REUSABLE PACKAGING ROUNDTABLES

A summary of the insights gathered from sector-specific roundtables which investigated the barriers and opportunities for category-focused collaboration to drive reuse.

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About WRAP

WRAP is a climate action NGO working around the globe to tackle the causes of the climate crisis and give the planet a sustainable future.

Our core purpose is to help you tackle climate change and protect our planet by changing the way things are produced, consumed, and disposed of.

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Executive summary

In late 2022, WRAP, in conjunction with reusable packaging experts Unpackaged, brought together members of The UK Plastics Pact to deliver a series of industry roundtables. The roundtables considered the barriers and opportunities for category-focused collaboration, with the aim of driving increased uptake of reusable packaging across a selection of high impact product categories. The following report summarises the insights and recommendations gathered through this rich, industry-focused series of dialogues.

The UK Plastics Pact brings together businesses from across the entire plastics value chain with UK governments and NGOs to create a circular economy and transform the way that the UK makes, uses and disposes of plastic. Members are working to deliver the following targets by 2025:

1. Eliminate problematic or unnecessary single-use packaging through redesign, innovation or alternative (reuse) delivery model.
2. 100% of plastics packaging to be reusable, recyclable or compostable.
3. 70% of plastics packaging effectively recycled or composted.
4. 30% average recycled content across all plastic packaging.

Reuse (pre-fill and refill) plays a pivotal role in reducing the impact of plastic packaging and shifting the focus to solutions that exist higher up the waste hierarchy. The ambition is set out in the Roadmap to 2025 which underpins the work of the Pact and sets out what needs to happen, by when and by who in order for the above targets to be met. The Roadmap includes three milestones specifically aimed at driving reusable packaging which aim to:

- increase the availability and visibility of reusable packaging through brand and retailer trials;
- increase citizen participation in reusable packaging systems; and
- make reuse a mainstream packaging choice, through the scaling and commercialisation of reusable packaging systems.

There are a number of challenges to deliver reuse at scale and currently the ambition is unlikely to be met. WRAP designed the Reusable Packaging Roundtable series to engage directly with Members to explore the barriers faced by businesses trying to implement trials and scale solutions and investigate the opportunities for cross-sector collaboration.

Facilitated by reuse experts, Unpackaged, the Reusable Packaging Roundtables were designed thematically, to enable Members from the same sector to come together. Each Roundtable lasted on average two hours and was designed as a confidential pre-competitive space, conducted under Chatham House rules. This format enabled participants to openly share the challenges and successes of their reusable packaging initiatives.

Participants represented a mix of UK Plastics Pact Members across five target sectors, with varying degrees of engagement in reusable packaging. The Retailer Roundtable was held in-person, while the category-specific sessions (Dairy, Frozen Food, Household & Personal Care and Soft Drinks) were hosted virtually.

The insights gathered from the Roundtables illustrated the complexity of the change required to meet the Pact's objective of making packaging reuse and refill systems part of the mainstream shopping experience for citizens.

Key themes emerging from discussions have been grouped as follows:

- **Technical**: reusable packaging design, equipment and infrastructure;
- **Commercial**: the business case and the current trading environment;
- **Engagement and collaboration**: citizens, brands & retailers; supply chain;
- **System Design**: standardisation, the role of deposits;
- **Information**: the guidance required;
- **Regulation**: food safety, hygiene and Competition Law;
- **Legislation**: targets, Extended Producer Responsibility (EPR), Deposit Return System (DRS).

The sector specific insights show how businesses in different areas of the reusable packaging value chain face challenges which are unique to their sector. If we are to create the paradigm shift that is required to embed reusable packaging systems in the UK marketplace, collaborative pathways will be required to scale solutions and mitigate the costs associated with independent reusable packaging initiatives.

Leadership is emerging among some of the Pact Members but challenges exist for the broader membership in achieving the reusable packaging objectives set out in the Roadmap.

This report provides analysis of the key challenges which are summarised below:

- Limited access for citizens to purchase reusable packaging;
- Limited visibility of successful reusable packaging systems for businesses, including metrics and cost models;
- Reticence by some members to share specifics of trials to date;
- Limited access to sector-specific reusable packaging data sources (e.g.: HoReCa, Secondary / Tertiary packaging, etc.) to support the business case development for reusable packaging systems within particular sectors;
- Current regulatory settings which can discourage reusable packaging system development and adoption.

To stimulate renewed action on reuse among Pact Members, a number of recommendations have been produced which are summarised below and discussed further in the report:

1. **Engage with government** on the key questions of regulation, legislation, EPR and DRS outlined in this report.

2. **Collaborate** with other organisations in the reusable packaging chain to develop:
   a) the vision for what a shared reuse infrastructure for the UK could look like;
   b) an agreed methodology to record and measure reuse data in order to demonstrate the impact of reuse; and
   c) sector specific washing standards for reusable consumer packaging.

3. **Create** a pre-competitive space in which Members can:
   - Share full learnings from trials openly to enable good, long-term, decision-making based on real data and evidence.
   - Share innovation risk through collaborative cross-supply chain projects to develop scalable reuse solutions.

4. **Continue to develop** the research and guidance needed by Members (outlined above), and signpost relevant resources for reuse, such as Planet Reuse and The Reuse Portal.

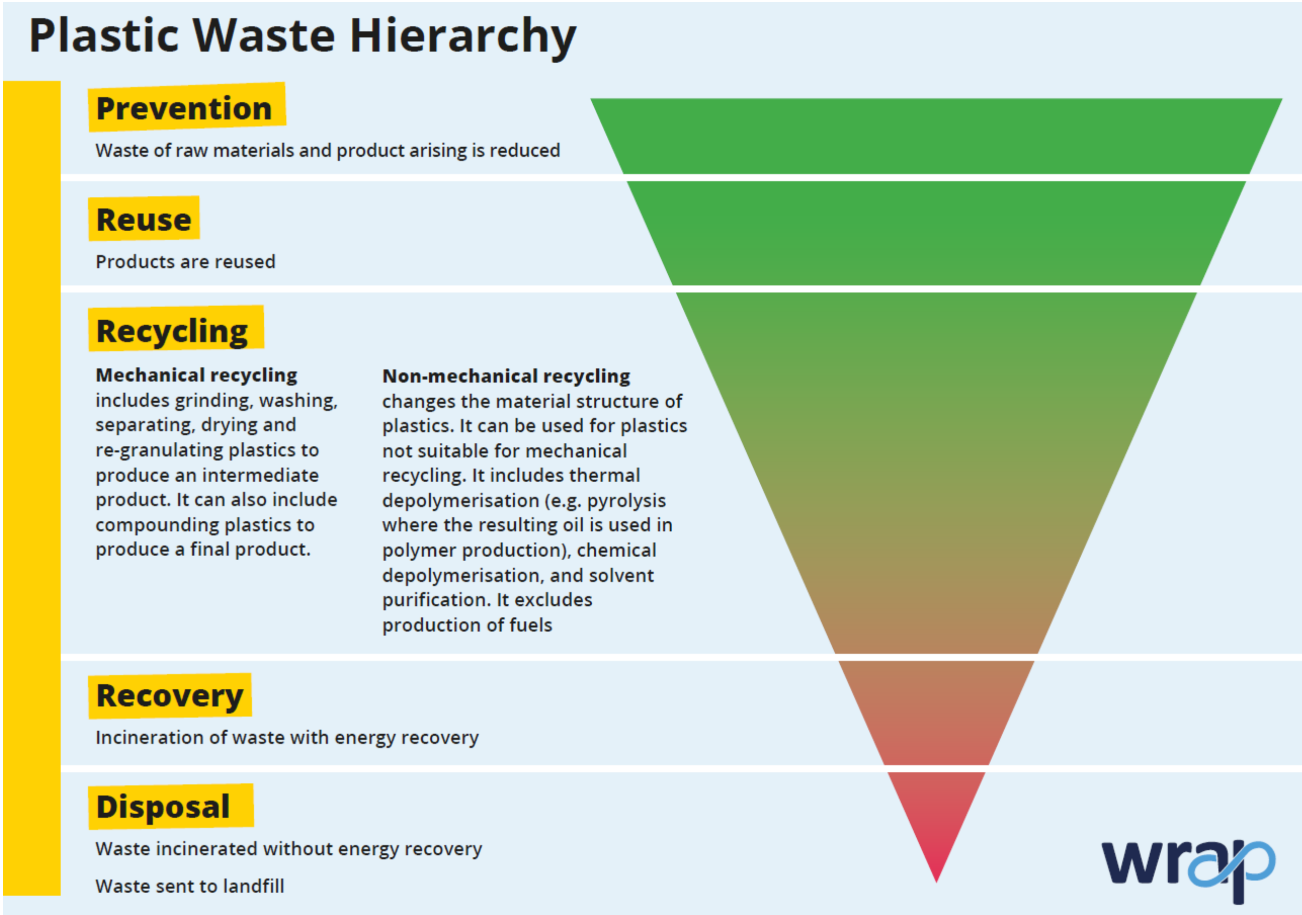
5. **Engage with Competition and Markets Authority (CMA)** regarding changes to UK Competition Law, to encourage the easing of competition law restrictions to enable enhanced collaboration to deliver environmentally beneficial initiatives.

6. **Explore public reporting** on progress towards the milestone targets and uptake of reuse/refill systems by members.

Contents

1.0 The UK Plastics Pact and Reuse

Reuse (pre-fill and refill) plays a pivotal role in reducing the impact of plastic packaging and shifting the focus to solutions that exist higher up the waste hierarchy, as demonstrated in the diagram below.



The ambition for reuse is set out in the Roadmap to 2025 which underpins the work of the Pact and sets out what needs to happen, by when and by who in order for the Pact targets to be met. The Roadmap includes three milestones, as detailed in Annex 1 of this report, specifically aimed at driving reusable packaging which aim to:

- increase the availability and visibility of reusable packaging through brand and retailer trials;
- increase citizen participation in reusable packaging systems; and
- make reuse a mainstream packaging choice, through the scaling and commercialisation of reusable packaging systems.

To contribute towards Target 2, reusable packaging must be designed for reuse; have an effective reuse and refill system in place and be labelled accordingly. This requires systemic shifts in the value chain and, although some progress has been made by Members, there is still greater commitment needed to truly scale reuse and measure its impact.

Businesses recognise the need to build on individual trials and collaborate to minimise operational costs and to achieve economies of scale and standardisation across common system elements as this will maintain an affordable product offering for the consumer. This, coupled with the three key pillars of ease of use, citizen appeal and system accessibility, will be vital in unlocking the potential for reusable packaging, to enable wide-reaching citizen engagement and participation and transition reusable packaging to a mainstream audience.

Despite concerted efforts by some Members the reuse milestones are unlikely to be met by all retailers and brands. In an effort to understand and address the challenges that have emerged through the knowledge gathering of trials and pilots, WRAP engaged reusable packaging experts Unpackaged to facilitate a series of sector-specific roundtables (dairy, retail, frozen food, household & personal care, and soft drinks) to engage Members, explore barriers and look at the opportunities for category-focused collaboration across a range of high-impact product categories.

In order to create the paradigm shift required to embed reusable packaging systems in the UK marketplace, collaborative pathways are required to standardise and scale solutions and mitigate the costs associated with independent reusable packaging initiatives.

2.0 Reuse Roundtables

2.1. Aims and Objectives of the Project

The UK Plastics Pact Roadmap milestones are designed to achieve the overall outcome of making reuse mainstream by 2025. To help overcome the challenges experienced by Members in meeting the milestones, WRAP designed the Reuse Roundtable Series to:

- engage directly with Members;
- explore the barriers faced by businesses trying to implement both trials and scaled solutions;
- explore the opportunities for cross-sector collaboration;
- accelerate action on reusable packaging system development.

In the context of this report, the term "reuse" is aligned with the Ellen MacArthur Foundation's (EMF) refill and return model and includes all four aspects of reuse:

- Refill at Home
- Refill on-the-go
- Return from Home
- Return on-the-go

Figure 1 - The Four Models of Reuse (EMF 2019, Reuse – rethinking packaging, p7)

Key insights gathered from the Roundtable Series and explored in this report, along with additional analysis provided by Unpackaged, will help WRAP to continue to work with UK Plastics Pact Members to deliver on the Roadmap objectives.

2.2. Project Execution

WRAP convened five Roundtables focussed specifically on reusable packaging systems, facilitated by Catherine Conway from Unpackaged[1].

The Reuse Roundtables were designed thematically to enable Members from the same sector to come together. Each Roundtable lasted on average two hours and were designed as a confidential pre-competitive space, conducted under Chatham House rules, to enable participants to openly share the challenges and successes of their reuse initiatives.

Participants represented a mix of UK Plastics Pact Members across five target sectors, with varying degrees of engagement in reusable packaging:

- Retail (face-to-face)
- Dairy (virtual)
- Frozen food (virtual)
- Household and personal care (virtual)
- Soft drinks (virtual)

Insights and recommendations from the Roundtable discussions are explored further in the following sections.

[1] www.beunpackaged.com

3.0 Key Insights

Insights gathered during the course of the Roundtables are arranged thematically in this report, to be used as a reference point when addressing the complexities associated with the transition from single-use to reuse. Additional sector-specific insights are included in Section 4.

The key overarching insights are grouped as follows and expanded below:

- **Technical**: reusable packaging design, equipment and infrastructure;
- **Commercial**: the business case and the current trading environment;
- **Engagement and collaboration**: citizens, brands & retailers; supply chain;
- **System Design**: standardisation, the role of deposits;
- **Information**: guidance required;
- **Regulation**: food safety, hygiene and Competition Law;
- **Legislation**: targets, Extended Producer Responsibility (EPR), Deposit Return System (DRS).

Technical: Reusable Packaging Design Considerations

Reusable packaging must be designed to ensure there are no negative outcomes, for example:

- No overall increase in plastics placed on the market due to the increased mass of reusable packs (for example, the replacement of single use carrier bags with ‘bags for life’ has led to increased materials in the system). To achieve this, reusables must achieve a minimum number of rotations; be kept in the system and designed to ensure closed loop recycling at end of life.
- Not undermining recent innovations such as the introduction of tethered caps which are successful in reducing litter.

The correct materials need to be used for sensitive products (for example cosmetics or food contact) – see the new Reusability By Design guidelines from Recoup.

Reusable packaging requires a fundamental system change to the linear single-use packaging supply chain currently in operation.

Technical: Reuse Equipment

Most reuse equipment is new and untested in large scale settings, much having been developed by small start-up companies.

Both brand- and retailer-led trials report issues with in-store execution and these challenges must be addressed when planning future trials. Experiences included (but are not limited to):

  - Equipment jams
  - Excessive fill-times
  - Labelling / scanning difficulties

- Deposit handling

The in-store location of products in reusable packaging is also key. Research has highlighted conflicting insights in relation to the success rates of dedicated 'refill zones' versus in-aisle product placement (reusables next to their single-use equivalents). In-store positioning should continue to be tested and findings shared openly, to enrich the canon of knowledge on reusable packaging systems.

Technical: Reusable Packaging Infrastructure

Most reusable packaging trials have been launched independently by individual brands, usually in conjunction with a retail partner. The current lack of shared infrastructure to support reusable packaging (sorting, washing, filling, return logistics etc.) has resulted in significant cost to the participants, creating scenarios in which it is challenging to prove sufficient commercial viability to move to scale. At small scale, reverse logistics add significant costs into the model, showing the need to build shared UK infrastructure to deliver efficient reusable packaging systems, thereby mitigating the costs to individual businesses. This infrastructure includes collection points, cleaning facilities, filling lines and provides opportunities to build new business services, create employment and improve resource efficiency.

Potential risks were identified in relation to the impact of the rising costs of energy and chemicals on the commercial viability of reusable packaging systems, however, conversely, decentralisation trends emerging in the business landscape were highlighted as opportunities to support more localised collection, return and refill loops for reusable packaging.

Commercial: The Business Case

The challenge of creating a commercially viable business case for reuse was discussed in each of the Roundtables, uncovering similar challenges across Members.

Rather than a relatively simple extension, or adjustment to existing operations, reusable packaging presents a fundamental change in operations and requires a different, system-wide approach along the value chain, often requiring engagement with new and emerging technologies and supply chain businesses.

It is costly and resource intensive to run trials at scale. In some cases, businesses have subsidised the cost of trials to bring the retail price of the product in line with single-use alternatives, in an effort to eliminate price-related barriers for shoppers. In other trials, products have been offered at a premium price point, making them uncompetitive when compared with the single-use alternative. As a result, trials have generally failed to provide sufficiently compelling evidence to support a business case for investment and some have been deemed to be unviable when scrutinised through a commercial lens.

Commercial: The Current Trading Environment

Rising prices for fuel, energy and the cost of goods have restricted the capacity for businesses to invest in innovation. Furthermore, increased bureaucratic requirements for multi-national businesses, resulting from the UK's withdrawal from the European Union, has slowed internal processes more widely. These conditions have created a challenging trading environment that often deprioritises innovation in areas such as reuse. Additionally, global businesses must review a large range of categories and products, and account for multiple markets, adding further complexity and delays to progress.

General agreement across the Roundtables however reaffirmed that sustainability is still an important part of business goals, and reuse is a key focus despite the currently challenging market conditions.

Engagement: Citizens

Citizen desire is evident, but translating this intention into new shopper habits is challenging. There is currently a gap between what citizens say (intention) and what they do (action) when presented with reuse options.

As outlined earlier, price parity with single-use alternatives is a key requirement for shopper engagement. Businesses also seek evidence-based reassurance that citizens will adopt reuse, however proving the case is challenging given the current lack of choice that citizens have to purchase products in reusable packaging.

The following principles were identified as key requirements for increased citizen participation:

- **Convenience is key**: most consumers will not spend the extra time to purchase reusable products if the single-use alternative is cheaper and easier to purchase;
- **Shoppers prefer simplicity**: evidence from some trials shows that the most successful reuse systems focus on the simplicity of the customer journey, in some cases utilising digital technologies to help nudge shoppers to return empty packaging for reuse;
- **Costs to participate should not create a barrier to entry for shoppers**: high deposits have been flagged as a barrier for citizens to engage with "reuse at home/ on the go" models.

Engagement: Brands and Retailers

The Roundtables highlighted that the majority of retailers and brands are actively working to minimise unnecessary plastic use. Retailers are considered key to unlocking reuse at scale and Brands are keen to understand the level of retail interest in different types of reuse and refill systems. However, most reuse trials are still at 'proof of concept' stage which makes it difficult for retailers to understand the impacts (positive and negative) of reuse in any way to be able to feedback to brands.

A number of trials have demonstrated clear challenges in the return and cleaning of packaging, as well as the commercial models that underpin existing reuse systems.

There is an opportunity to increase both reusable transit (secondary and tertiary) and consumer-facing (primary) packaging. Proven, scaled and cost effective B2B solutions exist and additional focus on transit packaging could maximise the impact of reusable packaging systems along the full packaging value chain.

Engagement: Collaboration Across the Supply Chain

A working example of cross-business collaboration on reuse solutions (The Refill Coalition) was shared at the beginning of each Roundtable to establish the concept of how a collaborative approach can function, and offer a tangible model to shape the discussion.

Members expressed a desire to work collaboratively on reuse projects but cited a lack of collaborative projects with which to engage.

Members believe that trials should be collaborative between brands and retailers to accelerate the transition. It was acknowledged that a rapid growth in products delivered in reusable packaging will serve to:

- accelerate the normalisation of reuse behaviours among citizens;
- increase economies of scale;
- mitigate the costs to the supply chain;
- establish price parity for shoppers.

Brands are looking for support to identify and develop reuse solutions appropriate to context-specific requirements and to overcome internal barriers to reuse innovation.

Members acknowledged that WRAP is ideally placed to establish a pre-competitive environment to develop knowledge and experience, and to openly share learnings that would help businesses to understand the best approach for reuse in their specific context.

System Design: Standardisation

Brand equity and differentiation were identified as key concerns in relation to the introduction of standardised reusable packaging systems. Concern around the potential for standardisation to drive value out of a category, thereby impacting the commercial viability of reusable packaging, was highlighted. Limited activity on standardisation was noted with the exception of one collaborative group identified as working on standardisation in the household and personal care categories.

There are a number of opportunities in the standardisation of consumer packs. Standardisation:

- **Is well established**: standard formats such as aluminium drinks cans, food tins, milk bottles and clear milk bottle caps are already in use across the market;
- **Provides opportunities for branding / differentiation**. Lids and labels can be used to differentiate for consumers; QR codes and digital water marks can aid sorting;
- **Would enable the standardisation of return logistics and filling lines** which will, in turn, support the business case;
- **May drive down costs for businesses**, the consequent savings could be utilised to incentivise increased citizen participation;
- **Is more challenging for brands than for own brand products**.

More research, and active innovation, is needed to understand and deliver the opportunities of packaging standardisation. This may include, for example: consideration for standardised apertures and closures, neck sizes, container shapes and sizes, and filling equipment. Conversely, non-standardised containers add cost and complexity into the cleaning and filling stages of the reuse cycle.

A significant amount of standardised transit (secondary and tertiary) packaging was noted in the current value chain, highlighting further opportunities for standardisation to enable the transition away from single-use across primary, secondary and tertiary packaging formats.

System Design: The Role of Deposits

Deposits are seen by some as an effective way to ensure citizens are incentivised to return reusable packaging, however a number of concerns were articulated:

- Do deposits overly, or unnecessarily, complicate the customer journey?
- Deposits (especially premium deposits) add a significant cost to the average basket which could exclude lower income citizens and are challenging to implement on lower priced items (for example a 75p handwash);
- A deposit requirement may present a barrier to citizen engagement due to cost-of-living increases, limiting the potential for reuse to achieve mainstreaming objectives.

More research is needed to investigate and better understand:

- The potential for reusable packaging systems to operate without a deposit framework (for example the traditional UK milk bottle system, leveraging gamification and other non-financial incentive models, utilising other behaviour change strategies);
- The level at which deposits should be set to ensure fairness, accessibility and transparency while maximising participation and return rates;
- The design of deposit-based return systems to ensure citizens can always access cash refunds and that deposit monies are handled correctly and transparently within the system, not for profit;
- Non-cash-based incentivisation frameworks to maximise returns.

Information: Requests for Guidance

Members articulated a role for WRAP to provide guidance around reuse including:

- Understanding the scope and definitions of reuse.
- The best packaging materials for reusability.
- Appropriate cleaning practices.
- Running effective trials.
- Providing a consistent approach to data measurement.
- Understanding what the proposed revisions to the EU Packaging and Packaging Waste Directive (PPWD) mean for specific sectors and products.
- Learning from other markets (for example the German beer and water sectors, Canadian beer sector etc.)

- Consideration for undertaking collaborative activities within the parameters of UK Competition Law.

Regulation: Food Safety and Hygiene

Members agreed that all reusable packaging should:

- Maintain shelf life;
- Maintain quality standards;
- Adhere to all food standard regulations;
- Convey the hygiene of reusable products to challenge any hygiene-related misconceptions, which may emerge from citizens' lack of knowledge, or experience, of reusable products;
- Not lead to an increase in food waste.

Specific technical questions were raised in relation to individual sectors (see below) and Members would welcome additional clarity and guidance from WRAP on food safety and hygiene regulations for reusable packaging systems.

Regulation: Competition Law

Competition Law was cited as a concern when working on collaborative projects to drive the transition to reusable packaging. However, no specific examples were provided demonstrating Competition Law breaches in pursuit of reuse collaboration, so it is unclear whether this is an actual or perceived barrier.

It was noted that the Competition and Markets Authority (CMA) was reviewing the role of Competition Law in enabling collaboration to achieve improved sustainability outcomes across different sectors[2]. The CMA has since published draft guidelines[3] setting out a variety of different scenarios that may be deemed compatible with the Competition Act:

- Phasing out, or withdrawal, of non-sustainable products or processes;
- Creation of industry standards that promote sustainability;
- Pooling sustainability credentials on suppliers or customers;
- Industry-wide efforts to tackle climate change;
- Cooperation on sustainable R&D.

This updated guidance appears to provide reassurance, but Members would welcome further clarification and guidance.

Legislation: Targets and Extended Producer Responsibility (EPR)

[2] https://www.tlt.com/insights-and-events/insight/green-sky-thinking-can-competitors-work-together-to-meet-their-sustainability-objectives/

[3]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1139264/Draft_Sustainability_Guidance_document__.pdf

In light of the significant investment and structural change required across the supply chain to elevate reusable packaging to mainstream use, Members expressed the need for government to take a long-term view on legislative frameworks to promote reusable packaging.

The key considerations were:

- **Legislation is necessary to drive change**. A mandated reuse target would drive the establishment of economies of scale and enable long term investment in reuse;
- **Clarity on reuse under EPR is essential for investment:** Currently, the biggest driver of change is EPR although Members expressed that they do not currently understand its full impacts yet. As a result, some Members will not make significant moves into reuse until there is greater clarity around fee structures and obligations;
- **Articulation of the intersection between reusable packaging systems and net-zero objectives:** Many businesses have limited policies around reuse, but significant targets to achieve Net Zero with deadlines ranging from 2030 to 2050;
- **Alignment with European regulation on reuse:** Action from Europe is being driven by the EU's proposed revisions to the Packaging and Packaging Waste Directive (PPWD) for the categories in scope (beverages and take away food), with additional country-specific reuse legislation in countries such as Austria and France. Some Members expressed that, regardless of whether they conducted activities in Europe, it would be prudent to align with European legislation.

Legislation: The UK's Deposit Return Scheme (DRS)

The role of DRS as an enabler for reusable packaging systems was discussed across each of the Roundtables and particularly among soft drinks industry participants, as the primary category currently in focus for DRS.

Many Members saw the introduction of DRS in 2025 as a key opportunity to combine with a wider reusable offer. However, DRS, as it currently stands, is perceived as a missed opportunity to collect reusables and Members questioned whether and how this decision could be reversed and whether there was an opportunity to test openness for citizen behaviour change towards reusables linked to DRS. Members shared that after an "8 week shock period" citizens respond very well to DRS and incorporate it into their routines, showing an expected level of behaviour change.

4.0 Key Sector Specific Insights

In addition to the more general insights outlined in earlier sections of this report, the following is a summary of the specific concerns and insights raised at each Roundtable.

4.1 Dairy Roundtable

The Dairy Roundtable was well attended by brands representing all key dairy categories including milk, cheese, yoghurt, dairy drinks and ice-cream.

The key topics raised in the sector-specific discussions are summarised below. Good opportunities exist for reuse, but very few dairy trials have been undertaken to date and a number of caveats remain and should be considered:

- Due to a small number of large suppliers, and milk as an everyday commodity, there are opportunities for reuse within the milk category. However current HDPE bottles use recycled material, have high recycling rates, and operate within a high functioning closed loop recycling chain and Members questioned whether this was worth disrupting. Some products (for example. large volume milks) are heavy, and it was questioned whether reusable packaging might add more weight which would be unattractive to consumers;
- Milk is a highly wasted item and it would be necessary to understand the impact of a shift to reusable packaging on food waste for this category;
- Traditional dairy milk is recognised as a declining category, which may present a barrier to investment in reusable packaging systems. There is however, a noted increase in alternative dairy product consumption;
- Including food service in reuse collaborations to achieve greater economies of scale;
- Whilst there was interest in solutions for both refills and reusables, concern remains around the extra hygiene and quality control that is required with in-store refill solutions for this category, indicating a preference towards prefill models as a risk mitigation measure;
- Successful collaboration is already taking place on packaging standardisation to drive change in the single-use container supply chain, for example clear milk bottle caps;
- Specific guidance is needed with regards to the appropriate cleaning practices for reusable dairy packaging, either by 3rd parties, or in-house. Suggested models included the establishment of pre-wash/ sterilisation in a single location, and a final UV or peroxide sterilisation process attached to filling lines. Scenario testing will help to identify the lowest carbon options that satisfy all food safety considerations, to minimise carbon impacts and maximise the efficiencies of reverse logistics within the existing supply chain.

Ideas for collaborative projects included:

- A deli counter trial, serving into customers' own containers (but recognising that counters in major retailers are in decline).
- Further citizen research around reuse for dairy products.

- Developing standardised reusable dairy packaging.
- Producing information on hygiene standards for reusable packaging systems.
- A potential project around either: yoghurt, milk, or cheese.

4.2 Retail Roundtable

The Retail Roundtable was well attended by the majority of UK's major grocery retailers.

Many retailers have undertaken proof of concept trials, some of which are expanding and trials are resource intensive, both in terms of finance and staff time and engagement.

Key topics raised in sector-specific discussions are summarised below:

- Convenience retailers, due to the nature of the stores, are less likely to lead on reuse.
- The optimal product mix for a reuse offer needs to be identified, as well as the appropriate equipment and supporting system(s);
- All retailers have increased general "Bring your own" (BYO) container messaging across stores;
- Convenience and habit are the main drivers to pre-pack and more insights and interventions are needed to understand and manage this. Participants noted that while offering loose, unpackaged fresh produce is recognised as delivering high impact material reduction, customers continue to select packaged options, even when presented with loose options located directly adjacent and marked at a lower price point.

Reusables

- For some products, pre-filled reusable packaging works better for liquids than refills.
- There are benefits to reusable packaging: customers do not have to remember to bring their own containers to fill; the format works online and is good for convenience and smaller footprint stores. The challenges are the price of deposits; the scalability of the concept and ensuring customers bring the containers back.
- High deposits may be a barrier for some customers to engage in pre-filled reusable packaging models – refills don't require a deposit so are potentially easier for customers to engage with.

In-store Refills

- Refill-in-store trials have shown divergent outcomes. Some have had greater engagement from dedicated refill zones in-store, others have more success with 'in-aisle' positioning where customers are already shopping the category.
- It is paramount that consumers have trust that products sold through an in-store refill model are cheaper than the linear pre-packed alternative - a wider price differential between refill and linear pre-packed options generally leads to better citizen engagement.
- Space and spillages are an issue for some refill in-store models.

- In-store service counters could be used to support reuse (for example BYO containers to the counter where a store colleague fills for the customer) however it was noted that service counters are in decline across most retailers.

Ideas for collaborative projects included:

- Tackling the highest impact categories (in terms of single-use plastic packaging waste) for example water, soft drinks and milk.
- Commodities that sell in high volumes with a small supply base for example milk, eggs, produce and beverages.
- Investigating value-add categories for example loose bakery where refills can enhance the customer proposition.
- Collaboration on expanding / recalibrating secondary and tertiary packaging to incentivise reuse.

4.3 Frozen Food Roundtable

The Frozen Food Roundtable was attended by some key Members from brands and retailers currently working within the category.

The key topics raised in sector-specific discussions are summarised below:

- There is potentially a high risk of quality control issues for frozen refill, ranging across product quality and food safety. These included:
    - freezer burn, freezer taste and product clumping,
    - temperature abuse, and
    - cross contamination when dispensing in-store.
- In-store floorspace for additional / larger freezers, such as for frozen pick and mix, is difficult to create. Pick 'n' mix pricing is also challenging for retailer stock control.
- Pathogen transfer risk shoppers and staff in instore refill settings is a significant concern for e.g. norovirus, highlighting a potential benefit in pre-filled reusable containers.
- It is challenging to determine which products are appropriate for reuse: for example, quick moving items vs. products that stay in freezers for a long time.
- For frozen ready meals, the existing tray is lightweight, increasingly made of recycled content, technically recyclable and withstands low (frozen) and high (oven/ microwave) temperatures – any reuse solution would require technical innovation across the supply chain to ensure this spectrum of use was retained in a reusable packaging system.
- Household freezer space is typically at a premium. Reusable packaging solutions should consider flexible rather than rigid packaging formats, similar to existing premium zip lock single-use packs.
- Much of the single-use plastic packaging in the frozen food category is lightweight and theoretically recyclable. With currently limited kerbside options for households to recycle this material from home, citizens are asked to place it in front-of-store collection points at participating retailers. Stubbornly low recovery rates indicate that this behaviour is not happening at scale and a lack of infrastructure in the UK to reprocess recovered material highlights the need to find alternatives to flexible packaging and presents an opportunity for reusable packaging systems to fill this gap.

Ideas for collaborative projects included:

- Solutions using pre-filled reusable pouches, which may alleviate challenges with home storage.
- Evaluation of reusable packaging opportunities for premium ready meals – investigation of technical material innovations for trays. Innovation was discussed for example in store ice cube dispenser and adapting compartments on freezers.
- Transpose learning from use of bulk frozen products in the HoReCa sector.
- Space saving storage innovations – e.g. new formats for bulk in-store dispensing.

4.4 Household & Personal Care Roundtable

The Household & Personal Care Roundtable was attended by some key Members working in this category.

The key topics raised in sector-specific discussions are summarised below:

- A number of trials have taken place in the household & personal care category, some of which are moving from more manual 'proof of concept' trials to automated, scaled models.
- Most Members reported focusing on the general sustainability of products and existing packaging, rather than specifically on reusable packaging systems (for example improvements to the recyclability of packaging, citizen education on the importance of cold washing etc.).
- Some Members reported expanding their product offering into reusable packaging rather than replacing single-use products (for example. feminine hygiene products).
- There are benefits and limitations of using LCAs to measure the impact of reusable packaging solutions.
- Many Members have developed 'refill-at-home' products – for example, a product purchased in a replenishment pouch, which is then transferred into a durable bottle at home. These are seen as a positive solution, however many of the pouch options on the market are currently not recyclable and / or not recycled in practice.
- Many Members have developed refill in-store models as a cost effective first step to gather citizen feedback. Members noted that in-store refill has less complexity and lower cost for return logistics than pre-filled reusable consumer packs.
- There is a perception that citizens have hygiene concerns with reusable packaging.
- Key citizen insights demonstrated:
  - a desire for personal care products with 'shelf appeal.'
  - personal care products are often tried and swapped (e.g. for a different brand, fragrance etc.) which makes reuse models harder to embed but also supports the argument for packaging standardisation across competitive brands within a category.
- While the 'Loop' model was found to be unviable, due to the costs and high operational requirements for return logistics, Members noted that other reuse at home/ on the go systems may function more successfully.

- The Cosmetic, Toiletry and Perfumery Association (CTPA) have developed guidelines to support businesses working on reuse solutions for cosmetics.

Ideas for collaborative projects included:

- Exploring reuse solutions for complex single-use products, such as toilet roll.
- Standardisation of bulk containers for refill in-store.
- Further research into:
    - The highest volume/ impact products within household & personal care to focus efforts.
    - Citizen acceptability for standardisation – for example, would they accept their favourite perfume / shampoo in a different shaped bottle?

4.5 Soft Drinks Roundtable

The Soft Drinks Roundtable was attended by some key Members working in this category.

The key topics raised in sector-specific discussions are summarised below:

- There are many challenges to reuse for the beverage sector as reuse presents a fundamental change to the current linear packaging supply chain, which is highly optimised to blowers and fillers for single-use plastic bottles.
- It was agreed however, that the proposed EU PPWD targets were driving change faster than in other sectors with no targets.
- Fresh/ short life juice products in a chilled supply chain can be challenging to put into reusable formats.
- Carbonated products are challenging for refill-on-the-go with regard to product quality, dispense time and the high cost of dispensing technology cited as a significant barrier.
- For some Members, the EU's 10% beverage targets will not be achieved solely through refill-on-the-go models. Brands will also need to also develop reusable packaging options for in-home and on-the-go settings.
- Many Members used the language of "returnables" (pre-filled reusable containers) showing that language around reusable packaging is evolving and may need new alignment across both business and government.
- The general focus to date has been on "returnables" (Reuse on-the-go, Reuse at home).
- Many brands already offer products for immediate consumption which could be used for refilling, for example soft drink dispensers in a restaurant.
- Reverse logistics are limited as there is no existing UK infrastructure to support returnable packaging – finding / establishing shared cleaning facilities is key.

Ideas for collaborative projects included:
- Specific guidance with regards to:
    - Hygiene and regulations for water refills – there is potential for contamination when transferring products through refill. The Natural Source Water Association

    (NSWA) has suggested Ozonating the product but this brings further issues with filters.

- Collaboration on standardised dispensing systems for concentrates for:
    - B2B specifically engaging the HoReCa Sector; and
    - B2C solutions, similar to the SodaStream model.

  It was noted however, that many hospitality venues are brand specific which makes collaboration harder, and the increase of dispense equipment in customers' homes may not deliver overall environmental savings.
- Businesses would need to collaborate on similar product types (for example, concentrates for hospitality or premium fresh juice products) and would need to have similar production facilities which are likely to be in Europe (due to EU legislation pressure) - this adds complexity to the development of reuse in the UK.
- Further research is needed into:
    - Learnings from the beer sector which is almost entirely reusable.
    - The viability of REFPET, as used for German reusable bottled waters.

5.0 Conclusions

The insights gathered from the Roundtables show the complexity of the change required to meet the Pact's objective of making reuse or refill systems part of the mainstream shopping experience for citizens. Key considerations included:

- **Technical**: reusable packaging design, equipment and infrastructure
- **Commercial**: the business case and the current trading environment
- **Engagement and collaboration**: citizens, brands & retailers; supply chain
- **System Design**: standardisation, the role of deposits
- **Information**: guidance and information sharing
- **Regulation**: food safety, hygiene and Competition Law
- **Legislation**: targets, Extended Producer Responsibility, Deposit Return Schemes

Reflecting on the challenges facing businesses, as they look to transition to more reuse/ refill solutions, is useful to understand the complexity and highlight areas where extra support or collaboration is needed.

To stimulate renewed action on reuse among Pact Members, a number of recommendations have been produced which are summarised below:

1. Information sharing

Members can support genuine collaboration by sharing data and insights from trials, both quantitative and qualitative. Some businesses are sharing selected information from trials, but this does not paint a full picture on what did and didn't work, nor why. This leads to a lack of real information surrounding reuse. Businesses must feel able to share the full results of trials within a pre-competitive space to enable the whole of the supply chain to learn and move forwards.

2. 'Myth busting' the perceived lack of consumer demand

As commercial organisations, businesses understandably want to evidence demand before investing in reuse solutions, however citizens cannot give feedback on how they would use a novel reuse solution without having been given the opportunity to try it. However, with the limited availability of reuse solutions and refill options, what is perceived as a lack of demand may actually simply be a lack of availability. This could be addressed by providing more reuse solutions, or through delivery of a collaborative mass market campaign to push shopper behaviour change towards choosing reusables. Until this is done, it is not possible to fully understand citizen demand and engagement with reuse.

3. Collaborative Innovation for Scale

Most businesses are still conducting 'proof of concept' trials which focus on information gathering, rather than being designed for scale. Whilst these trials are important for increased customer visibility of reuse, the feedback gathered during the Roundtables showed that this piecemeal approach cannot be efficiently scaled, as the individual approach will not reach sufficient volume or economies of scale to compete against the price for linear, single-use options. For scaled reuse systems to work, it requires market-wide collaborative innovation across the supply chain and this is where Members, with WRAP support, should be focusing their efforts.

4. Sharing Innovation Risk

Many businesses still see the development of reuse as an opportunity for competitive advantage among a small cohort of shoppers, leading to the piecemeal approach which cannot be scaled. It is only through working together that businesses can drive transformational change and provide consistency for a shared supply base, through, for example, elements of system standardisation.

The problems caused by single-use plastic packaging represent an existential threat to humanity, not a race against competitors. Businesses will only be successful if they work together. To achieve the objective of reusable packaging becoming mainstream, reuse needs to be seen as **a system wide solution within which, all retailers and brands can participate and compete effectively and efficiently**.

5. Reuse is not seen as an enabler for wider business objectives

Reuse is not yet being seen as an enabler beyond helping businesses to meet plastic packaging reduction targets and is too often seen through the prism of carbon emissions reduction only, the benefits of which are hard to demonstrate through small scale trials.

There are many benefits to reuse[4] for example: reducing cost and complexity in volatile supply chains, enabling behaviour change, enhancing customer experience as well as meeting wider business commitments to Net Zero and the Sustainable Development Goals, all of which should be considered when making the internal business case for reusable packaging systems.

6. Ensure public commitments on reuse are reflected by Member action

During the Roundtables, many Members showed a willingness to learn more about the opportunities, but some confirmed that reuse is not on current R&D timelines. This is at odds with the public commitments Members signed up to within the Pact, and the milestones set out in the Roadmap to 2025. This should be discussed with individual companies to ensure all Members are on track to deliver reuse at scale.

7. Working with the Hotel Restaurant and Catering (HoReCa) Sector

There was a clear desire shown by Members to explore how the retail supply chain can work with the HoReCa sector to drive volume and economies of scale - this should be prioritised in future UKPP activities.

[4] https://ellenmacarthurfoundation.org/reuse-rethinking-packaging

8. Transit Packaging

Additional focus should be given to the potential of reusable transit packaging (secondary and tertiary) to reduce plastics in the supply chain. The Roundtables showed that there is already a significant amount of reusable transit packaging in the supply chain but it is unclear whether this is being maximised by all Members.

9. UK Deposit Return System (DRS) as a Missed Opportunity

Members are keen to revisit the design of the UK's DRS system to ensure that it enables reuse, as well as the collection of materials for recycling. Further engagement with Government is required.

10. Supportive Legislation

Many Roundtable discussions argued that wholesale change will only come with legislation (cf. the focus that the EU PPWD revisions have given the beverage sector, or the transition away from single-use bags that was a result of the Carrier Bag Tax).

Many Members indicated that they would welcome wide-ranging reuse legislation to create a level playing field and enable long term investment.

It was agreed that entire supply chains will need to move together to achieve the necessary volumes and economies of scale to make reuse commercially viable and legislative certainty is vital to underpin that transition.

6.0 Summary and Next Steps

There is a strong, proactive cohort of brands and retailers that have carried out reuse trials and invested resources into running these initiatives. This work has provided essential learnings and facilitated an evolutionary step in thinking about mainstream implementation of reusable packaging systems for the UK market.

Based on feedback from the Roundtables, WRAP acknowledges that reuse is more challenging and less impactful for some sectors/ categories than others, and will seek to prioritise working with those sectors that will be most impactful in this space to develop a strong case for investment for the wider industry.

The key feedback has been that this work must be done collectively and in collaboration. To achieve this, new objectives should encourage and enable collaboration in large joint initiatives, to solve the challenge of standardisation across reuse infrastructure and systems, while retaining brand differentiation and equity.

In response to the knowledge gathered during the Reuse Roundtable series, WRAP is working to develop a clear Roadmap for Reusable Packaging Systems in the UK. This will be complemented by an initial set of reusable packaging system blueprints to tackle key high-impact product categories with scalable, standardised implementation models. These blueprints will set out a turn-key approach for businesses, consolidating learnings from the range of reuse activities, both internal and external, in which WRAP has participated over the past two years. These blueprints will initially focus on prefill systems, drawing on feedback and contribution from across the UKPP membership and the nascent UK reusable packaging value chain.

Furthermore, with the post-2025 agenda currently in development, consideration must be given to new reuse-specific targets, with reuse being highlighted as a key strategic area for the next phase of The UK Plastics Pact.

In the meantime, WRAP will:

1. **Engage with government** on the key questions of regulation, legislation, EPR and DRS outlined in this report.

2. **Collaborate** with other organisations in the reuse space to develop:
   a) the vision for what a shared reuse infrastructure for the UK could look like;
   b) an agreed methodology to record and measure reuse data in order to demonstrate the impact of reuse; and
   c) sector specific washing standards for reusable consumer packaging.

3. **Create** a pre-competitive space in which Members can:

  - Share full learnings from trials openly to enable good, long-term, decision-making based on real data and evidence.
  - Share innovation risk through collaborative cross-supply chain projects to develop scalable reuse solutions.

4. **Continue to develop** the research and guidance needed by Members (outlined above), and signpost relevant resources for reuse, such as Planet Reuse and The Reuse Portal. As a priority, clarification on the updated Competition Law guidelines should be obtained.

5. **Explore public reporting** on progress towards the milestone targets and uptake of reuse/refill systems by members.

Annex 1: UK Plastics Pact Reuse Milestones

WRAP's vision is a thriving world in which climate change is no longer a problem.

Our mission is to make the world a more sustainable place. We bring people together, we act on the facts, and we drive change.

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