking solutions to this challenge and responding to the concerns we raised about high numbers of 'bags for life'. Lidl, for example, noted in its response that it has trialled banning 'bags for life' across Wales in response to alarming 'bag for life' numbers.

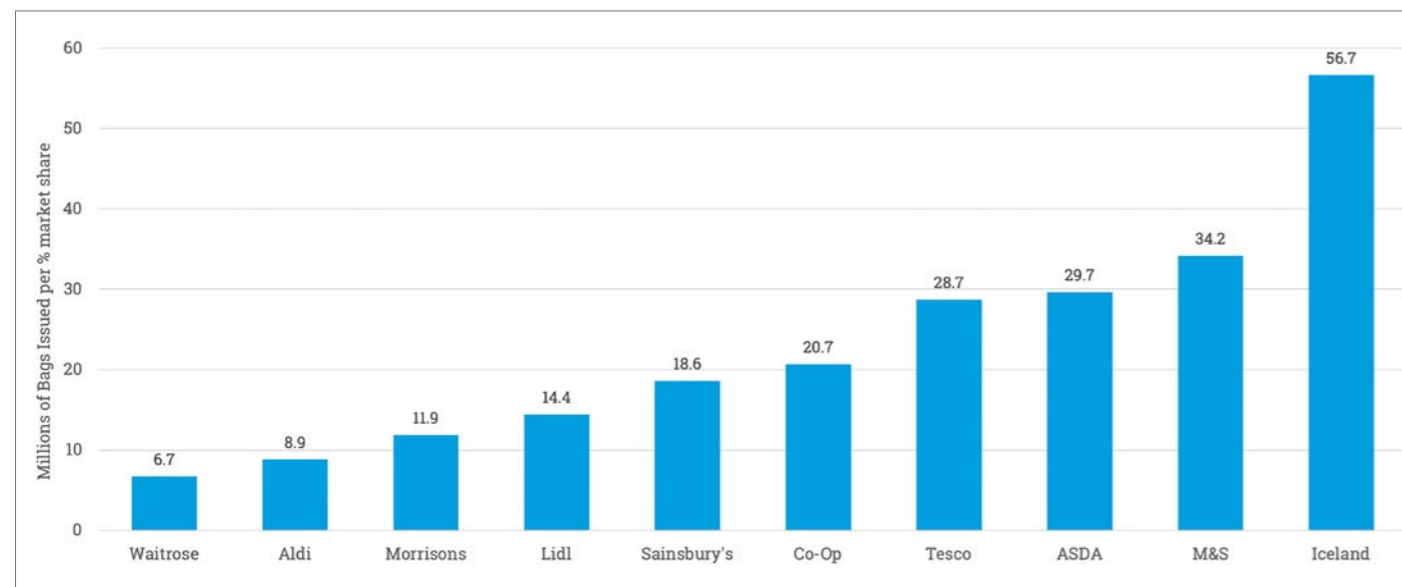
We urge supermarkets to encourage reuse and create a price disincentive, for example by increasing the charge to at least 70p. Wherever possible, supermarkets should be sourcing 'bags for life' made from 100% recycled content and not relying on virgin plastic for their production, in addition to continuing to decrease the numbers of single-use bags.

We would also welcome further Government engagement on a ban on plastic bags to create a level playing field for all retailers. In the meantime, we hope that more supermarkets will consider their own plastic bag bans.



**Right:** Further examples of 'bags for life' issued by UK supermarkets

**Figure 7:** Number of single-use plastic bags and 'bags for life' issued in 2019 per % market share (not including ultra-lightweight grocery bags)



**Figure 8:** Percentage (%) change in single-use plastic bags and 'bags for life' sales from 2018-19 per % market share





**Above:** The volume of plastic bottles issued in the UK is staggering. For single-use plastic water bottles alone, the 10 supermarkets reported 2.46 billion sold or given away in 2019

## Single-use items

We urgently need to change the mindset of products being sourced, designed, manufactured, transported and sold to be used just once and then thrown away.

Our linear model of production and consumption is costing the Earth and the mindset of take, make, dispose is perpetuating the environmental challenges we are facing. Our emphasis in engagement with retailers is to shift the perception of plastic so that it is treated as a valuable commodity, used responsibly and only for essential purposes. It should also be easily recyclable and designed with circularity in mind.

Substituting plastic for other materials or making single-use items from bioplastics or biodegradable plastics only serves to perpetuate the myth that single-use is acceptable.

In our survey, we asked for data on single-use items such as bottles, cutlery and cups, providing the retailers with definitions as to how to count this information and to label whether items were provided for free or sold. These items represent high volumes of units and are a significant opportunity for plastic reduction through their removal.

Consistency in the data provided has been an ongoing challenge, with wildly varying numbers in the year-on-year comparisons suggesting inaccurate reporting, lack of access to data or huge fluctuations in sales.

### Water bottles

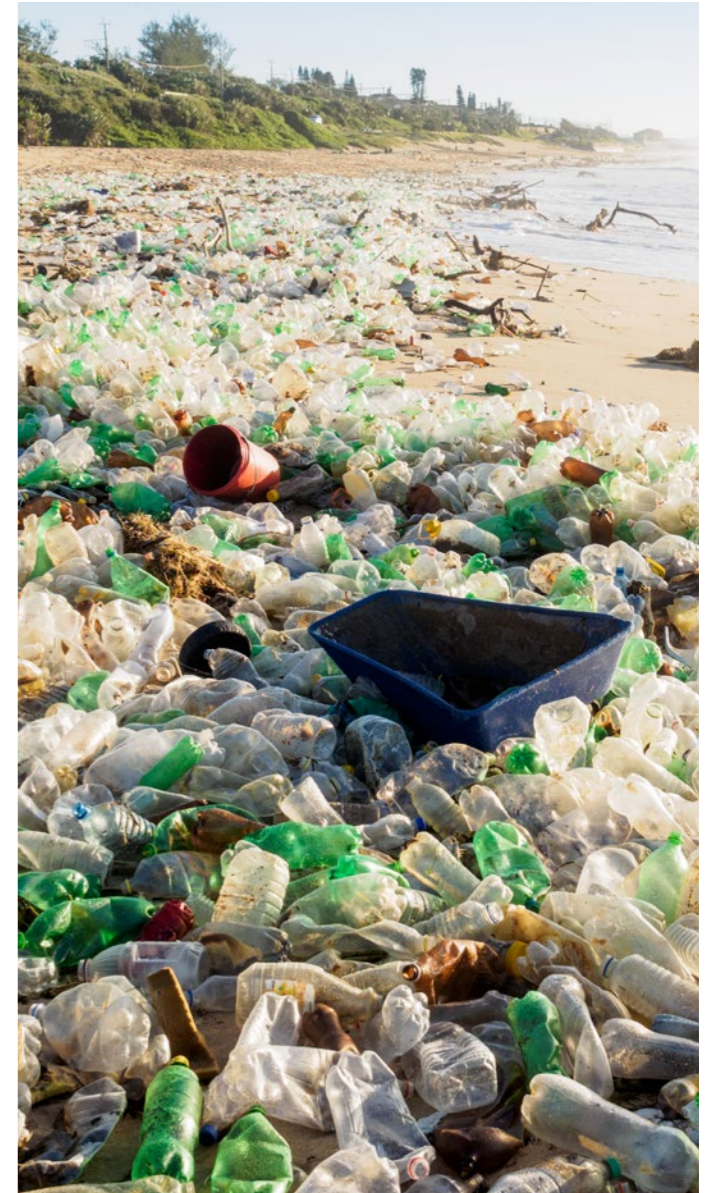
To collect data on bottles, we asked the retailers to count all types and sizes of plastic water bottles (including flavoured, sparkling, etc) and to include each bottle in a multipack as an individual unit. For instance, a six-bottle multipack of water represents six units.

Single-use plastic water bottles are a major area of concern. With some of the best quality drinking water in the world available effectively for free, we have been encouraging supermarkets to encourage customers to refill their water bottles in-store by providing refill stations wherever possible, something many of the retailers confirmed was in place.

As identified in the Greenpeace *Unpacked* report, a reduction in water bottle sales of 90% would save more than 31,000 tonnes of plastic per year.<sup>18</sup> The simplest and most effective option to reduce plastic pollution from water bottles is for supermarkets to simply stop selling them. However, as a large volume item with a high sales margin for retailers, there is a clear reluctance to remove them from shelves.

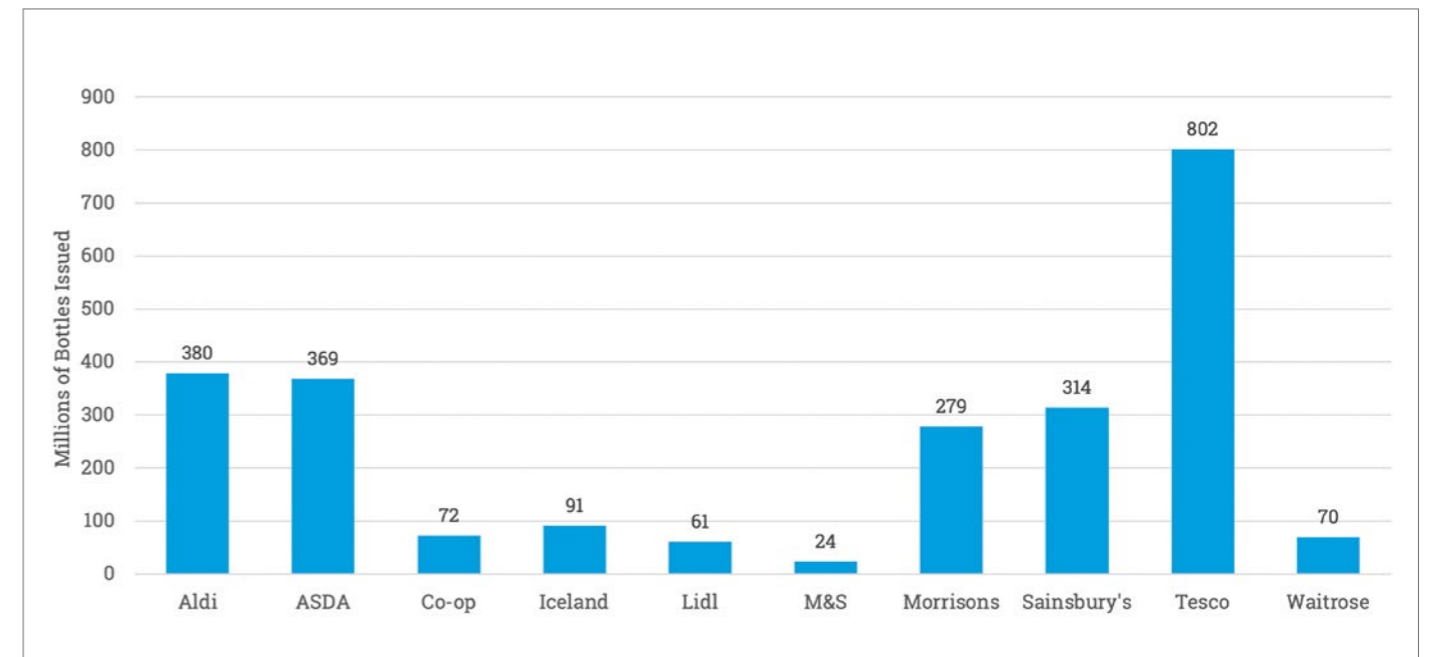
Data on bottles has been collected since 2017, but a year-on-year comparison is not possible due to inconsistencies in reporting. For own-brand bottles, five retailers reported 692 million in 2017, and eight retailers reported 1.10 billion in 2018 and 1.25 billion bottles in 2019. The 10 major UK supermarkets reported 2.46 billion branded and own-brand single-use plastic water bottles were sold or given away in 2019.

Despite efforts by some to move to 100% recycled PET bottles (e.g. Co-op) to reduce the reliance on virgin plastic, the overall volume remains staggering and we urge retailers to act now to support refill systems for water and end the provision of free single-use bottles for customers as part of promotions.



**Above:** Plastic bottles are a common feature on 'top 10' lists around the world of most commonly littered items. Policy initiatives such as Deposit Return Schemes are specifically aimed at reducing the numbers of bottles found in the environment, but are yet to be implemented on the scale required for real change

**Figure 9:** Number of branded and own-brand single-use plastic water bottles sold or given away in 2019 by the 10 major UK supermarkets



## Cutlery

The use of plastic cutlery also appears to have risen year-on-year. From 143 million units in 2017 to 166.3 million units in 2018 and 195.5 million in 2019, representing a 37% increase in plastic cutlery sales and give aways by the 10 major UK supermarkets from 2017-19. These reported data are, however, skewed by gaps and inconsistencies.

Tesco, for example, reported 52.2 million units of cutlery in 2019, a 2,700% increase from 2018. This is likely due to the company reporting branded cutlery found in packaged food that it had not done previously. In addition, no 2017 data was provided by Morrisons and Sainsbury's. These inconsistencies make year-on-year comparisons problematic, and further highlight the need for legally-mandated reporting.

M&S, Waitrose, Aldi, Iceland and Lidl have stopped providing or selling plastic cutlery to customers completely, with others reporting a switch to other materials such as wood. We urge all supermarkets, but particularly those which have an increasing trend in sales (Morrisons, Co-op and Tesco), to provide reusable cutlery and crockery in in-store cafes and encourage customers to bring their own cutlery for takeaway items, noting commitments by retailers such as Asda to remove all plastic cutlery from own-brand pre-packaged 'Food to Go' items following successful trials.

Engagement with brands to eliminate single-use cutlery in pre-packaged products will also be important. In implementing removal strategies, we advise against retaining the single-use model by transitioning to unconventional plastics or other non-plastic materials as these present their own issues and simply displace the burden elsewhere.

Despite a lack of clarity on the overall picture, it is clear that supermarkets are not doing enough to scale down this unnecessary source of plastic pollution. Ultimately, efforts by the retailers to phase out the free provision of single-use plastic cutlery should be supported by comprehensive regulation to end the use of non-essential single-use items entirely, building on recent legislation banning other harmful disposable plastic items.

## Cups

For the past three years, EIA and Greenpeace have asked supermarkets how many single-use plastic coffee cups they sold or gave away in their stores and cafes. Similar to 2017-18, we note the number of plastic coffee cups distributed in 2019 decreased by 35.3% compared to 2018, with the majority of the reduction due to Waitrose removing them from sale altogether.

Sainsbury's and Iceland also made major reductions, by 49.6% and 91.6% respectively, with Iceland eliminating them altogether. On the other hand, Asda and M&S reported an increase in issuance of plastic coffee cups and Tesco increased sales by 53.9% on 2017 figures, despite a 2% decrease compared to 2018. Co-op's coffee provision moved into a franchise and was thus not



**Above:** Single-use plastic items such as cups and cutlery are a major source of plastic pollution and we encourage retailers to stop selling and giving away these items

accounted for in its reporting numbers.

Overall, from 2018-19, supermarkets decreased the sale and provision of single-use plastic coffee cups from an estimated 75.2 million units in 2018 to 48.7 million in 2019, a reduction of 35.3%.

Supermarkets also provided data on the total number of single-use plastic cups sold or given away in order to clearly differentiate between the types of cups put on the market.

Plastic cups are often used for samples during in-store promotions or sold as part of party packs. Beyond coffee, there is still an alarmingly high quantity of single-use plastic cups sold or given away by supermarkets, in particular by ASDA and Tesco (see Figure 10).

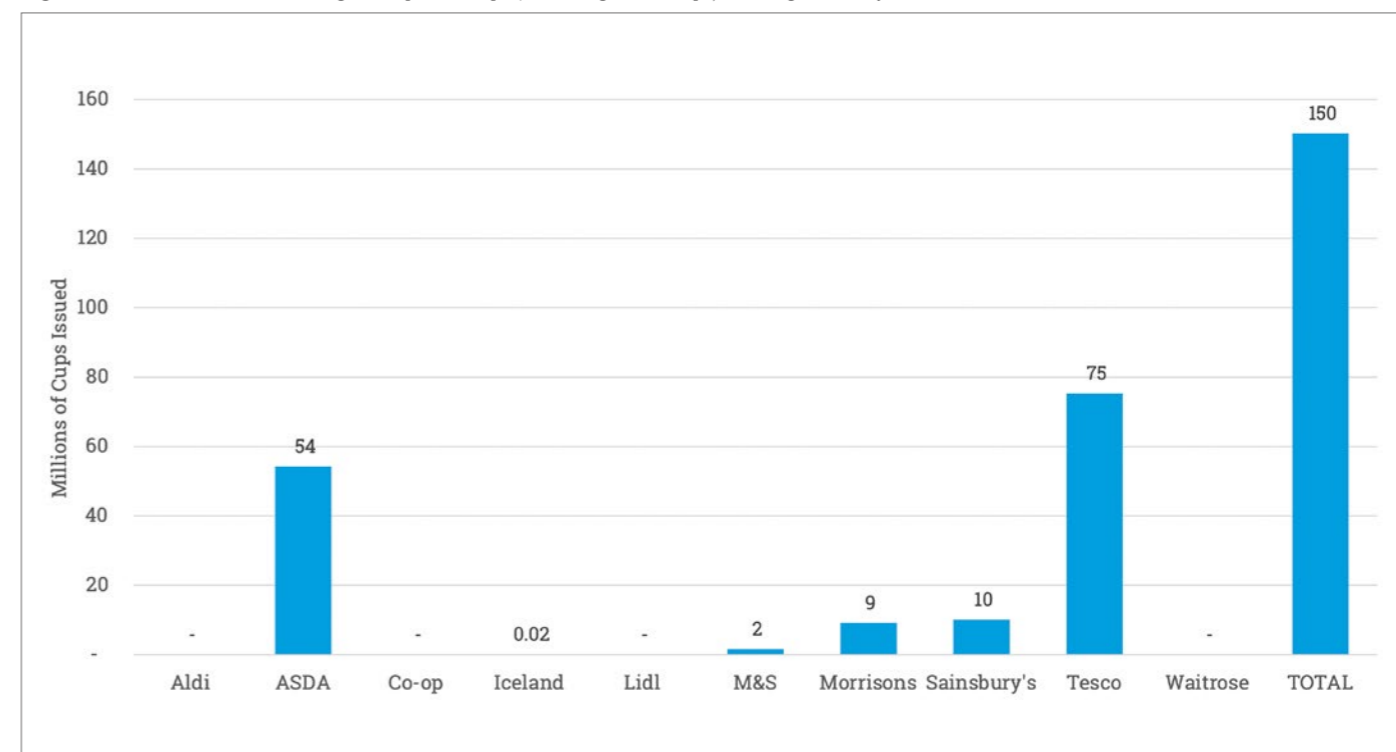
We congratulate those supermarkets which made significant reductions over this period and strongly encourage all to follow the lead of Aldi, Co-op, Iceland, Lidl and Waitrose by not stocking or giving away single-use cups.

We strongly advise supermarkets to avoid the use of 'compostable' or 'biodegradable' cups due to the issues these items cause at end of life. A number of retailers reported in their responses a move towards deposits for cups and reusable cups in cafes. We ask supermarkets to completely end the use of single-use plastic cups for promotional use and for sale and to shift to incentivising cup reuse through discounts for customers.

**Table 6:** Number of single-use plastic coffee cups sold or given away from 2017-19 by the 10 major UK retailers

Retailer	Number of single-use coffee cups sold or given away			Percentage (%) change
	2017	2018	2019	2018-2019
Aldi	0	0	0	N/A
Asda	10,000,000	7,000,000	10,054,305	+43.6
Co-op	265,416	392,500	0	-100.0
Iceland	Not reported	132,080	11,065	-91.6
Lidl	45,400	0	0	N/A
M&S	6,128,650	5,000,000	6,600,000	+32.0
Morrisons	Not reported	7,800,000	6,657,904	-14.6
Sainsbury's	Not reported	3,000,000	1,511,560	-49.6
Tesco	15,500,000	24,350,000	23,854,433	-2.0
Waitrose	52,000,000	27,610,140	0	-100.0
<b>TOTAL</b>	<b>83,939,466</b>	<b>75,284,720</b>	<b>48,689,267</b>	<b>-35.3</b>

**Figure 10:** Total number of other single-use plastic cups (excluding coffee cups) sold or given away in 2019





**Above:** Unpacking fruit and vegetables from unnecessary plastic packaging should be a top priority for retailers. This could support efforts to reduce food waste, as customers will select only what they need, as well as eliminating plastic packaging

## Fruit and vegetables

The survey asked retailers what proportion of fruit and vegetables are currently sold loose compared to pre-packaged, noting that a frequent complaint from consumers is the unnecessary plastic packaging often seen on fruit and vegetables.

Morrisons, Sainsbury's, Waitrose and Aldi reported the highest proportion of fruit and veg sold loose with several describing efforts and targets to increase this percentage, for example following trials of new weighing systems (e.g Aldi). We lack historic data for comparison except for Aldi and Lidl. These two companies increased the quantity of loose fruit and veg sold by just 2% and 1% respectively from 2018-19.

In its response, Asda did not provide a percentage proportion, but described efforts to remove plastic and provide reusable vegetable bags for 30p, coupled with point-of-sale information for customers to encourage reuse.

Iceland reported selling only 2.7% of fruit and veg unpacked, limited to honeydew melon, pineapple and swede. In its rationale, it pointed to a lack of infrastructure for weighing loose items and potential concerns around food waste.

Targets to increase these percentages are lacking or modest, demonstrating that national expansion of unpacked fruit and veg remains in its early stages.

Supermarkets were also asked for data on the ultra-lightweight bags provided in the fruit and veg and bakery sections, noting that these bags are a particular concern due to their flimsy composition making reuse unlikely. In this respect, we saw some progress, with six

supermarkets reporting a reduction. Waitrose reported the largest reduction on a market share basis (87%) since 2017 (see Figure 13).

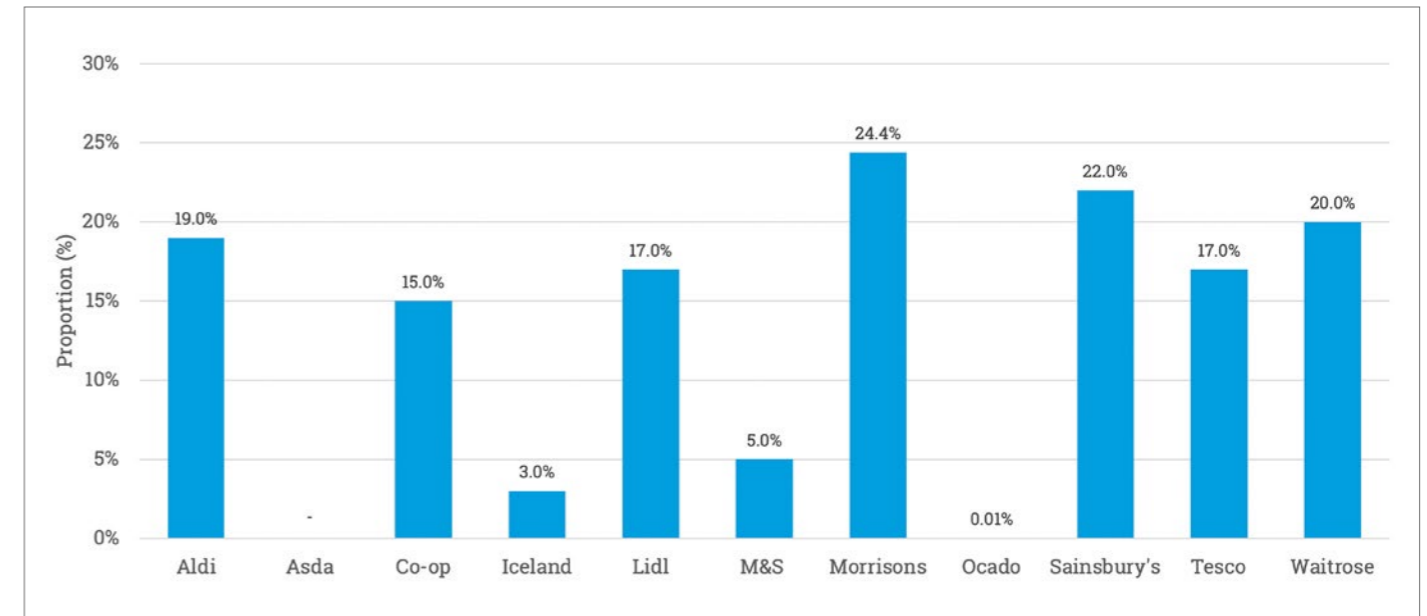
Morrisons was the first UK supermarket to remove all plastic bags for loose fruit and veg and replace them with a paper alternative. This has removed 176 million bags per year, the equivalent of 269 tonnes of plastic, although the switch to paper remains a concern.

Aldi estimated that the removal of the bags will save an estimated 53 tonnes of plastic per year, while Lidl reported it would save approximately 250 tonnes of plastic per year due to light-weighting the ultra-light bags rather than removing them. Although this reduces weight, replacing plastic with plastic is not a solution that we would endorse; the same number of plastic bags is still being produced and used.

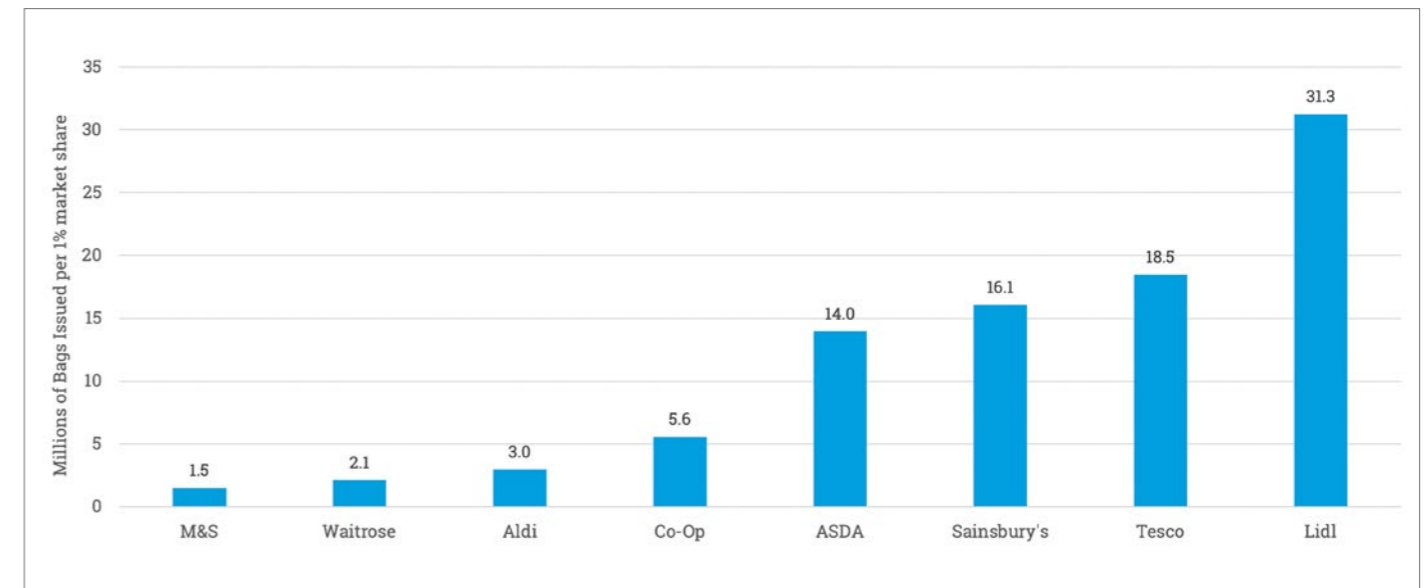
Waitrose explored material substitution to drive down the use of ultra-light bags, in its case via an alternative derived from corn starch which can be home-composted or used as a food waste caddy liner, in addition to a reusable bag to use for fresh produce.

Several retailers reported providing reusable and recyclable bags to encourage customers to reuse, although it was concerning to note that not all retailers provided a plan to scale-up unpacked ranges and provide reusable bags for these loose products.

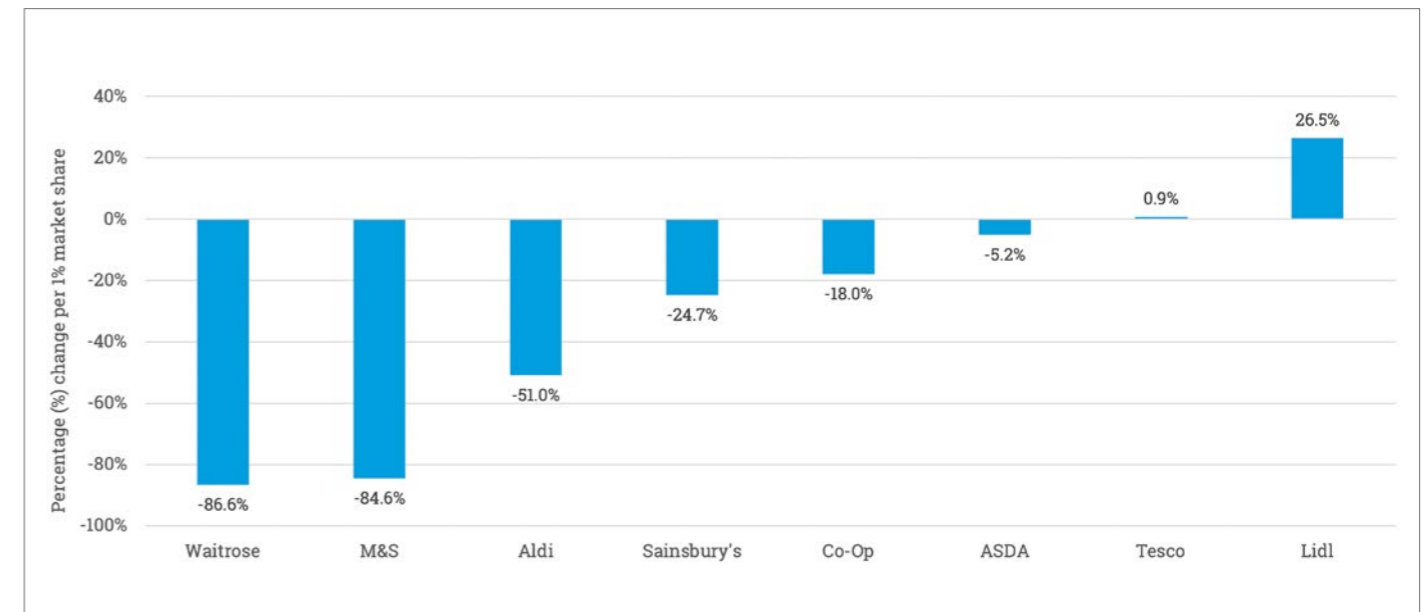
**Figure 11:** Proportion (%) of fruit and veg sold loose rather than pre-packaged. No data was provided by Asda



**Figure 12:** Number of ultra-light plastic produce bags issued by eight major UK retailers in 2019 per % market share



**Figure 13:** Percentage (%) change in ultra-light plastic produce bags issued from 2017-19 per 1% market share



## Reuse and refill

Reuse and refill are at the heart of our recommendations to retailers. This year, we have seen more retailers trialling reuse and refill systems, which we hope to see scaled up and rolled out to as many stores as possible in 2021.

Although there is increasing enthusiasm for reuse and refill, some retailers shared challenges they faced. M&S described three challenges: 1) customer acceptability to drive uptake; 2) avoiding unintended negative consequences of additional food waste; and 3) finding formats which can work in hundreds of stores across the country. Co-op also noted its store format presented challenges.

Asda opened a sustainability store in Leeds in October 2020, with the potential to demonstrate how the reuse and refill approach could offer savings and establish a model to debunk misconceptions about the cost disincentives of reuse to shoppers, something that will be increasingly important as the country builds back from COVID-19.

Asda's store includes extensive refill stations to provide plastic packaging-free groceries. The store carries brands such as PG Tips, Vimto, Kellogg's, Radox and Persil, as well as own-brand staples such as pasta and rice. Asda estimates the store will eliminate approximately one million pieces of plastic per year.<sup>19</sup> A key feature of the launch is a 'Greener at Asda Price' guarantee to ensure loose products will not cost more than packaged equivalents. The company says it recognises the need for sustainable shopping to compete on price with conventional alternatives. The success of the store will influence Asda's decision to roll out more locations in 2021, which could contribute to the retailer's commitments to reduce 15% of plastic packaging by 2021 and remove three billion pieces of plastic from own-brand products by 2025.<sup>20</sup>

With several other retailers mentioning trials and pilots for this type approach and findings being shared via industry networks, the transformative potential of reuse and refill for reducing plastic is gaining traction. The next step we are encouraging is to set targets for reuse to measure progress, underpinned by Government-mandated reuse targets.

**Above right:** The refill station in Asda's new Middleton store in Leeds. Retailers are starting to trial reuse and refill more widely and we hope to see these initiatives scaled nationally in 2021

**Opposite page:** Waitrose began a trial of its 'Unpacked' initiative in its Oxford Botley Road store in 2019



**Table 7:** Summary of responses to the request for information on targets to increase the proportion of products sold through reusable and refillable packaging

Retailer	Target	Year	Baseline year	Other info
Aldi		No target		Will set a target following trial and introduction of weighing scales
Asda	Minimum of 40 reuse and refill products	2023	No baseline	Starting with trial at Middleton and two further stores in 2021
Co-op		No target		
Iceland		No target		
Lidl	100%	2021	2020	Double number of refillable/reusable plastic packaging solutions
M&S		No target		
Morrisons	14.4%	2020	2018/2019	Applies to own-brand products
Ocado		No target		
Sainsbury's	TBC but exploring detergents, water, milk, juice, carbonates	2025	2018	Working with Plastics Pact to develop target. Needs to reduce plastic and packaging and not shift the problem from consumer to back of house.
Tesco	All larger stores to have reuse offer across multiple products	2025	2019	
Waitrose	50%	2025	2018	Across the entire estate

## Case study: Waitrose Unpacked

Waitrose currently has a packaging-free and refillable concept in four shops – Botley Road in Oxford, Cheltenham, Abingdon and Wallingford – called 'Unpacked'.

*Unpacked* includes more than 160 products of loose fruit and veg and 48 products for customers to refill, from pasta and grains to coffee, frozen fruit, beer, wine and cleaning products.

- Waitrose encourages customers to bring their reusable bags and containers so it can understand how customers are prepared to shop and what they consider to be unnecessary packaging, receiving broad support from customers. To understand the impact of *Unpacked* from both a customer journey and an environmental perspective, Waitrose carried out an extensive research project and Life Cycle Analysis (LCA). Key findings include: 98% of single-use plastic packaging was eliminated across *Unpacked* products;
- the *Unpacked* proposition has the potential to reduce greenhouse gases, although this is dependent on a number of other variables.

All shops have a dedicated refillable zone. This includes dispensers for dried products, frozen 'pick and mix', coffee, wine and beer refills, as well as Ecover detergent and washing-up liquid refills.





# Recycling and recycled content

The survey asked retailers about their plans to eliminate harmful non-recyclable packaging formats from their own-brand ranges, such as black plastic, polyvinyl chloride (PVC) and films, and what percentage of the single-use plastic packaging they place on the market is classed as widely recyclable according to the On-Pack Recycling Label (OPRL) definition.

Designing with circularity in mind is a necessary strategy in the journey towards eliminating single-use plastic packaging and reducing plastic pollution.

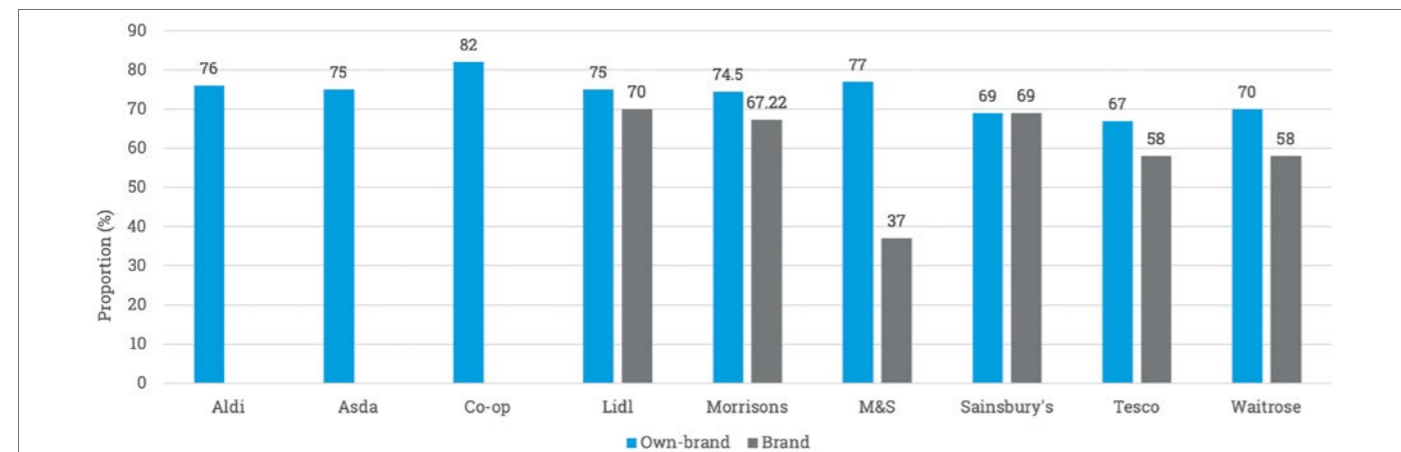
Retailers reported that 74% of own-brand packaging and 60% of branded packaging by weight is classed as widely recyclable, although the latter was only reported by six retailers, underscoring the need for more transparent reporting from brands on the composition of their products.

Current estimates are that only 75% of local councils in England accept 'widely recyclable' labelled products, with even fewer, between 20-75% of local councils, accepting the products labelled with 'check local recycling'.<sup>22</sup> With such a patchwork of capacity and the potential for consumer confusion about recyclability, a broader strategy to reduce overall packaging volumes is clearly paramount.

We encourage retailers to set targets for increasing recycled content in their products. The table shows the targets for the 10 retailers and Ocado, with most retailers aiming to include 30-50% of recycled content in packaging within the next few years.

This trend is in line with guidance within the forthcoming UK plastic packaging tax,<sup>23</sup> which applies to plastic packaging produced in or imported into the UK that does not contain at least 30% recycled plastic and has the aim of creating an economic incentive for more circular design while boosting collection and recycling.

**Figure 14:** Percentage (%) of single-use plastic packaging placed on the market by nine retailers, by weight, which is defined as 'widely recyclable' according to OPRL. <sup>21</sup> Iceland did not report for weight, but reported 56% of single-use plastics components were classified as widely recyclable by the end of 2019. Aldi, ASDA and Co-op did not report on branded goods for 2019.



We welcome the efforts of retailers aiming above the minimum given the benefits of creating secondary markets for recycled materials.

**Table 8:** Retailer targets for increasing recycled content in packaging

Retailer	Target to increase recycled content	Target year	Baseline
Aldi	50% recycled content across all packaging	2025	N/A
Asda	30% recycled content	2020	N/A
Co-op	50% recycled content in PET and HDPE rigids	2021	2019
Iceland	No specific target as focus is on plastic removal but aim to use recycled content where possible	N/A	N/A
Lidl	50% recycled content for all products	2025	2017
	30% recycled content for plastic packaging	2021	2017
M&S	30% recycled content where industrial solutions exist	2025	N/A
Morrisons	30% own-brand plastic packaging	2025	2017
Ocado	30% recycled content all own-brand packaging	2025	2020
Sainsbury's	30% all food plastic packaging	2022	2018
Tesco	30% recycled content	2022	N/A
Waitrose	All own-brand and branded products	2021	2018

# Online

This year has shown the huge potential for growth in the online grocery business, with Tesco creating 16,000 jobs to support its expansion and a prediction that sales will rise by two-thirds this year to £5.5 billion, a growth trend also seen more generally in the sector.<sup>24</sup>

It was also the first year in which Ocado participated in the survey and we were hoping to see this online grocery business demonstrate plans to maximise the potential of online for reuse and refill at home through a comprehensive plastics strategy.

We welcomed the first opportunity to view Ocado's approach to plastic reduction. On the positive side, Ocado is exploring bag-free delivery and has take-back schemes for bags and some other plastics. The collected bags are recycled as part of a closed loop created within the Ocado operation.

The response also mentioned plans to introduce more reuse and refill next year while reporting a small packaging weight reduction across the business.

It was clear from Ocado's response that its plastics strategy is at an early stage, with no plastic or overall packaging reduction target yet in place. Several opportunities exist for the company in 2021 as it undertakes a packaging redesign project for its own-brand range and is starting to work more with branded suppliers.

We encourage Ocado to set an ambitious target to reduce its plastic footprint and include a target for scaling reuse and refill within its operations, capitalising on the huge increase in demand for online groceries and its advantage as a purely online business with existing infrastructure.

Across the board, there was limited emphasis on specific online strategies for capitalising on the growth of this area, although most reported bagless delivery options and Sainsbury's included information about plans for refill-at-home testing for milk, juice, detergents and other products to establish customer uptake and assess the resource needed to make these initiatives scalable. Waitrose described exploring taking its *Unpacked* trial into its online offering.

Morrisons is one retailer providing bagless delivery and has been working with online partners, Ocado and Amazon, to reduce single-use plastic and offer refillable and reusable alternatives. For example, orders fulfilled through its Amazon Prime partnership are delivered in paper bags. Chilled and frozen products are transported inside cool bags which are retained and reused by Amazon.

Tesco's partnership with Loop, which it estimates has saved 9,000 single units of packaging from landfill

since the launch in July 2020, demonstrates the truly transformative potential of reverse logistics, bag-free shopping, unwrapped products and refill at home.

There is scope for a sector-wide prioritisation of refill at home which would drive further growth in this area and enable greater capacity for bulk buying. We hope to see more retailers setting targets in this area next year and scaling their test initiatives.

## Case study: Tesco and Loop

Loop is a project pioneered by US company TerraCycle to get rid of single-use plastic packaging on everyday products, from groceries to shampoo.

It has already partnered with some of the biggest brands and retailers across America and in France with Carrefour. In 2020, it teamed up with Tesco to bring reusable packaging directly to UK homes, initially selling online and then through Tesco's UK stores.

Loop offers well-known-branded products alongside unbranded, white label products, both in reusable packaging, for which customers pay a returnable deposit.

Purchased items are sent in vans to customers' homes in the Loop tote bag: a robust, insulated Teflon bag. Empties go back into the tote, which is picked up when the next food delivery arrives. They are then washed, dried, refilled and sold again. It is convenient for both customer and retailer – all either has to do is empty and refill reusable containers.

The trial will develop as Tesco and Loop learn what the British consumer wants from the system, which products are most popular, which elements work and what needs to be tweaked.

Both Tesco and Loop agree that a closed-loop reuse system, which minimises the amount of resources used, is unequivocally better for the environment than single-use. Scalability, which brings economic benefits, is key to its success.



**Above:** Store fronts of some of the main convenience retailers in the UK. Efforts to reduce their plastic packaging are still in their early stages

## Convenience retailers

Each year we send the survey to significant convenience retailers in the sector, this time sharing the survey with Costcutter, Spar and McColl's.

Both Spar and Costcutter noted the challenges of participating in the survey due to their role as symbol groups representing a range of smaller businesses. Costcutter was unable to provide any data except for a commitment to improving sustainability. Spar provided a breakdown of its activities, including eliminating black plastic and thus diverting 100 tonnes of black plastic from 47 products going to landfill, providing product refill stations for dry groceries, wine and household products and unpacking fruit and vegetable ranges.

McColl's was the only convenience retailer to provide specific answers to the survey questions, primarily

focused on disclosing information about plastic bags.

While the scope of information is limited, the examples from Spar in driving down virgin plastic use through recycled content, coupled with the elimination of problematic plastics and the introduction of refill stations, provides a case study for the sector on the role convenience retailers can play in tackling plastic pollution.

We urge convenience retailers to continue efforts to improve access to data in order to implement effective strategies for plastic reduction across their networks.



**Above:** A vision for the future: loose fruit and vegetables, free from plastic packaging

## Conclusions

The data provided by supermarkets for 2019 shows that while some progress is being made to eliminate single-use and unnecessary plastic packaging, it will fundamentally not address the scale of the challenges we are facing at the speed they are required to protect the planet.

Never more so than during the COVID-19 pandemic, have we seen the frontline role that supermarkets play in our communities and we now look to them to show leadership in driving urgent system changes to reduce plastic pollution and protect our health and environment.

As we emerge from the pandemic, we need to explore how these companies intend to focus on scaling up reuse and refill systems, the elimination of unnecessary and

problematic plastics and a fundamental prioritisation of waste prevention in line with the waste hierarchy.

A zero waste and circular system is not only achievable, but is economically beneficial and has the potential to re-connect consumers with the products they bring into their homes. Such a vision should be at the heart of post-pandemic recovery.

# Recommendations

We recognise that change takes time, but we urgently need UK supermarkets to be standard bearers in driving solutions to the plastic pollution crisis and not allow setbacks from COVID-19 to derail ambitious plans.

We encourage companies to collaborate and share learnings to enable faster progress across the sector, analysing trends and addressing root causes of pollution. We support pre-competitive collaboration on initiatives to address plastic reduction and the sharing of experience in workshops, communications and conferences to create a shared common vision. A summary of key recommendations are provided below.

## Single-use packaging

- **Reduction targets.** Set targets to reduce plastic packaging by 50% by 2025 (against a 2019 baseline) and map out long-term plans for cutting single-use plastic, with shorter term milestones built in. Targets must apply to both branded and own-brand goods and should achieve an absolute reduction (without being tied to sales or growth). Methods for achieving these targets should prioritise removing single-use packaging altogether and shifting into reusable packaging, rather than light-weighting or swapping one single-use material for another.
- **Packaging-free ranges and reuse solutions.** Support a wholesale transition towards packaging-free ranges and reuse and refill systems across shop floors, supply chains and product lines nationwide, ensuring price parity, availability, accessibility and awareness.
  - > **Reuse targets:** Shifting to reuse and refill systems is an essential strategy to drive down the use of unnecessary plastic packaging. In order to enable this change we recommend that retailers establish reuse targets in their operations, as well as plastic reduction targets. These reuse targets will help define the 'how' of plastic reduction efforts internally and create the enabling environment for change. Based on our work with the sector, we suggest the following targets:
    - > at least 25% of consumer packaging should be reusable by 2025, increasing to 50% by 2030;
    - > at least 75% of transit (or secondary and tertiary) packaging should be reusable by 2025, increasing to 90% by 2030;
    - > publicly share a company action plan on reuse with a timeline, which shows measurable, independently audited results by 2023.

There is a need to separate out the consumer and transit packaging targets to ensure that companies do not solely rely on transit packaging reductions to meet their targets. Reductions in front-facing consumer packaging are essential.

- **Collaborate with producers, retailers, governments and NGOs** to create scalable, standardised and reusable solutions, including support for ambitious legislation that rewards plastics reduction, incentivises reuse systems, deposit return schemes and penalises the overuse of plastics.
- **Refill at home.** Collaborate on efforts to create an enabling infrastructure with suppliers and reverse logistics to implement refill at home systems, setting targets and strategies in this area with measurable timelines for implementation.
- **Eliminate non-recyclable packaging.** Urgently eliminate all non-recyclable plastic polymers and packaging formats and make it mandatory for branded suppliers to do the same.
- **Non-conventional plastics.** Avoid false solutions involving non-conventional plastics (bio-based, biodegradable, compostable). In cases where biodegradable packaging must be used, it should be certified to British Standard EN 13432 and only sold in municipalities which have the appropriate industrial composting/anaerobic digestion facilities. We strongly recommend avoiding these materials due to lack of infrastructure to manage them appropriately.
- **Remove hazardous chemicals** and materials from products and choose toxic-free materials and products.
- **Address the drivers of single-use packaging.** Promote shorter supply chains and seasonal produce; ban excessive packaging used for marketing objectives; challenge the 'convenience' culture underpinning the wasteful on-the-go market. Ensure the policies to address these drivers are coherent across the entire business strategy.

## Single-use plastic items

- **End sales and free provision of single-use items.** This includes, but is not limited to, plastic cutlery,

bottles, cups and sanitary items. The level of ambition should extend beyond items slated for removal as part of single-use plastics legislation and should not be considered as a simple case of substituting single-use plastic for another material.

- **End sales of single-use plastic bags and increase the minimum price of plastic 'bags for life'** to at least 70p to encourage reuse before a phase out. Offer reusable produce bags.
- **Stop selling single-use plastic water bottles.**

## Working with the supply chain

- **Robust engagement with branded suppliers.** Engage with brand suppliers on reducing single-use plastics and packaging by requesting target-setting, sharing of best practices and collaborating on refillable packaging ranges. De-list companies unwilling or unable to adapt.
- **Agriplastics.** Work with fruit and vegetable suppliers on the reduction and responsible management of plastics used on farms to prevent pollution of soil, rivers and oceans. Formalise this into a policy enforced across all suppliers.
- **Fisheries-related plastic waste.** Work with fishery suppliers to implement measures to prevent abandoned, lost and discarded fishing gear and other plastic waste from fishing vessels. Adopt sourcing policies that incorporate best practices for the prevention of lost fishing gear, such as those advocated by the Global Ghost Gear Initiative, and urge certification schemes to include compliance measures related to this issue.
- **Secondary and tertiary packaging.** Introduce a comprehensive policy requiring reusable containers for transportation, storage and distribution.
- **Plastic pellet loss.** Introduce requirements for suppliers to implement best practice measures to prevent plastic pellet loss, with third party auditing and reporting requirements. We urge supermarkets to ensure that certification to the new Publicly Available Standard (PAS) on pellet loss, due to be adopted in mid-2021, is a universal obligation for all relevant actors in their supply chain.
- **Monitoring plastic waste treatment.** Look at the treatment and destinations of plastic waste in supply chain operations and monitor progress in annual reporting.

## Engagement with staff and customers

- **Staff, customer and community engagement campaigns.** Utilise all internal and external communication channels to empower staff and customers to reduce plastic, addressing financial and non-financial barriers to behavioural change.

## Transparency

- **Publicly disclose full plastic footprint breakdown** on websites and within annual, audited reports. Investors and shareholders in these companies are encouraged to promote these recommendations through their engagements. We expect to see transparency and consistency on unit, weight and component reporting.

## Engagement with Government and policymakers

This year's survey has shown that UK retailers are broadly supportive of greater regulatory efforts to level the playing field and underpin their efforts to reduce plastic pollution. We recommend the retail sector continues to engage with the Government on progressive legislation and policy, including:

- urging the Government to use the Environment Bill to set legally binding targets to reduce single-use plastics by 50% by 2025 and to introduce mandatory corporate reporting on plastic reduction in order to create a level playing field for all sections of the grocery industry;
- calling on the Government to pursue, incentivise and support standardisation of reusable packaging, including providing funding support for trials of new systems/reuse innovation;
- asking for support via financial incentives to help the sector shift over to reuse. For instance, use Enhanced Capital Allowance (ECA) schemes to assist companies with investments in plant and machinery for reuse applications;
- ensuring that the new Extended Producer Responsibility (EPR) requirements are designed to increase reuse and reduction of packaging as well as recyclability, in line with the waste hierarchy. This should be achieved through a combination of reuse and reduction targets and modulation of fees to incentivise eco-design, reuse and reduction and penalise single-use packaging. Proceeds from producer fees can be used to fund trials of new reuse and refill systems, allowing the retail sector to take advantage of the economic opportunities of reuse;
- continuing to push for an all-in Deposit Return Scheme (DRS) for drinks containers which allows for the further uptake of reuse and refill systems as well as improving recycling;
- joining other companies and the UK Government in the lead up to the United Nations Environment Assembly in 2022 in supporting the call for a global treaty to combat and prevent plastic pollution and working with the industry to input into an ambitious treaty design during negotiations;
- working with the Government to implement a closed loop integration system for recycling plastic materials from supermarkets as part of the transition to a circular economy.

# Glossary

**Agriplastics:** Agriplastics (sometimes known as 'plasticulture' or 'ag plastics') are plastic products and packaging used in agricultural production and sales. Agriplastics include mulch and greenhouse film, silage covers and bags, irrigation systems, tunnels and covers. Inappropriate disposal of agriplastics is common, with low recycling rates, and they are often burnt, abandoned in fields or watercourses, buried in the soil and disposed in landfills. This can cause soil degradation, reduced crop productivity and impact marine species if the plastics enter the ocean – the latter being a particular issue in some regions.

**Bioplastics:** The term 'bioplastics' may refer to either 'bio-based' or 'biodegradable' plastics (see definitions below). A bioplastic could be both bio-based and biodegradable.

**Bio-based plastics:** 'Bio-based' means that the material is partly or largely derived from renewable resources. One example is Bio-PET (polyethylene terephthalate), which currently comprises 30% sugarcane and 70% fossil resources. There are sustainability concerns surrounding the widespread adoption of bio-based plastics, given the huge land-use implications. For example, in 2013, bioplastic production required 600,000 hectares of land to produce 1.6 million tonnes of plastics – a fraction of the total demand for plastics, which reached 322 tonnes in 2015.

**Biodegradable plastics:** Plastics may be labelled 'biodegradable' if they meet specific industrial standards. European Standard EN13432 applies to all packaging materials and requires at least 90% disintegration after 12 weeks, 90% biodegradation in six months and includes tests on ecotoxicity and heavy metal content. EN 14995 describes the same requirements and tests and applies to plastics in general. Complete biodegradation occurs when none of the original polymer remains. Conditions required for biodegradation are not always met in the natural environment and those needed for rapid biodegradation rarely occur. For example, some need prolonged temperatures above 50°C. This means if biodegradable plastics enter the natural environment, they will often pose the same dangers to fauna and flora as non-biodegradables.

**Close-loop refillable packaging:** Packaging designed to be collected by the producer for reuse in a close-loop system, similar to the traditional 'milkman' model where empties are picked up, washed, refilled and restocked for delivery to another customer.

**Compostable plastics:** Compostable plastics are a subset of biodegradable plastics that biodegrade within the conditions and timeframe of the composting process. EN 13432 defines industrially compostable packaging materials as those with the following characteristics:

- disintegration – the packaging sample is mixed with organic waste and maintained under test scale composting conditions for 12 weeks, after which time

no more than 10 % of material fragments are allowed be larger than 2mm;

- biodegradability – a measure of the actual metabolic, microbial conversion, under composting conditions, of the packaging sample into water, carbon dioxide and new cell biomass. Within a maximum of six months, biodegradation of the test sample must generate an amount of carbon dioxide at least 90% as much as that given off from the control/reference material;
- absence of any negative effect on the composting process;
- low levels of heavy metals (Potentially Toxic Elements) and no adverse effect of the quality of compost produced. Upper limits, in mg/kg of dry sample, are: zinc 150, copper 50, nickel 25, cadmium 0.5, lead 50, mercury 0.5, chromium 50, molybdenum 1, selenium 0.75, arsenic 5 and fluoride 100;
- the composted packaging material must not have adverse effect on the bulk density, pH, salinity (electrical conductivity), volatile solids, total nitrogen, total phosphorus, total magnesium, total potassium and ammonium nitrogen characteristics of the compost.

Home compostable materials must be treatable at ambient temperatures. The timeframes for biodegradation and disintegration can be longer. Parameters such as moisture content, aeration, pH and carbon to nitrogen ratio do not need controlling.

**Ecodesign** is an approach to designing products with special consideration for the environmental impacts of the product during its whole lifecycle. Examples with relevance to marine plastic pollution may include connecting caps to bottles, replacement of plastic cotton bud stems with paper stems, material substitution and securing of cutlery for on-the-go food, elimination of plastics from sanitary waste and wet wipes, trials of alternative materials for convenience food packaging etc.

**Fisheries-related plastic waste:** Plastics related to fishing activities, which can include abandoned, lost and discarded fishing gear, catch and bait boxes. Examples of best practice relevant to fishing gear can be found within the Global Ghost Gear's Initiative Best Practice Framework for the Management of Fishing Gear on the GGGI website.

**Oxo-degradable plastics** are conventional petroleum-derived plastics that contain additives (pro-oxidants) to induce degradation under certain conditions (light and temperature, in particular). However, oxo-degradable materials only disintegrate (i.e. break down), with no chemical conversion taking place. This means they are not biodegradable at all. There is little to no evidence that oxo-degradables are able to biodegrade any faster

than conventional plastics and they may even add to the problem by increasing the rate at which microplastics are produced.

**Pre-production plastic pellets:** Pre-production pellets, flakes and powders (hereafter referred to collectively as pellets) are the raw materials for virtually all plastic products. Also known as 'nurdles', plastic pellets are the second largest source of direct microplastic pollution. When handled irresponsibly by polymer producers, transporters, recyclers or converters, they reach drains and rivers and, eventually, the sea. Data collected by members of the European Coalition to End Plastic Pellet Loss shows that pellets contaminate the coastline of every European country where monitoring has taken place. A 'supply chain' approach would be one whereby those placing plastics on the UK (or international) market would be obliged to ensure their entire demonstrates best practice in the prevention of pellet loss, verified through independent audits.

**Packaging unit:** A packaging unit is considered to be a single packaging container in which a standard product will fit. This is different from a component; a single unit can comprise multiple components. For example, a single bottle of milk or water, a single ready meal tray etc. Items collated in multipacks should be counted as individual units.

**Primary packaging:** Packaging that contains the finished or final products, also referred to as retail or consumer packaging. It includes all packaging at the point of sale which is ultimately disposed of by the end-user via reuse, recycling, landfill or other routes.

**Recyclable packaging:** Packaging that is widely recyclable within current infrastructure across the UK. Where possible, packaging should be recycled into applications with the same level of quality.

**Reusable packaging:** Packaging which has been designed to be refilled or used for the same purpose within a system for reuse.

**Secondary packaging:** Packaging additional to the primary packaging used to protect and collate individual units during storage, transport and distribution. Examples include packaging made to display multiple primary product units on the shelf and may also be referred to as shelf-ready packaging.

**Single-use plastic packaging:** Any plastic packaging intended for one-time use. Examples include plastic bags, sachets, bottles, food, drink and non-food packaging designed to be used only once and then disposed of. This includes recyclable packaging.

**Tertiary packaging:** Outer packaging, including pallets, stretch wrap, strapping etc used for the shipment and distribution of goods, also referred to as transport or transit packaging.

# References

1. Law, K.L., Starr, N., Siegler, T.R., Jambeck, J.R., Mallos, N.J. & Leonard, G.H., 2020. The United States' contribution of plastic waste to land and ocean. *Science Advances*, 6 (44). [Available here](#).
2. International Energy Agency, 2020. The Future of Petrochemicals: Towards a more sustainable chemical industry. [Available here](#).
3. Carbon Tracker Initiative, 2020. The Future's Not in Plastics, Why plastics demand wont save the oil sector (2020). [Available here](#).
4. Geyer, R., Jambeck, J. R., & Law, K. L., 2017. Production, use, and fate of all plastics ever made. *Science Advances*, 3(7), 7. [Available here](#).
5. Carbon Tracker Initiative, 2020. The Future's Not in Plastics, Why plastics demand wont save the oil sector (2020). [Available here](#).
6. Law, K. L., Starr, N., Siegler, T. R., Jambeck, J. R., Mallos, N. J., & Leonard, G. H., 2020. The United States' contribution of plastic waste to land and ocean. *Science Advances*, 6 (44). [Available here](#).
7. Systemiq and Pew Charitable Trust, 2020. Breaking the Plastic Wave, Breaking the Plastic Wave: a comprehensive assessment of pathways towards stopping ocean plastic pollution. [Available here](#).
8. Oceana, 2020. Choked, Strangled, Drowned: the plastics crisis unfolding in our oceans. [Available here](#).
9. Ellen MacArthur Foundation, 2017. The New Plastics Economy: Catalysing Action. [Available here](#).
10. The Nielsen Company, 2020.
11. Break Free From Plastic, 2020. Global Brand Audit Report 2020. [Available here](#).
12. Changing Markets Foundation, 2020. Talking Trash: the corporate playbook of false solutions to the plastic crisis. [Available here](#).
13. Changing Markets Foundation, 2020. Talking Trash: the corporate playbook of false solutions to the plastic crisis. [Available here](#).
14. BBC, 2019. M&S defends Little Shop toy giveaway despite backlash. [Available here](#).
15. Greenpeace, 2020. Unpacked: How to Cut Supermarket Plastic in Half by 2025. [Available here](#).
16. In 2019 there were 27.8 million households in the UK. Source: Office for National Statistics, 2020. [Available here](#).
17. Department for Food, Environment and Rural Affairs (DEFRA), 2020. Plastic Carrier Bag Sales Slashed Plastic carrier bag sales slashed by more than 95% since 5p charge introduced. [Available here](#).
18. Greenpeace, 2020. Unpacked: How to Cut Supermarket Plastic in Half by 2025. [Available here](#).
19. ASDA, 2020. Asda Opens New Sustainability Store. [Available here](#).
20. The Grocer, 2020. Asda has turned Middleton branch into a 'sustainability store' to trial greener options. [Available here](#).
21. OPRL, 2020. [Available here](#).
22. The Guardian, 2019. Plastic Recycling is a Myth. [Available here](#).
23. UK Government. Policy paper: Plastic packaging tax, 2020. [Available here](#).
24. Financial Times, 2020. Tesco to create 16,000 permanent jobs to bolster online business. [Available here](#).

