Greenpeace UK briefing paper:

Setting targets on reusable packaging in grocery retail

GREENPEACE

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Report prepared by Catherine Conway
Additional research by Chloe Brown
Unpackaged Innovation Ltd.

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INTRODUCTION

This briefing paper has been written for UK-based retailers and fast-moving consumer goods (FMCG) companies to assist in the setting of ambitious targets for reusable packaging.

In order to assess how reduce and reuse models could work at scale in the UK, Greenpeace commissioned sustainability advisors 3Keel to run a series of workshops with UK supermarkets and FMCG companies during 2019.

This led to Greenpeace and 3Keel being offered access to one year of sales data by a leading UK retailer. This confidential information was scaled up by 3Keel to construct an indicative baseline for the UK as a whole. The figures were then 'triangulated' with separate, third-party sources (from trade associations, for example) to create a dataset that is broadly representative of the sector as a whole. Although the data set was not granular down to individual products, it provides a unique supermarket-wide view which demonstrates the 'hotspot' categories of single-use plastics being placed on the market.

This led to Greenpeace's UNPACKED report, published in August 2020, which showed the first UK-wide view of the volumes of single-use plastic packaging placed on the market, and provided supermarkets with priorities to focus on, in order to reduce their single-use plastic packaging footprint by at least 50% by 2025. 50% refers to an average reduction across the three metrics of weight, sales units and components.

To continue this work, Greenpeace commissioned zero waste advisors Unpackaged to use the best available data to illustrate what specific targets on reuse could look like.

EXECUTIVE SUMMARY

This briefing paper shows that to achieve a reduction of at least 50% in single-use plastic packaging, companies need to set ambitious targets for both reusable consumer packaging and transit packaging:

- **At least 25% of consumer packaging should be reusable by 2025, increasing to 50% by 2030.**
- **At least 75% of transit packaging should be reusable by 2025, increasing to 90% by 2030.**

We show that it is key to separate out transit packaging into a separate target to avoid companies being able to meet their consumer reusable packaging target with transit packaging alone – developing reusable consumer packaging is key to eliminating unnecessary single-use plastic packaging.

Whilst there are other sectors where large reductions could also be achieved, such as food-to-go and events catering, these are outside of the scope of this report.

DEFINING REUSABLE PACKAGING

Packaging is commonly divided into three key areas:[1]

- **Primary packaging:** Packaging that contains the finished or final products, sometimes called retail or consumer packaging and often made of multiple components. This packaging is used to contain, preserve, protect and inform the end user.
- **Secondary packaging:** Packaging additional to the primary packaging that is used to protect and collate individual units during storage, transport and distribution. Includes retail-ready packaging (RRP), shelf-ready packaging (SRP) or promotional items such as counter-top display units (CDUs).
- **Tertiary packaging:** Outer packaging, including pallets, roll cages, dollies, slip sheets, stretch wrap, strapping and labels used for the shipment and distribution of goods.

In this paper we will refer to 'transit packaging' as a combination of secondary and tertiary packaging.

Reusable packaging

Reusable packaging exists across primary, secondary and tertiary packaging and is defined by packaging that is refilled or used for the same purpose for which it was conceived, in its original form, with no additional reprocessing needed except for cleaning. Reusable packaging is designed to accomplish a minimum number of trips, or rotations, in a system designed for reuse. A reuse system is defined as established arrangements (organisational, technical or financial) which ensure the possibility of reuse (in a closed-loop, open-loop or hybrid system). Work still needs to be done on more detailed definitions for reusable packaging in the consumer sphere, but the following sub-categories are a useful starting point:

Reusable consumer packaging[2]

Primary packaging in four key formats:

- **Refill at home:** Users refill a reusable container at home (e.g. refills delivered via a subscription service); the container is owned by the customer.
- **Return from home:** Reusable containers are collected from home by a pick-up service (e.g. a logistics company) and refilled; the container can be owned by the customer or rented from the company.
- **Refill on the go:** Users refill their reusable container away from home (e.g. an in-store dispensing system); the container can be owned by the customer or rented from the company.
- **Return on the go:** Users return reusable containers at a store or drop-off point (e.g. in a deposit return machine or a drop box); the container can be owned by the customer or rented from the company.

NB: Naked/packaging-free products (e.g. a loose shampoo bar) are not included in this framework.

Reusable transit packaging

- Secondary and tertiary packaging designed for reuse within a supply chain, constructed for multiple trips and extended life, in a closed-loop business to business (B2B) system.

THE SIZE OF THE PROBLEM

As has been well-documented, the use of plastic as a disposable material has environmental consequences at all stages of its life-cycle: from production to use to disposal. The negative effects of plastic pollution are all too visible in our oceans, across societies and are increasingly shown to have serious negative consequences for human health.

The global production and consumption of plastics has increased exponentially in the last 50 years, from 15 million tonnes in 1964 to more than 300 million tonnes today, and is predicted to double in the next twenty years. The industry sector with the highest demand for plastics as a raw material is packaging, consuming 26% of the volume of plastics produced.[3] In addition, the European Commission estimates that global plastic production and disposal emits 400 million tonnes of carbon dioxide annually.[4] This is not consistent with a global net zero target by 2050, nor with a 1.5ºC warming scenario.

The 2019 Greenpeace research calculated the true scale of the annual UK supermarket single-use plastic packaging footprint:

- 56.5 billion individual sales units.
- 114 billion packaging components.
- 653,000 tonnes in weight.

NB: It should be noted that this only includes consumer packaging. It does not include the significant amount of carrier bags (single-use and bags for life) or transit packaging (secondary and tertiary) in the supply chain.

It is clear that a 'business as usual' scenario based on recycling – which has been the focus of many corporate commitments to date – simply cannot provide the core solution. We need a bolder approach that focuses squarely on reduction and reuse, and enables recycling systems to focus on tackling what is left over.

CONSUMER DEMAND

Even with the additional challenges presented by the Covid-19 pandemic, there is still clear demand from the public for solutions to the problem of single-use plastic packaging:

- A recent poll showed that 47% of customers said that they are willing to pay more for a product if the packaging has less of an environmental impact, and 55% have become 'more concerned' about the environment as a result of Covid-19.[5]
- Mintel recently concluded "the companies that will 'win' over the next 10 years will be those that fuel this new era of conscious consumption. Tomorrow's consumers will actively seek out environmentally responsible packaging and aggressively reward brands that help them understand what is actually better, rather than what is 'less bad'."[6]

RATIONALE FOR INTRODUCING TARGETS FOR REUSABLES

Despite the challenges presented by a Covid-19 'new normal', there remains a clear business case for introducing corporate targets for reuse:

- The Ellen MacArthur Foundation (EMF) estimates that converting 20% of current single-use plastic packaging to reusables already presents an economically attractive proposition worth at least ten billion USD.[7]
- Reuse offers "improved user experience, customisable products, the ability to gather customer insight and build brand loyalty, as well as cost savings and optimised operations."[8]
- Reuse is the new sustainability battleground – the public expect businesses to lead by giving them options to shop sustainably; those that don't will lose out to their competitors.
- There is a clear direction of travel from governments (of all persuasions) to impose a 'polluter pays' legislative framework aimed at reduction, reuse and full cost recovery – there simply isn't enough in the public purse for businesses to continue to not pay their fair share of waste management costs.
- Despite the initial investment, there are clear cost savings, and other supply chain benefits, to be gained by implementing reusable packaging.
- Pollution from plastics and single-use plastic packaging is choking our marine and land environments and there is no business resilient enough to survive ecosystem collapse.

A CIRCULAR ECONOMY SOLUTION FOR PACKAGING

Amongst progressive businesses, governments and NGOs, there is now consensus on the importance of moving our economy from the current linear 'take, make, dispose' model to a circular economy that decouples economic activity from the consumption of finite resources and designs waste out of the system.

The elimination of unnecessary single-use plastic packaging should remain the priority focus in the transition to a circular economy. Where this is not possible, three main strategies have been identified[9] to improve the current single-use plastic packaging crisis:

- Reuse.
- Fundamental redesign and innovation.
- Recycling with radically improved economics and quality.

A circular economy for packaging focuses on maximising resource value by keeping materials in a cycle for as long as possible to mitigate the environmental impacts associated with production, consumption and disposal.

- It is the best example of the extended producer responsibility (EPR) framework due to be implemented in 2023.
- Additional UK research conducted in 2019 showed that "using and losing fewer resources in production processes... in just five key sectors (construction, vehicles, electrical equipment, clothing and textiles, and food) could reduce emissions by nearly 200 MtCO2e by 2032... [which] would help the UK to meet its long-term carbon reduction targets."[10]
- The European Commission conducted a lifecycle

assessment comparing greenhouse gas and air pollutant emissions from single-use plastics with reusable alternatives and, for the food and drink packaging items, found clear benefits from the reusable alternatives across multiple metrics.[11]

The benefits of a circular economy for packaging are not solely environmental:

- **For business:** For reusable 'business to consumer' (B2C) primary packaging "industrial processes would 'put less in' to products in the first place… [and] better pack design and new businesses models would allow consumers to 'get more out' of fewer resources. Overall material use and waste could be halved".[12] Whereas reusable (B2B) transit packaging has additional supply chain benefits such as reduced touch points, damage and less waste disposal requirement for retailers.
- **For society:** Reusable systems could aid the green recovery to 'build back better' as secondary businesses are created around a modern resource (rather than waste) management industry. Reuse and repair activities in the UK already support nearly four times more jobs than waste management[13] and "a transformative approach to the circular economy could drive growth, creating over half a million new jobs in Britain, at all skill levels and especially in areas like the North East and West Midlands where unemployment is highest."[14]

Defining how reusable packaging could work for FMCG products (given their inherent nature as cheap and disposable) has proved challenging. However, as public desire grows for solutions to the problem of single-use plastic packaging, a raft of forward thinking businesses are developing innovative reusable packaging solutions and starting to show how non-disposable packaging could work in mainstream environments.

GLOBAL MOMENTUM FOR REUSE

Through the EMF's New Plastics Economy Global Commitment, more than 350 organisations have signed up to the vision of building a circular economy for plastics, explicitly acknowledging that we cannot simply recycle our way out of this issue, and that rethinking how we bring products to people without disposable packaging is a crucial part of the solution.

The core aims of the Global Commitment have been adopted by multiple governments around the world (often in the form of a 'Plastics Pact'[15] style voluntary agreement) and seen over 100 businesses sign up to move from single-use to reusable packaging by 2025.

THE UK POLICY FRAMEWORK

Any move towards reuse needs to be set within the necessary conditions to create a level playing field for all retailers and FMCG companies:

1. **Pro-reuse legislation**
   - The Environment Bill should set legally-binding targets to reduce single-use plastics by 50% by 2025. This will send a signal to industry of a new direction of travel and create a level playing field for everyone in the supply chain.
   - Extended Producer Responsibility (EPR) should be designed in such a way as to drive reduction, reuse and better product design, as well as achieving full cost recovery. Reforming EPR to make the whole supply chain financially responsible for the full environmental impact of the plastic it produces would make manufacturers, brands and retailers more likely to invest in reuse solutions. This should include responsibility for upstream impacts, such as pollution from the pellets used in plastic production.

2. **Political support for reuse:** The right government support is needed to stimulate growth in reuse by developing policies to incentivise (and standardise) reuse schemes across all sectors and safeguard the investment and commitment needed by businesses throughout the supply chain to invest in reuse-based systems.

3. **Financial support for reuse infrastructure:** Currently the UK lacks the infrastructure needed to support a circular economy, so funding for infrastructure provision must be prioritised as part of the government's Industrial Strategy. The government already provides support to businesses through Enhanced Capital Allowance (ECA) schemes to shift to more energy and water-efficient technologies. The ECA scheme – or indeed other incentives – could be used to assist companies with investments in plant and machinery for reuse applications.

4. **Mandatory reporting**: The Environment Bill should introduce mandatory corporate reporting on plastic reduction in order to create a level playing field for all sections of the grocery industry.

INTERNATIONAL GOVERNMENT LEGISLATION

In addition to waste reduction targets, national and regional governments are starting to introduce legislation focused specifically on reuse. Whilst this is only a small number at the moment, we expect it to become an increasingly popular tool to drive change, one that all companies should be looking to get out in front of.

Highlights include:

- **Romania:**[16] [17] From 1st January 2020, businesses that put packaged goods on the market must demonstrate an annual average of 5% reusable packaging across all packaging formats, increasing by 5% per annum until reaching a minimum of 25% by 2025. Retailers will be required to give their customers the opportunity to choose reusable packaging and return it to the store. There are exemptions for small businesses.
- **Spain, Navarra:**[18] [19] A 2018 regional law requires businesses in HORECA (the hotel, retail and catering sector) to serve 80% of beer, 70% of soft drinks and 40% of bottled water in reusable containers by 2028. 15% of beverage containers sold in shops must be reusable by then too.
- **Spain, Balearic Islands:**[20] [21] By 2030, the HORECA industry must achieve an 80% reuse rate for beer, 70% for soft drinks and 50% for bottled water. 15% of consumer retail soft drinks must be sold in reusable packaging by the same date.
- **France:**[22] A law introduced in 2020 aims to increase the proportion of reusable packaging on the market to 5% by 2023, 10% by 2027. The reusable containers must also be recyclable at the end of life.
- **Germany:**[23] A target of 80% reusable beverage packaging but there are issues with implementation and enforcement.

In addition, the European Commission has committed to reviewing its Packaging Directive to reinforce mandatory requirements, including driving design for reuse and potential restrictions on some packaging where there are no reusable alternatives.[24]

RETAILER AND MANUFACTURER ACTION ON REUSABLES

Recent years have seen most large companies set voluntary commitments to reduce virgin plastic consumption and increase the recycled content and recyclability of packaging materials, mostly under a commitment of "all plastic packaging to be 100% reusable, recyclable, or compostable by 2025". This requires redesign and innovation in business models, materials, packaging design and reprocessing technologies. The EMF Global Commitment has led on advocating short timeframes to galvanise action.

As the EMF states: "Any virgin reduction target should focus... on both eliminating the plastics we don't need through innovation and reuse, and increasing recycled content for those plastics we do need."[25]

However, most companies have not invested sufficiently in reusable solutions, set any clear targets or publicised any progress:

- Of the UK retailers that we looked at, all fourteen had at least one reuse trial in progress (this includes action on plastic carrier bags) but only two (Morrisons and Lidl) have specific reuse targets that have been publicly shared.
- Whilst most have signed the EMF commitment to achieve "100% reusable, recyclable or compostable packaging by 2025", less than half explicitly expressed an ambition to investigate, invest in or trial reusable packaging.
- Of the sixteen global FMCG companies we looked at, again only one (Mars) had a specific reuse target and, again, less than half expressed an ambition to explore reusable packaging.
- The most recent EMF Global Commitment Progress (2019) report showed the share of reusable packaging in members' portfolios was a paltry 3%, although 43 signatories have active reuse model pilots.[26]

UK RETAIL HIGHLIGHTS

- Morrison's was the only retailer with a reuse target "to double reuse/refill transactions" (although it is not mentioned in their own publications)[27] until this month, when Lidl introduced a similar target to "double the number of refillable and reusable packaging solutions available in stores by 2021".[28]
- Two other retailers have reuse as a general

ambition, but no specific reuse target (Marks & Spencer "want to help our customers reuse items again and again" and Sainsburys is "investing in R&D to create alternatives to plastic as well as introduce refillable packaging.").

GLOBAL FMCG HIGHLIGHTS

- For FMCG companies, Mars stands out with their commitment to test at least ten reuse models.
- SC Johnson aims to increase its refill options, although these are mainly based on offering a concentrate to dilute with water at home (often incurring single-use plastic sachets).
- Danone, PepsiCo, Procter & Gamble and to a certain extent Henkel, all mention reuse in more detail in their strategies (beyond the 100% commitment detailed above).
- Many manufacturers barely publicise the trials they are running (e.g. Kellogg's refill trial with Asda, Unilever's refill trials for big brands like Tresemmé in South East Asia, Coca-Cola's bottle refills in Brazil) and the information is frequently hard to find.

This lack of communication on reuse activities, or setting clear targets, highlights that corporate commitments to move to reusable packaging are not anywhere close to where they need to be to tackle the single-use plastic packaging crisis in a meaningful way.

THE PRINCIPLES OF SETTING TARGETS ON REUSABLES

There are some clear principles that should be followed by any company setting targets on reuse:

Be ambitious: Targets must be ambitious to achieve a transformative effect on the industry.

Be specific: Within an overall framework of single-use plastic packaging reduction, targets should:

- Specifically focus on increasing reusable packaging.
- Be quantitative, with qualitative milestones as required (e.g. running trials).
- Set as a percentage of the total annual packaging put on the market in any given year (this gives a dual incentive to reduce the overall amount of packaging).
- Cover the company's global packaging portfolio.

Separate into consumer and transit packaging: To ensure that companies don't just meet their reusable consumer packaging targets with transit packaging alone, companies must set two parallel targets:

- A specific reusable consumer packaging target.
- A specific (higher) target for reusable transit packaging, reflecting the fact that there are plenty of proven, scaled, cost effective solutions for secondary and tertiary packaging.

Set short timeframes: Timeframes should be short enough to galvanise action with clear milestones for delivery, but realistic enough to reflect the need for infrastructure development to support reuse.

Be materials neutral: Targets must cover all single-use packaging units sold, regardless of the material, otherwise it could lead to a focus on substituting alternative single-use materials rather than the necessary focus on reuse.

Offer transparent reporting: Targets must be made public to ensure transparent reporting and public accountability.

Be independently verified: Progress against targets should be reported annually, as mandated in the Environment Bill.

OUR RECOMMENDED TARGET

To achieve a reduction of at least 50% in single-use plastic packaging by 2025, we believe that companies need to set ambitious targets.

	2025	2030
Reusable consumer packaging	25%	50%
Reusable transit packaging	75%	90%

Whilst the data on which we have modelled these targets needs more work, it is clear that a high level of ambition from companies is needed to shift the dial on the single-use plastic packaging crisis. We provide further explanation of our calculations and our rationale below.

CONSUMER PACKAGING MODELLING

This table represents Greenpeace estimates, based on the original data gathering exercise carried out by 3Keel further developed by Unpackaged.

	Sales units (each)	Components (each)	Weight (tonnes)
UK supermarket consumer single-use plastic packaging footprint 2019-2020	56.5 billion	114 billion	653,000
Amount of total current footprint to be switched to reuse and refill (to achieve overall 50% GP reduction target)*	22.8 billion	49.9 billion	330,708
Approx. % of total current footprint that has to switch to reuse/refill.	40%	44%	51%

*The 50% reduction is an average figure based on a reduction of 50.7% on sales units, 53.6% on total components and 59.6% on weight. These exact percentage reductions are reflected in the figures.

OUR CALCULATIONS

The original 3Keel exercise analysed 54 different retail product categories for amounts of single-use plastic packaging calculated through the three most relevant lenses: weight, sales units and number of plastic components. 3Keel then cross referenced each product category against a list of proven reuse-based systems and packaging reduction techniques, to assess how much single-use plastic packaging could be eliminated from each category. Using this information, reduction targets were assigned to each product category, based on 'reduction potential'. Unpackaged built on this original work and calculated what proportion of the single-use plastic packaging footprint needed to be switched to reuse and refill to achieve the overall 50% reduction.

Based on existing reuse-based systems and packaging reduction techniques for each product category, it is forecast that the following reduction needs to be switched to refill and reuse (rather than by elimination):

- Sales units: 22,8 billion
- Components: 49.9 billion
- Weight: 330,708 tonnes

This represents the following proportion of the 2019-2020 single-use plastic packaging footprint:

- Sales units: 22.8 billion = 40% of current total unit sales.
- Components: 49.9 billion = 44% of current total number of components.
- Weight: 330,708 tonnes = 51% of current total weight.

Depending on which lens we use (units, components, weight), we can see that between 40% and 51% of the total amount of single-use plastic packaging currently on the market needs to switch to reuse if we are to achieve an overall 50% reduction in single-use plastic packaging.

By cross referencing this analysis with the research gathered through our UK and global research, and the cited need for both supportive government policy and infrastructure investment, we believe that an ambitious overall target should be at least 50% by 2030, with a stepped target of at least 25% by 2025.

Greenpeace understands that a move from single-use to reusable packaging represents a massive shift for consumers and businesses alike – it is complex, and reusable packaging systems are in their infancy. Our initial analysis shows that companies must set ambitious targets if we are to solve the single-use plastic packaging crisis but we expect the market to be extremely dynamic, as brands and retailers innovate and invest. As such, this target will be kept under constant review.

NOTES ON CONSUMER PACKAGING MODELLING

To date, the information we used for our modelling has been neither systematically collected by companies for their internal use or made available for external analysis. We have made the best use of the available data, but recognise that it needs further detailed analysis which can only be done if key stakeholders report information transparently.

It should also be noted that we have focused on the removal of single-use plastic packaging items but any substitute reusable system will have an impact that must be considered over its entire life cycle. Reusable containers must be durable and made of the most sustainable materials (e.g. made of the highest percentage of recycled material and wholly recyclable at end of life) and managed correctly in the most sustainable system. This systems-thinking approach must be a key part of the development of any reusable system.

TRANSIT PACKAGING MODELLING

There is even less detailed data available for UK supermarket transit packaging from which to define a target and transit packaging was not included in the original 3Keel data exercise.

The total footprint of the transit packaging used by UK grocery retailers was calculated by WRAP as 830,000 tonnes in 2017[29] but this gives no indication of splits between different types of transit packaging and what percentage might already be reusable. We consulted industry experts who estimate:

For secondary packaging:

- It's currently impossible to estimate the overall volume and percentage of reusable secondary packaging crates in circulation.

For tertiary packaging:

- Dollies, roll-cages etc. are almost all reusable.
- Pallets – almost all are reusable.
- Load stability materials (stretch and shrink wrap etc.) – almost nothing is reusable and very little is recycled.

Most supermarkets do not report usage rates of transit packaging. We were able to sample a small amount of anonymised data provided by ten retailers as part of the submission for Greenpeace and EIA's 2019 report 'Checking Out On Plastics II', in which we saw:

- Usage rates of reusable secondary packaging by individual retailers reach 76%.
- Usage rates of reusable tertiary packaging by individual retailers reach 91%.
- The categories with the highest usage of reusable secondary packaging are produce (fruit and vegetables), dairy and meat, followed by bakery and horticulture.
- The number of 'journeys' of individual transit packaging assets (e.g. crates) used by individual UK grocery retailers ranges from 1.5 million to over 220 million annually – showing a significant number in use already.

But, despite many supermarkets telling us that they are actively moving products from single-use transit packaging to reusables, most retailers said that accurate data was unavailable. This shows an unacceptable lack of priority being placed on truly integrating reusables in the supply chain which is why an explicit additional transit packaging target is necessary.

Our research and evidence gathering from across the globe shows that it is key to separate out transit packaging into a separate target to avoid companies being able to meet consumer packaging targets with transit packaging alone. And (notwithstanding the challenges of global trade) it should be relatively easier to achieve due to the B2B closed loop nature of the supply chain.

Given the high level of reusable transit packaging used by some retailers, our initial estimate is that the target for reusable transit packaging should be set significantly higher than that for consumer packaging at 75%. This could contribute to a reduction of three quarters by 2025 which would represent a massive reduction in single-use packaging rarely seen by the consumer but still a large contributor to the single-use packaging crisis.

CONCLUSION AND NEXT STEPS

This briefing paper clearly shows the need for UK retailers and FMCG companies to set ambitious targets for reusable consumer and transit packaging, within a framework of supportive government regulation.

Greenpeace recognises that shifting from a throwaway culture to a reuse-based system is no easy task, but we need this level of ambition if we are to collectively tackle our plastic pollution problem, protect our precious forests and oceans and reduce carbon emissions.

More work clearly needs to be done to answer certain technical questions – such as how best to measure different types of reusable packaging – but that work needs to start now, and needs to be taken on by the whole sector in order to succeed.

Greenpeace is urging companies to:

- In the first quarter of 2021 or sooner, make a public commitment that at least 25% of their consumer packaging and 75% of their transport packaging will be in reusable formats by 2025.
- Produce a roadmap that details how this shift will be achieved and proposes ambitious follow on targets for 2030.
- Collectively ask the government to introduce mandatory corporate reporting on plastic reduction, in order to create a level playing field for all sections of the grocery industry.
- Commit funding to reuse systems at scale.
- Work with industry partners to share lessons and drive sector wide change.
- Work together to request necessary legislative changes and funding support from government bodies.

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