

A Just Transition to Reusable Packaging

NECESSARY CONDITIONS, BENEFITS AND BEST PRACTICE

#we choose reuse



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Executive Summary

“A Just Transition to Reusable Packaging: Necessary conditions, benefits and best practice” looks beyond the environmental benefits of reuse and explores the potential socio-economic benefits, with a focus on the grocery retail and HoReCa (Hotel, Restaurant, Cafés) sectors.

The triple planetary crisis¹ (climate change, pollution and biodiversity loss) is now widely acknowledged as a real and existing threat to human societies. Current resource consumption levels are unsustainable, as is the amount of waste produced, and so governments, businesses, consumers and communities must increasingly adopt new models to transition from a linear to a circular economy. This includes the transition from single-use packaging (SUP) to reusable packaging, or reuse.

European Union (EU) policy is being developed to tackle these key environmental and societal concerns; however, there is limited legislation specifically in relation to reuse, and action to develop the systems required is currently falling mainly to the private sector on a voluntary basis.

The transition to reuse brings both opportunities, and challenges, for workers, businesses, consumers and communities. Therefore this study endeavours to outline conditions, criteria, and recommendations for scaling up reuse in a way that benefits all, in line with Just Transition principles.

Our research suggests that a transition to reuse for grocery retail and HoReCa could have an impact on:

→ **Businesses** - reuse offers clear potential to create new business models, deliver on environmental promises, control packaging costs and offer enhanced customer experiences. Research suggests reuse may also offer particular benefits to SMEs, the backbone of the EU economy, particularly when they can access existing pooled infrastructure.

→ **Workers** - reuse can create new jobs, including regionalised and localised jobs with the potential for greater job satisfaction, as well as the development of knowledge-based, professional and vocational skills for workers. Some jobs could be lost from the SUP sector and this should be carefully managed, applying Just Transition guidelines to support any worker who is impacted, to ensure a fair outcome for them.

→ **Consumers** - reuse offers huge benefits to consumers in terms of helping them to reduce their packaging waste. Challenges around price, accessibility and availability should be managed to ensure reuse is fairly available to all consumers, and businesses should collaborate to create standardised reusable packaging and systems in order to be able to offer the widest access. By facilitating SMEs to access the market, reuse can also provide consumers with the benefit of a broader diversity of products to choose from.

→ **Communities** - the more local reuse systems are, the better the environmental benefits. This leads to other socio-economic benefits such as local employment opportunities which, in turn, bring higher consumer spending. Additionally, spending with SMEs leads to the Local Multiplier effect, where money is retained in the local economy for longer.



¹ What is the Triple Planetary Crisis? | UNFCCC

However, it is unlikely that the transition to reusable packaging at scale will occur organically. A Just Transition to reuse needs targeted support through effective policy-making, and further research to ensure any decisions are based on sound evidence, including:

- **Supportive legislative & policy frameworks** e.g. harmonised reuse targets, mandatory standardisation and a supportive legal framework to promote reuse.
- **Supportive economic policies & incentives:**
 - Access to finance: e.g. financing reuse infrastructure from ringfenced Extended Producer Responsibility (EPR) monies, supporting businesses to invest in reuse and funding capacity-building reuse associations.
 - Supportive Just Transition policies: e.g. enabling social dialogue and supporting both workers and businesses.
 - Leading by example: e.g. using sustainable procurement policies to support reuse.
- **Collaboration & communication** e.g. sharing best practice, undertaking further research into infrastructure requirements, fostering cross sector collaboration and creating awareness raising campaigns for consumers and businesses.

There's also a role for social enterprises (companies that benefit society through job creation and social inclusion) to facilitate the Just Transition to reuse, and they should be supported to do so. In the context of reusable packaging, social enterprises could help guarantee a Just Transition for vulnerable groups through the development of circular skills, particularly via on-the-job training, and the development of local communities.

If managed well, a Just Transition to reusable packaging is an opportunity for grocery retail and HoReCa to be part of green recovery plans, to attract investment, and for the work of employees in these sectors to be better valued going forwards. It's also an opportunity to improve the consumer experience by putting accessibility at the forefront and ensuring reuse is designed from the start in an inclusive way, accessible by all.



Introduction

This study looks beyond the environmental benefits of reusable packaging and explores the potential socio-economic benefits, with a focus on the grocery retail and HoReCa (Hotel, Restaurant, Cafés) sectors.

The transition from single-use packaging (SUP) to reusable packaging is a systemic one which brings both opportunities and challenges for workers, businesses, consumers and communities. Therefore this study endeavours to outline conditions, criteria, and recommendations for scaling up reuse in a way that benefits all, in line with Just Transition principles.

What is Reusable Packaging?

Reusable packaging is designed to be used multiple times for the same purpose (for example the traditional glass milk bottle), in contrast with single-use packaging that is designed to be used once and then thrown away.

The waste hierarchy², a tool that is commonly used to evaluate the most favourable waste management processes from an environmental perspective, highlights the importance of, firstly, packaging reduction and, secondly, ensuring that packaging is reused. This is because reuse avoids the use of finite resources to create new packaging when existing packaging could be used again, thereby avoiding unnecessary waste.

Reuse (used interchangeably with “reusable packaging” in this report) is not a ‘new’ concept. Less than 100 years ago, reusable packaging for food and drink was the norm, before the advent of new materials and manufacturing technologies which combined with socio-cultural changes in the home to create a shift towards single-use. Unfortunately, for many products and services, the cultural memory of reuse no longer exists and needs to be rebuilt for both consumers and businesses.

Currently, most packaging within grocery retail and HoReCa is single-use. The Ellen MacArthur Foundation reports that among its Global Commitment signatories (leading global brands and retailers), less than 2% of plastic packaging was reusable, and more than half of all signatories reported 0% reusable packaging³. However, the transition back to reuse is now well underway.

The purpose of this study is not to re-examine where and when reuse makes the most environmental sense (this information can be found in several analyses and meta studies, such as Rethink Plastic Alliance’s Realising Reuse Report⁴; Zero Waste Europe’s “Reusable vs single-use packaging”⁵; The European Commission’s “Life Cycle Inventories of Single Use Plastic Products and Their Alternatives”⁶ and the UN Environment Programme’s “Addressing Single Use Plastic Pollution Using A Life Cycle Approach”⁷). Reusable packaging should be adopted where it makes sense from an environmental point of view, and it should be designed to reduce its environmental impact as far as possible, for example, it should contain the highest recycled content possible and be easily and readily recyclable in the EU at end-of-life.

This report aims to show how the scaling up of reuse can benefit workers, business and consumers, as well as the environment.

2 https://en.wikipedia.org/wiki/Waste_hierarchy

3 <https://emf.thirdlight.com/link/n1ipti7a089d-ekf91l/@/preview/1?o>

4 <https://rethinkplasticalliance.eu/wp-content/uploads/2021/07/Realising-Reuse-Final-report-July-2021.pdf>

5 <https://zerowasteurope.eu/library/executive-summary-reusable-vs-single-use-packaging/>

6 https://ec.europa.eu/environment/enveco/circular_economy/pdf/studies/DG%20ENV%20Single%20Use%20Plastics%20LCA%20181213.pdf

7 <https://www.unep.org/fr/node/29018>

Reusable Packaging Defined

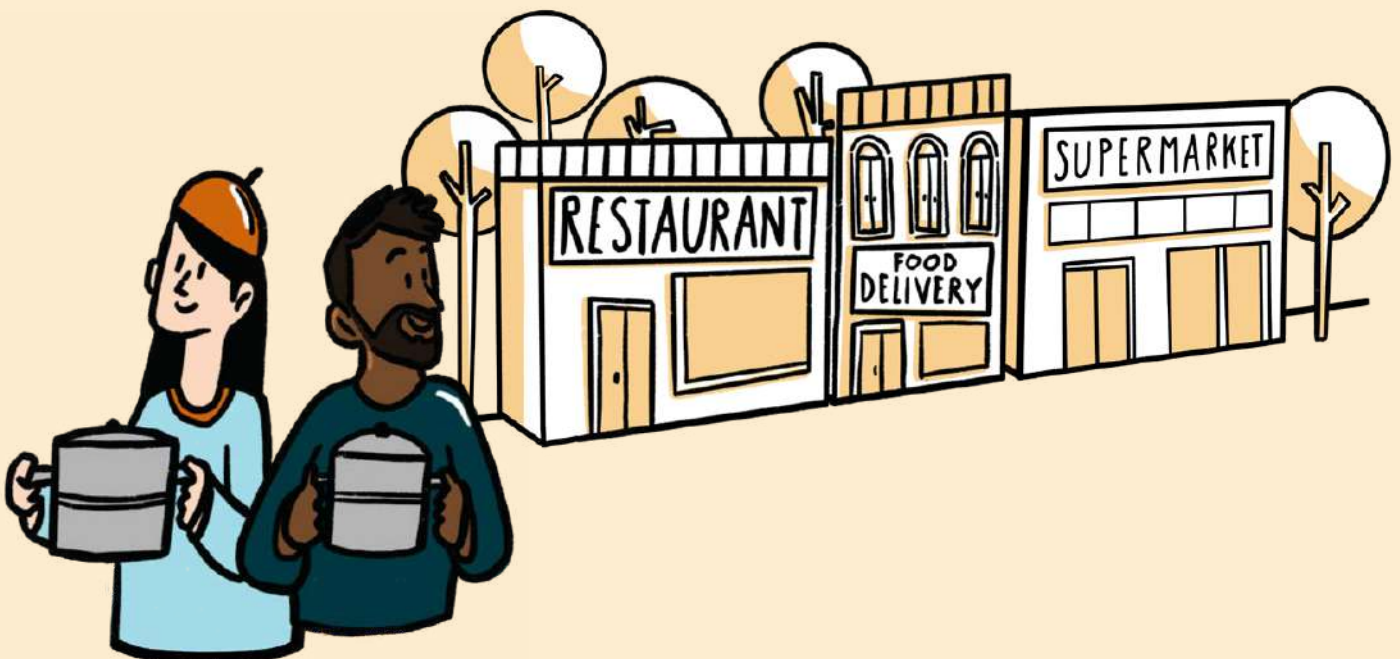
There are various working definitions of reusable packaging (some enshrined in law, for example in Germany), but all contain the following elements⁸:

- Refilling the packaging for the same purpose for which it was conceived (e.g. a jam jar that's returned to the producer and refilled with jam, rather than using an empty jam jar to store pens).
- Packaging which has been designed to accomplish, or proves its ability to accomplish, a minimum number of rotations in a system for reuse.
- Packaging with sufficient infrastructure and logistics in place to allow return and reuse.
- Packaging with an appropriate incentive system (e.g. deposit fee) to encourage returns.

REUSE IN ACTION

Scenario 1: Buying lunch on the go in a reusable container - e.g. &Repeat and Uzaje in France, RECUP in Germany, CLUBZERØ in the UK and ReCircle in Switzerland.

1. Restaurant staff fill reusable containers and put them out on the counter.
2. Customer buys their lunch in a reusable container (usually paying a deposit).
3. Customer eats their lunch.
4. Customer brings their reusable container back to the restaurant, or another return point, and is refunded the deposit.
5. Used containers are hygienically washed and redistributed to restaurants (if washed by a third party), ready to be refilled.



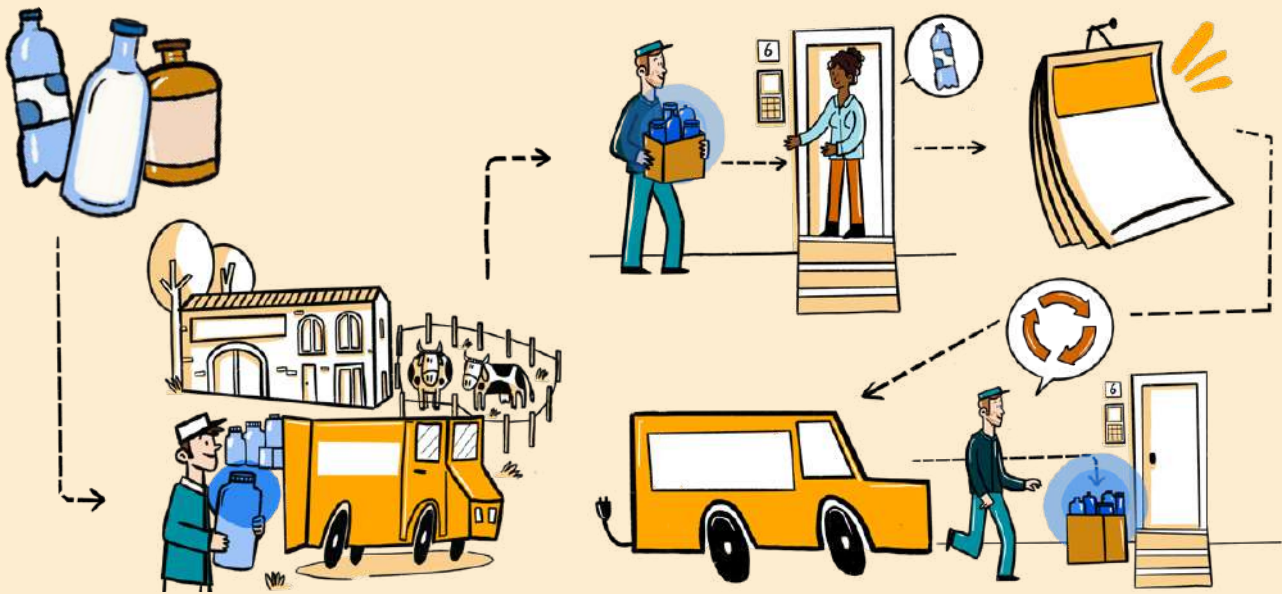
⁸ Reuse - Rethinking packaging, Ellen Macarthur Foundation 2019 Reuse - rethinking packaging (ellenmacarthurfoundation.org) and <https://www.mehrweg.org>

REUSE IN ACTION

Scenario 2: Having goods delivered at home in reusable containers -

e.g. [Abel & Cole Club Zero](#), [Bower Collective](#) and [Dizzie](#) in the UK, and [Drive tout nu](#) in France.

1. Manufacturer fills product into reusable containers and delivers them to the retailer.
2. Retailer delivers products in reusable containers to customer.
3. Customer consumes products.
4. Retailer collects containers from customer at the same time as their next delivery, or customer posts them back.
5. Used containers are hygienically washed and returned to the manufacturer for refilling.



What is a Just Transition?

The concept of a Just Transition⁹ emerged from concerns that transitioning to a green economy should be done in a way that leaves no one behind. Just Transitions embrace the pillars of sustainable development - generating wealth, lifting people out of poverty, improving quality of life and protecting the environment, all without compromising future generations. Initially applied to the transition away from coal to cleaner energy, these ideals are now applied to other aspects of making economies more environmentally sustainable and less resource intensive.

For a transition to be 'just', any socio-economic benefits should be maximised whilst any negative impacts are carefully mitigated.

At the heart of this is ensuring free and fair social dialogue between all the groups involved, to ensure that all those affected are included in developing the outcomes.

This study focuses on the grocery retail and HoReCa sectors. Both are undeniably essential sectors and yet they are rarely highlighted in the green recovery narrative, which centres more on energy and technology.

Applying Just Transition principles to the scaling up of reusable packaging is a good opportunity for these sectors to be included in green recovery plans. It will also ensure better outcomes for all workers in these sectors.

⁹ https://www.ilo.org/global/topics/green-jobs/WCMS_824102/lang--en/index.htm, <https://www.ebrd.com/what-we-do/just-transition> and https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

“

A JUST TRANSITION IS NOT FREE, BUT THE COSTS OF AN UNJUST TRANSITION FOR INDIVIDUALS, COMPANIES AND SOCIETIES ARE MUCH HIGHER

IndustriALL Europe's
Just Transition Manifesto

”

Research Methodology

Having identified a lack of available quantitative data regarding impacts on job numbers from the transition to reuse, this study focused mainly on qualitative analysis.

One of our key recommendations is that further data gathering is required in order to ensure that the transition to reuse is fully understood and managed appropriately. That said, the need for data must not delay action, as there are key legislative measures which are needed now in order to create the security for reuse to further develop.

The research comprised structured interviews with experts from across the reusable packaging value chain, and desk-based research into the latest thinking across Europe and more widely. The analysis is framed by a scenario whereby 30% of single-use packaging used within the HoReCa and grocery retail sectors is replaced by reusable alternatives by 2030. This is already a target in Portugal, and other European countries are expected to follow suit.



Context

Environmental Context

The triple planetary crisis¹⁰ (climate change, pollution and biodiversity loss) is now widely acknowledged as a real and existing threat to human societies. Current resource consumption levels are unsustainable, and governments, businesses, consumers and communities must adopt new models to transition from a linear to a circular economy to mitigate these threats.

Directly coupled with the overconsumption of resources is the amount of waste produced. Consumer packaging waste is an increasingly large proportion of the overall waste output of our societies. Consumer packaging waste is overwhelmingly single-use and, in the case of the grocery retail and HoReCa sectors, often made of single-use plastic (either mono or, more likely, multi-material combinations).

The current reliance on single-use packaging poses multiple threats:

- **Resource depletion** - single-use packaging is used just once, often for a very short time and then its value is lost as it is disposed of (the linear economy).
- **Climate change** - the manufacture and disposal of packaging generates greenhouse gas emissions (GHGs), contributing to climate change. As mentioned above, life cycle assessments (LCA) have shown the many scenarios and use cases where reusable packaging generates a smaller carbon footprint than single-use alternatives.
- **Waste disposal** - packaging waste creates a heavy burden on society, from an environmental, social and economic point of view:
 - The average person in the EU produces 178kg of packaging waste per annum, of which 64% is currently recycled¹¹.
 - For plastic packaging waste, recycling rates are reported at just 40% (and, due to how exported plastic waste is currently managed, the real figure is likely to be considerably lower¹²). The European Environment Agency has observed increased environmental impacts when recycling waste is shipped abroad, including pollution, GHG emissions and leakage.¹³ The long and complex supply chain means these exports are susceptible to illegal shipments and discharge.¹⁴



European countries therefore urgently need to tackle both the consumption and disposal of single-use packaging.

¹⁰ What is the Triple Planetary Crisis? | UNFCCC

¹¹ Packaging waste statistics - Statistics Explained (europa.eu)

¹² <https://eia-international.org/wp-content/uploads/EIA-The-Truth-Behind-Trash-FINAL.pdf>

¹³ Review No 4/2020: EU action to tackle the issue of plastic waste (europa.eu) p.39

¹⁴ Review No 4/2020: EU action to tackle the issue of plastic waste (europa.eu) p.43

Policy Context

European Union (EU) policy is being developed to tackle these key environmental and societal concerns:

- **The European Green Deal (2019)¹⁵:** The European Commission (EC) shared its plan to be the first carbon neutral continent in the world. The triple aims are to have no net emissions of GHGs by 2050, decoupling economic growth from resource use and leaving no one behind.
- **EU Circular Economy Action Plan (2015 - updated in 2020)¹⁶:** The aim is to both reduce pressure on natural resources, and build sustainable growth and jobs in the EU. The plan involves 35 actions around circularity, waste and resource consumption. On packaging it involves a specific commitment to review the Packaging and Packaging Waste Directive (Directive 94/62/EC) with a focus on: *“driving design for re-use and recyclability of packaging, including considering restrictions on the use of some packaging materials for certain applications, in particular where alternative reusable products or systems are possible or consumer goods can be handled safely without packaging”¹⁷*. For HoReCa, there is also an action to improve the sustainability of food distribution and consumption, which includes looking at the substitution of single-use packaging, cutlery and tableware with reusable alternatives.
- **The European Green Deal Investment Plan and Just Transition Mechanism (2020):** Set up to mobilise financing for achieving the Green Deal and ensuring no region is left behind, by providing support and finance to regions, industries and workers who will be the most affected. Member States are preparing territorial Just Transition plans¹⁸.

- **European Strategy for Plastics in a Circular Economy (2018)¹⁹:** All packaging can be reused or recycled by 2030, however this does not include any quantified targets for reuse vs recycling.

Whilst this represents a serious commitment by the EU to tackle a wide range of environmental challenges, the above policies do not include specific actions or quantified targets on reusable packaging.

However, individual EU Member States are recognising the potential of targets as a mechanism to deliver on many of these aims. The following EU Member States have brought in legislation specifically directed at increasing reusable packaging with varying levels of ambition^{20,21}: Austria, France, Germany, Portugal, Romania and Spain. In addition, the following countries have called for reuse targets to be included in the context of the EU Packaging and Packaging Waste Directive: Austria, Denmark, Luxembourg, the Netherlands and Sweden.²²

Until more legislation is passed, action to develop reusable packaging will fall mainly to the private sector, on a voluntary basis. There are many cross-industry voluntary agreements (at both national and international level) aimed at reducing single-use packaging waste, but the percentage of reusable packaging remains woefully low. Indeed, voluntary agreements are now being shown to be ineffective at best and, at worst, a deliberate diversion tactic to avoid legislation²³.



15 A European Green Deal | European Commission (europa.eu)

16 Circular economy action plan (europa.eu)

17 EUR-Lex - 52020DC0098 - EN - EUR-Lex (europa.eu)

18 Financing the green transition: The European Green Deal Investment Plan and Just Transition Mechanism - Regional Policy - European Commission (europa.eu)

19 EUR-Lex - 52018DC0028 - EN - EUR-Lex (europa.eu)

20 The world is ditching plastics with reuse and refill laws and practices - Greenpeace International; Consumers Beyond Waste - Briefing Paper - National Reuse Policy - Public.pdf | Powered by Box

21 WeChooseReuse_EffectiveTargets_def.pdf

22 Joint Letter PPWD 31 Jan 2022[9] (politico.eu) & Attachment 2 to Joint Letter PPWD 31 Jan 2022[50] (politico.eu)

23 <https://www.dw.com/en/european-food-companies-break-their-plastics-promises/a-62622509>

Socio-Economic Impacts of Reuse

In many different scenarios, reusable packaging offers clear environmental benefits when compared to single-use alternatives. Additionally, if managed well, the wide-scale adoption of reuse could have socio-economic benefits, which are outlined in this section.

1. Impacts on Businesses

Many businesses are starting to look at reusable packaging systems to understand how, and at what scale, they become commercially viable.

A key issue that hampers the development of reuse is that the true environmental cost of dealing with single-use (often plastic) packaging waste is not adequately reflected in its price. It makes it so cheap that the entire supply chain has been engineered around it, reducing costs even further.

It is true that the addition of new reuse models can initially add cost into the supply chain in the short term (i.e. the investment in setting up new systems). However, in the long term, reuse can prove more economically viable at scale than the comparable end-to-end supply chain costs of SUP, and this will continue to improve as reuse becomes more mainstream.

Furthermore, there are clear business opportunities linked to reuse, with the following benefits²⁴ :

Developing new Business Models

When an industry is being disrupted, as is the case with reuse and the packaging industry, there's an opportunity, and a need, to design new business models. The Ellen MacArthur Foundation's (EMF) Upstream Innovation guide²⁵ is packed with case studies from around the world that show the breadth of innovation that is possible. This happens both within existing businesses and with new startups that are created to fill the gaps that emerge, for example in the areas of technology (e.g. Algramo), logistics (e.g. Uzaje) and packaging-as-a-service (e.g. Recircle).

“ WE’VE DONE SOME STUDIES THAT SHOW THAT, AT 30%, REUSE HAS REACHED A SCALE WHERE IT’S VERY COMPETITIVE WITH RESPECT TO SINGLE-USE PACKAGING. SO WE NEED THIS TYPE OF THRESHOLD. OF COURSE, THE COMPETITIVENESS VARIES ACCORDING TO DIFFERENT FACTORS INCLUDING TYPE OF PACKAGING SUBSTITUTED AND LOGISTICS.

Emmanuel Auburger,
Founding President, Uzaje

“ WE STARTED TEN YEARS AGO IN CHILE WITH A WHITE-LABEL PREFILL MODEL FOR SHOPKEEPERS. WITH THAT MODEL, WE HAD A BIG IMPACT ON MOM-AND-POP STORE OWNERS THAT HAVE A REALLY LOW INCOME, MOSTLY IN SANTIAGO. WE HELPED THEM TO DIFFERENTIATE FROM THEIR COMPETITORS, AND OFFERED THEM AN EXTRA INCOME.

José Moller,
Founder and CEO, Algramo

24 Reuse – rethinking packaging (ellenmacarthurfoundation.org) p.10

25 <https://plastics.ellenmacarthurfoundation.org/upstream>

Controlling Costs

The switch from single-use to reusable packaging across primary, secondary and tertiary packaging can:

- Cut packaging costs over the long-term as reusable packaging becomes an asset that can be depreciated over time.
- Optimise operations through pooled logistics (e.g. reusable packaging assets can be rented not purchased, reducing upfront costs).
- Enable businesses to protect themselves from unpredictable packaging costs, especially in the face of rising oil and raw material prices which are creating an external threat to supply chains.
- Cut transport costs by achieving efficiencies (e.g. better designed reusable packaging optimised for the supply chain uses space better leading to fewer lorry journeys, fuel consumption and CO2 emissions).



In Germany, PWC carried out an extensive study of environmental, economic and social aspects of certain beverage packaging formats²⁶. The research found that the economic aspects of reusable bottles in this specific context were complex and variable, involving different factors:

- Bottling plant machinery required different investment costs depending on whether it was for single-use or refillable bottles and, within those, whether they were PET or glass.
- Handling costs varied, but were generally higher with reusable packaging (due to reverse logistics) - eg. they were found to be 17% higher for refillable glass mineral water bottles, versus single-use ones.
- Packaging input costs varied, depending on the material type and whether it was reusable and, if so, how many times. Due to the lower number of units required, they found that reusable packaging resulted in lower packaging acquisition costs but this varied - eg. a 50% saving using refillable PET bottles vs single-use PET bottles, and a 90% saving using refillable glass bottles vs single-use glass bottles or a 70% saving if using refillable glass bottles for beer instead of cans.

Different use cases will therefore produce different economic results, but overall PWC concluded that reuse is particularly beneficial for smaller, regionalised beverage producers or for larger producers that have regional filling plants.

“ THE VERY HIGH GAS PRICES, BECAUSE OF THE WAR IN UKRAINE AND EVEN BEFORE THAT, MAKES ALL PACKAGING START TO BE VERY EXPENSIVE AND HARD TO FIND. AND SO, WE HAVE A LOT OF BIG INDUSTRIAL COMPANIES THAT NOW SEE BEYOND THE ENVIRONMENTAL TARGETS THAT THEY’VE SET FOR REUSE OR CO2 REDUCTION. THEY SEE THAT THIS IS A WAY TO CONTROL YOUR PACKAGING SOURCES, AND SO THERE’S AN ECONOMIC BENEFIT IN MOVING TO REUSE.

Emmanuel Auberger, Founding President, Uzaje

Customer Experience

There are some clear benefits for businesses engaged in reuse to improve interaction with their customers. For example, reusable packaging enables businesses to:

- Offer new customer propositions and enhance customer experience as both the look and functionality of the packaging can benefit from more investment when considered a long term asset.
- Offer personalisation, eg. scents or flavours, in a refill dispensing machine.
- Build brand loyalty and customer retention through deposit return systems.
- Gather intelligence on both customer preferences and how the system is performing when technology, e.g. if RFID is included in the packaging.

Benefits for SMEs

As outlined above, a study by PWC in Germany found that reusable packaging offered particular economic benefits for smaller regionalised drinks producers (or larger producers with smaller regionalised operations).

Feedback from the Netherlands Institute for Sustainable Packaging (KIDV)²⁷ also suggests that an existing reusable packaging pooled infrastructure (e.g. a shared set of assets) allows SMEs to easily slot into a system and realise the benefits without needing to make significant upfront capital investment. On the other hand, where there is no pooled infrastructure to benefit from, small producers may find it harder to adopt reusable packaging solutions as the upfront investment may present too much of a barrier.

Further research is required to confirm this; however, it seems likely that the benefits that come from purchasing fewer packaging units and accessing an established pooled infrastructure would also apply to small producers in other sectors, such as food and grocery producers. This is important because small and medium-sized enterprises (SMEs) make up a large proportion of the EU economy, accounting for two thirds of all jobs²⁸.



27 Getting started with Sustainable Packaging - KIDV

28 EUR-Lex - enterprise - EN - EUR-Lex (europa.eu)

CASE STUDY

Bower Collective

Direct-to-consumer business selling natural household products (both personal care and cleaning products) in reusable packaging, in the UK.

→ Current Scale

- In-house: 10 employees across leadership, retail, product development, technology, marketing and customer happiness
- Outsourced: packaging design (3) and manufacturing (unknown); order fulfilment and refill operations (approx. 10); technology design, development and data (3); waste management (unknown)

→ Growth Plans

- Confidential and likely to change as *"the business is founded on continuous innovation"*
- In future, once sufficient scale is achieved, ambition is to:
 - bring warehousing in-house
 - build an optimised customer refill operation
 - use technology and automation where it makes sense

→ Growth Enabled By

- Government funding from Innovate UK plus R&D tax credits
- £4.5 million in Venture Capital backing
- Customer demand: *"We've grown very rapidly, we've got over 100,000 customers (since starting in Jan 2020) and they're very loyal. People are super engaged with the mission."*

→ Challenges Faced

- High start-up costs including packaging design, operations e.g. QR scanning equipment, customer returns process
- No defined approach and regulation for reusable packaging
- Getting consumers to change their behaviour and return their packaging (current return rate approx. 40-50%)



2. Impacts on Workers

A key element of any Just Transition is the creation of fair and decent opportunities for workers, and there is evidence to suggest that the scaling of reuse will be a positive contributor to the job market across Europe.

Volume of jobs created

Several projects and studies have shown the job creation potential of reusable packaging at a local and national level, especially related to the beverage sector.

In Germany, the PWC study mentioned above analysed data from the Bundesverband des Deutschen Getränkefachgroßhandels (an association representing beverage wholesalers)²⁹. PWC compared the impacts from refillable bottles with single-use bottles recycled via deposit return scheme (DRS) and those recycled via curbside collections. The data showed that:

- Refillable mineral water bottling plants required 1.47 Full Time Equivalent (FTE) employees per million litres of water sold, whereas
- Single-use bottling plants required 0.27 FTE employees per million litres of water sold.

A more recent study carried out by the Union of European Soft Drinks Associations (UNESDA) and PWC to look at the economic impacts of adopting more reusable packaging in the European soft drinks industry³⁰ also predicts an increase in labour requirements. Although the exact quantity is not specified, additional jobs roles are expected at the following points: bottling production lines; wholesale and intermediate handling; retail and return points; transport and logistics.

In Catalonia, the ReWine project³¹ worked with local wineries to trial reusable wine bottles, identifying opportunities and barriers and analysing environmental, social and economic aspects. The ReWine project was unable to quantify the job creation potential of reusable wine bottles as many of their project partners did not report this data.

However those that did all reported an increase, ranging from 0.005 FTE in transport activities to 1.09 FTE in washing activities.

Circular Economy Portugal conducted a broader study³² looking at a number of reusable packaging formats for food and beverage containers in HoReCa, e-commerce fashion and household care in retail. As part of their analysis, they estimated the job creation potential at 50 FTE employees in warehousing and transporting roles per 120,000 units processed per day. They also forecasted further job creation potential in a scaled-up scenario based on reuse targets for these four product groups of 20% by 2027 and 50% by 2030 (p5): *“Social impact is also very positive, at various levels with job creation potential driven by reverse logistics models (washing, collection, inspection) being 185 and 613 new jobs by 2027 and 2030, respectively.”*

Several other recent studies have looked in depth at the job creation potential of the transition to a more Circular Economy; however, in the context of packaging, these generally look at increased recycling rates as opposed to reuse. For example, the European Commission carried out an analysis looking at the impacts from two Circular Economy scenarios (one moderate and one ambitious) across several sectors.³³ Their modelling resulted in overall increase in jobs for both scenarios (around 0.3% increase by 2030, or 650,000 - 700,000 jobs). However, they acknowledged that some activities such as reuse are cross-sectoral and involve activities that are not captured by traditional sectors, making the analysis of any labour impacts difficult. They also identified *“a lack of literature that considers the employment effects of the inner loops of the circular economy (i.e. reuse, remanufacturing, etc.)”*. (p.11)

This indicates that further detailed analysis is required to quantify reuse job creation potential across all categories, and more widely across Europe.

29 PwC-Study_reading_version.pdf (retorna.org)

30 <https://www.unesda.eu/reusable-packaging>

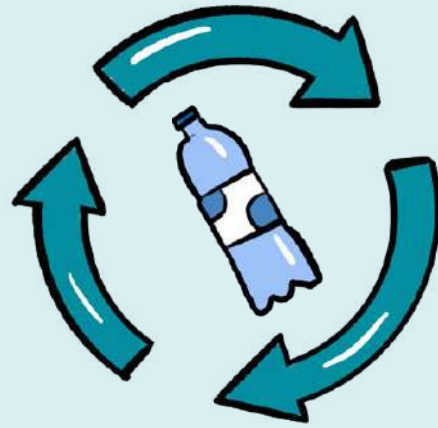
31 ZWE_Oct20218_Case-Study_Consumption-and-Production_reWINE.pdf (zerowasteurope.eu)

32 Packaging-Reuse-Systems_Study_Final_July2021corr.pdf (rethinkplasticalliance.eu)

33 Impacts of circular economy policies on the labour market - Publications Office of the EU (europa.eu)

Types of work impacted

Whilst specific numbers are unclear, a transition to reuse at scale in HoReCa and grocery retail will create some new jobs, and affect other existing jobs at points along the packaging value chain. In particular, reuse creates an additional set of reverse logistics activities, whereby used packaging is collected, cleaned and redistributed ready to be refilled with products for sale again.



THE PACKAGING VALUE CHAIN



1. Manufacturing

Through scaling up reuse, we expect to see a decrease in the amount of SUP required, and so there may be a reduction in the number of people employed in SUP manufacturing. This reduction should be mitigated, at least partially, by the creation of jobs in the production of reusable packaging, plus the equipment required to manufacture and handle it. It is likely that, in some cases, employees already working in the production of SUP will simply need to be trained in how to produce reusable packaging instead.

For example, new roles would be expected in the innovation, design and manufacture of:

- Reusable packaging formats, e.g. reusable cups, plates and containers
- Reusable packaging systems, eg. refill vending machines
- Filling lines for reusable packaging
- Washing systems for reusable packaging
- Handling and transport options for reusable packaging.

2. Filling

With reuse, the same packaging is filled again and again. If the collection, washing, returning and filling of packaging is entirely outsourced, the impact on in-house staff's roles would be very limited as products would arrive ready to be put on the shelves, similar to those sold in SUP. If these tasks are entirely in-house, this will demand extra labour hours and these are examined under 'Reverse Logistics' below. There's also likely to be a hybrid scenario, whereby staff may be responsible for some additional tasks but not all.

3. Service (Retail / HoReCa)

Taking payment for products will remain mostly unchanged, although staff will need to explain, collect and return additional payments if there's a deposit return scheme introduced. There may also be an additional short-term need to help customers to adopt new behaviours, such as returning used packaging or filling reusable containers.

Any need for extra assistance should lessen for everyone as reuse becomes more mainstream.

4. End-of-Life

One of the aims of scaling up reuse is to reduce the amount of both supply chain and consumer packaging waste produced. This could have a negative impact on the number of jobs in the waste management sector; however, it seems likely that wider circular economy goals of increased recycling would more than outweigh this. The European Commission forecasts an extra 650,000 to 700,000 jobs from the Circular Economy by 2030, with the vast majority of these being in waste management³⁴.

In addition, the waste management sector could have an important role to play in reverse logistics. Reusable packaging needs to be transported to washing facilities, and could feasibly be collected in similar ways to recycling (kerbside collection or DRS).



34 <https://op.europa.eu/en/publication-detail/-/publication/fc373862-704d-11e8-9483-01aa75ed71a1/language-en>

5. Reverse Logistics

Reuse requires a set of reverse logistics activities that are not relevant to SUP, including the collection, washing, redistribution and, in some cases, tracking of packaging.

Some existing businesses will adapt their operations to incorporate these new processes, which will have the effect of creating new jobs in-house. There are also many new startups being created to enter the market and fill the gaps. If reuse startups are able to successfully scale, they should create considerable job opportunities - including industrial roles involved in the logistics itself (see *Uzaje case study, page 18*), and also business support functions such as sales, marketing, operations, account management, human resources and finance.

6. Transport

Transport happens throughout the value chain and will almost certainly be impacted by the scaling of reuse. For example, minimal effects such as a driver who might have previously driven an empty lorry back to a manufacturer after a delivery may now have to wait for the lorry to be filled with returned packaging, ready to be cleaned and refilled. Waste management companies or couriers may need to transport reusable packaging collected from customers' homes.



CASE STUDY

UZAJE

Centralised collection, washing and redistribution of reusable food and beverage containers (France)

→ Current scale

- 2 washing centres in Paris and Avignon, creating 43 new local, industrial jobs
- 20% of all operators are people who have faced difficulties entering the job market ("L'Economie sociale solidaire")

→ Growth plans

- Open 6 more regional centres by 2024 (Lille, Nantes, Bordeaux, Toulouse, Lyon, Strasbourg)
- Create over 200 new jobs, servicing over 300 million containers
- 2030 target - 500 jobs, servicing 1 billion containers
- Aim for 50% of all operators to be from outside of the job market

→ Growth Enablers

- Long term contracts (e.g. a 2-4 year contract for washing stainless steel containers in Avignon) have given financial security to access grants & bank loans

→ Challenges faced

- Long sales processes for larger clients - e.g. 1.5 - 2 years for schools contracts
- Fragmented market - lots of sales conversations for relatively low value contracts
- Incoming regulation poorly communicated, causing delays to reuse
- Not enough reusable packaging available, which limits the market size
- Ecosystem is in its infancy - all parties need guidance and coordination

Location of work

Multiple life cycle assessments have shown that travel distances are a key determinant of environmental impacts. As an example, ReWine found that their reusable wine bottles should travel a maximum of 60km from winery to washing facility in order to out-perform a single-use bottle. Reuse should therefore be implemented locally in order to keep travel to a minimum.

In many cases, the transition to reusable packaging will involve setting up new washing or filling plants, so there's an opportunity to choose where these are located - for example, in post industrial areas that have suffered from closing down manufacturing and would benefit from the economic growth inherent in creating new jobs. Supporting the scaling up of reuse therefore offers EU member states a win-win: a reduction in resource use, emissions and packaging waste along with the stimulation of local job markets, and thus local economies.

An important factor to note is that, due to the global trend of high-income, high-consuming countries exporting their waste for supposed recycling, jobs in the packaging value chain do not necessarily stop at EU boundaries. Any changes in the current EU packaging, waste and recycling system could affect jobs located in other countries (e.g. waste industry workers in recipient countries including informal waste pickers in developing countries). Despite being very important to people's livelihoods and the current global recycling industry, these jobs are often subject to poor working conditions, both with regards to safety and remuneration. As such, policymakers should not aspire to maintain their current state, but instead focus on instituting robust Just Transition plans tailored to different countries and contexts.



The offshoring of plastic waste from higher to lower income countries without the capacity to manage it is an unethical practice characterised by exploitation and illicit activity. It should therefore be stopped, but this would not necessarily translate into job loss in the long-term. Exporting plastic waste results in domestic recycling capacity displacement, and if adequately supported, an export ban could in fact result in job gains through increased collection and sorting of domestic waste in recipient countries.

Reuse in the age of automation

Since the industrial revolution, there have always been concerns about machinery (and now robots and artificial intelligence³⁵) replacing workers. When it comes to scaling reusable packaging, it seems inevitable that the demand to run cost-effective and efficient businesses will involve the introduction of high-tech models over time. However, it's anticipated that far more manual intervention will be required for reuse than for single-use, at least in the short term.

“CURRENT REUSE SYSTEMS NEED QUITE A LOT OF MANUAL INTERVENTION, WHEREAS SINGLE-USE IS VERY AUTOMATED. FOR EXAMPLE, YOU MIGHT HAVE ONE OR TWO OPERATORS ON A MACHINE THAT PRODUCES 500 BOTTLES A MINUTE. THERE'S GOING TO BE A SHIFT OVER THE NEXT 5-10 YEARS AS THE REUSE MODELS BECOME MUCH MORE TECHNOLOGY-DRIVEN, BUT I THINK THERE'LL BE OPPORTUNITIES FOR PEOPLE TO STEP IN AND DO WORK THAT FEELS MORE EXCITING THAN OPERATING A MACHINE AT HIGH SPEED.

Tom Domen,
Global Head of Long Term Innovation,
People Against Dirty (Ecover & Method)

The actual relationship between automation and employment levels is very complex. On the one hand, automation replaces manual tasks and can effectively displace jobs. At the same time, automation can simplify tasks, make workers more effective, create new roles and even enable previously off-shored processes to come back to a country as they become more cost-effective³⁶. The World Economic Forum estimates that changes in automation may cause 85 million global jobs to become displaced between 2020-2025, and also that 97 million jobs may be created as a result of automation advances.³⁷

We can't truly assess the impact that automation will have on future reuse models, and the people employed within them. However, we do know that the new roles created through automation tend to require a higher level of skill than the manual jobs that are lost. It's therefore important to provide upskilling opportunities so that workers can benefit.

We may also find that other workers lose jobs, or see their roles change, through reuse automation, and so we need to encourage social dialogue and ethical business practices in order to manage this fairly. Furthermore, we know that manual roles in the reuse sector are a great opportunity to provide jobs and training opportunities, particularly to low-skilled people distanced from the labour market. This is, and has been, the focus of many social enterprises across Europe in recent decades - thus assisting workers who could otherwise lose their jobs and livelihoods.

Working conditions

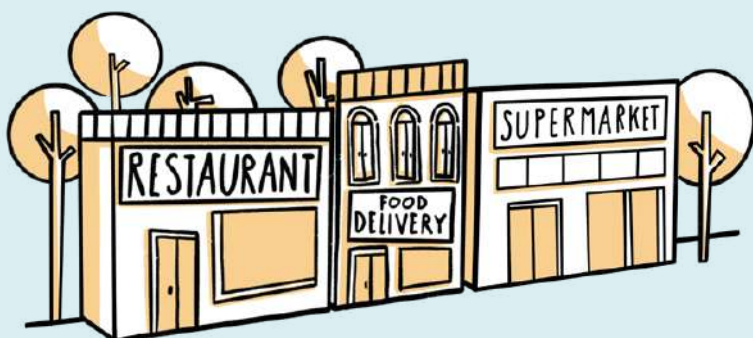
Creating job opportunities is not enough to guarantee a fair transition towards reuse. The work created should be 'decent work'; it should deliver dignity, equality, a fair income and safe working conditions, ensuring workers have a voice and are protected³⁸.

EUROFOUND, the European Foundation for the Improvement of Living and Working Conditions, examines a long list of job quality aspects in their European Working Conditions Survey. These include aspects of both physical and social environments at work, and the impact of work on the employee's quality of life and future prospects. There is potential for some of these to be affected by the scaling up of reuse:

1. Job satisfaction

If managed well, the scaling of reuse has the potential to increase workers' job satisfaction. A role in sustainability can give employees an increased sense of belonging and purpose in working towards a better environment, and a better future for them and their communities.

EUROFOUND conducted a Greening of Industry study³⁹ which looked at how to increase both the quantity, and quality, of jobs while protecting the environment. As part of this, they produced a series of case studies of 48 companies implementing green changes. Many of the companies reported that employees felt proud to have a green job, with improved self-esteem and job satisfaction. Several also described how employees were taking their new green knowledge into their community or to local schools, creating a knock-on benefit to the wider society.



36 Automation, employment, and reshoring: Case studies of the apparel and electronics industries (ilo.org)

37 Recession and Automation Changes Our Future of Work, But There are Jobs Coming, Report Says > Press releases | World Economic Forum (weforum.org)

38 Decent work (ilo.org)

39 Greening of industry | Eurofound (europa.eu)

2. Skills and personal development

Economies need skilled workers in order to generate wealth⁴⁰. Skills are widely recognised as one of the main drivers of productivity (although not the only one); a more highly skilled workforce delivers higher value work, contributing to economic growth. To successfully deliver a Just Transition to reuse, workers need to be equipped with the right skills and approaches. The implementation of reuse both requires, and can foster, a wide range of skills. These can be divided into four categories:

A. Knowledge-based, niche skills

Any industry transformation requires knowledge-based, niche skills and roles for product or system innovation. In the context of reuse, specialists in materials science and packaging technology are needed to innovate and produce reusable packaging that meets the needs of both brands and consumers, whilst still delivering the environmental gains. The technical requirements to scale-up reusable packaging provide an exciting challenge for all kinds of specialists to address, if they are given the opportunity to do so.



“ REUSE IS MORE COMPLEX THAN SINGLE-USE, AND CERTAINLY MORE REWARDING FOR EMPLOYEES. INSTEAD OF HAVING A FLOW OF RAW MATERIALS FROM NATURE TO THE BIN, YOU NEED TO MAINTAIN REUSABLE PACKAGING FOR AS LONG AS YOU CAN, AND THAT REQUIRES SPECIFIC SKILLS. IT'S A DREAM JOB FOR LOGISTICIANS AND ENGINEERS TO TRY TO SEE HOW WE CAN DO IT.

Julien De Beys,
Legal officer at the European Commission,
DG Employment and Social affairs



B. Vocational skills

Operating reusable packaging may require specific vocational skills around cleaning, handling and transporting. There is an opportunity to support the development of vocational educational and training (VET) programmes, which are very important in supporting the labour market⁴¹, since they help young people to enter, and existing workers to reskill or upskill. VET programmes are often flexible and designed to offer on-the-job training, so that workers can upskill alongside their paid employment.

CASE STUDY

SCOTLAND

Scotland's Transition Training Fund

Falling oil prices have led to increasing unemployment in Scotland's oil and gas industry in the last decade. As one way to address this, the Scottish government set up a £12m Transition Training Fund:

- Offers support and grants to help people retrain in growth sectors - e.g. HCV driver training, rail sector engineering training, specialist welding courses, wind turbine engineering courses, teacher training in STEM subjects.
- Available to anyone working in the oil and gas sector whose jobs were at risk, or who'd been made unemployed.
- 85% rate of success in finding a new job after retraining.

40 The Importance of Skills in Our Global Economy | World Bank Group; Relationship between skills and economic growth | Universal Basic Skills : What Countries Stand to Gain | OECD iLibrary (oecd-ilibrary.org)

41 Vocational Education and Training (VET) and Adult Learning - OECD

C. Transferable professional skills

The development and management of reusable packaging systems also offers an opportunity to develop a wide range of professional skills that are crucial to support strong economies⁴² and achieve sustainable development goals.

In their 'Future of Jobs Report', the World Economic Forum assesses what the jobs and skills of the future will look like. They produced a list of the top 10 skills⁴³ that will be required in 2025 (all of which sit under the categories of problem-solving, self-management, working with people, technology use and development). These skills can all be strengthened and developed whilst working in reuse, and are all transferable across multiple green economy sectors and indeed other sectors.

D. General sustainability skills

Many workers along the packaging value chain will find their jobs barely change as a result of the scaling up of reuse; however, their collaboration will be required to ensure its success. To enable this, they should be offered general sustainability training, underlining the importance of reusable packaging and their contribution to it.

General sustainability skills are not just important to individual workers or businesses. Sustainable development goals cannot be achieved without embedding sustainable behaviours across society.

3. Job security

If the legal and economic landscape for supporting reuse is uncertain, this can impact negatively on employment security as activities may be limited to short-term pilots and funding may be precarious. However, in the current economic climate, long-term prospects are uncertain in many sectors, including well-established ones.

Research also suggests that the less unionised a workforce is, the less resilient it is to any shocks⁴⁴ and workers in newer industries suffer from less representation.

4. Workers' health and safety

Reuse brings new logistics processes and technologies which may entail different health and safety risks for workers. For example, the cleaning of packaging could require new processes, hot temperatures and the use of chemicals. In addition, concerns were raised during the Covid-19 pandemic around risks of additional germ transmission with reusable packaging, specifically with customers refilling packaging themselves or handing it over to staff to be refilled. However, the same risk exists with single-use packaging and can be managed with standard hygiene practices, so should not be considered an additional risk⁴⁵.

It is important to note that the single-use, and notably the single-use plastic industry, also has significant health and safety risks. At both ends of its life cycle, the handling of plastic packaging is filthy work. Both plastic production and waste management (including recycling⁴⁶) involve serious health and safety risks that are a direct result of single-use culture. As UNEP says⁴⁷: *"Single-use plastic products may epitomise convenience, but with the damage they cause through production, distribution and litter, they are a major threat to environmental and human health."*

Overall it is unlikely that reuse will entail very significant health and safety challenges for workers; however, there is an added dimension where small businesses are concerned. In many cases, reuse is being driven forward by startups with limited resources, and they may require extra support and training around anticipating, and managing, health and safety risks.



42 Relationship between skills and economic growth | Universal Basic Skills: What Countries Stand to Gain | OECD iLibrary (oecd-ilibrary.org)

43 What are the top 10 job skills for the future? | World Economic Forum (weforum.org)

44 Restructuring: Do unions still matter? | Eurofound (europa.eu)

45 https://www.greenpeace.org/static/planet4-international-stateless/2020/07/0c3a6a32-health-expert-statement_updated.pdf

46 <https://www.hrw.org/report/2022/09/21/its-if-theyre-poisoning-us/health-impacts-plastic-recycling-turkey>

47 <https://www.unep.org/news-and-stories/story/how-reduce-impacts-single-use-plastic-products>

5. Accessibility and jobs in reuse

Similar to other sectors, there are challenges in ensuring that jobs in reuse are accessible to all, including workers with physical, mental or mobility impairments, older workers, and those that lack skills or have been out of work long-term. Often, specific groups can't take up positions as they are unable to perform the necessary roles as offered.

Within the reuse sector, social economy actors (e.g. a furniture reuse project) are often able to create job and training opportunities for vulnerable individuals distanced from the labour market, and should therefore be supported to ensure the inclusiveness of reuse systems.

All reuse businesses should, where practicable:

- Look to adapt workplaces to ensure people with all abilities can perform roles.
- Offer opportunities in specific roles (e.g. collection) to marginalised groups as a workplace opportunity.
- Take advantage of available government support to get people with disabilities into work - all EU countries have available support.

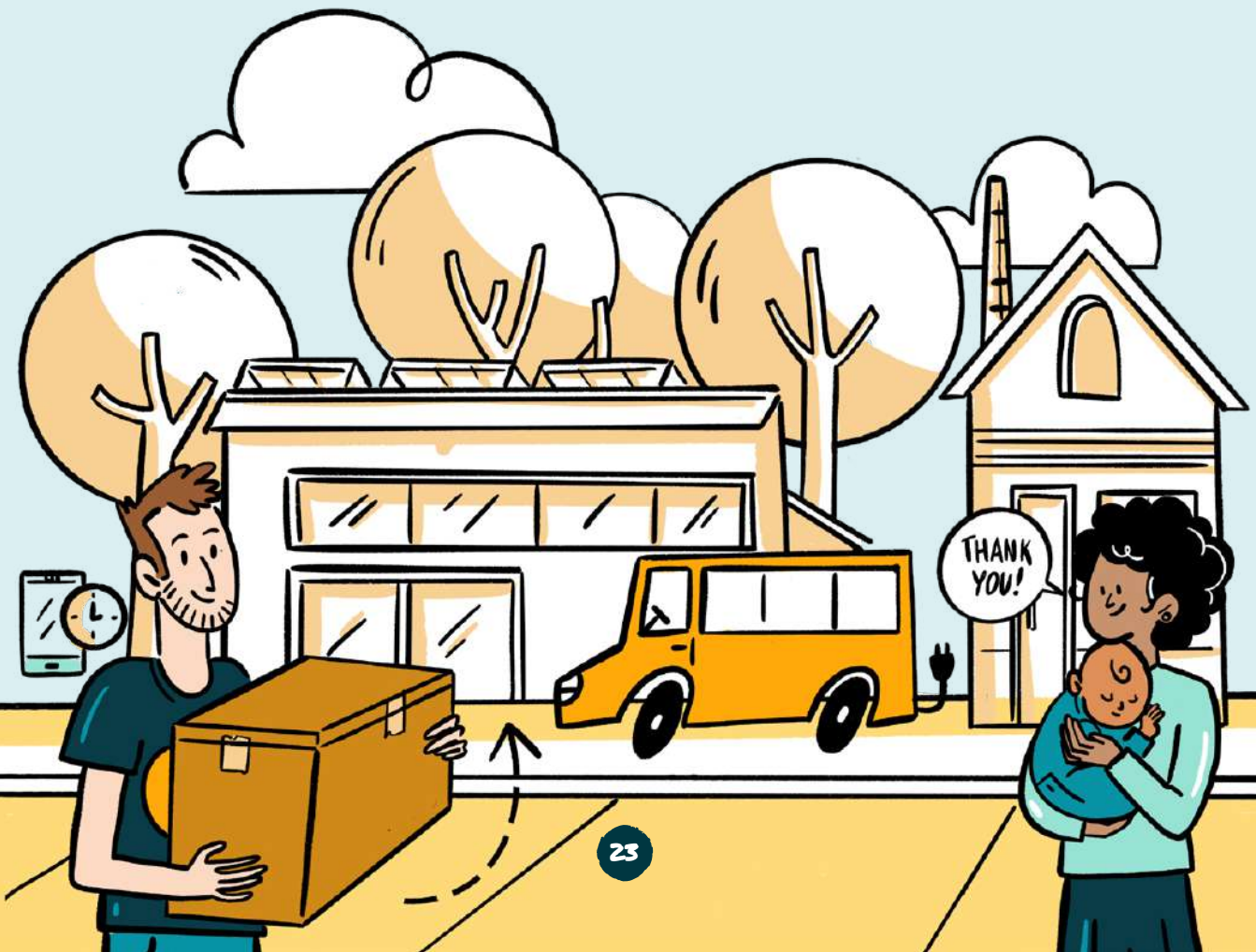
CASE STUDY

BEAUTY KITCHEN UK

A British start-up company offering ethically sourced products as both refills in-store and pre-filled into reusable bottles that can be returned for reuse. Beauty Kitchen's in-store refill dispensers also contain a return box for empty reusable bottles where consumers can leave their empty bottles for return & washing - either getting their deposits back or swapping for another pre-filled reusable bottle.

The company places accessibility at the heart of design, for example creating an accessible touchscreen where the information on the screen drops to wheelchair height for ease of use when refilling.

Beauty Kitchen has recently employed two new staff members with disabilities in their wash station facility by modifying the workplace to ensure it was accessible.



3. Impacts on Consumers

Any significant shift towards reuse represents a paradigm shift in how goods are packaged and delivered to consumers, requiring new infrastructure and re-learned behaviours.

Just Transition principles are based on fairness, and access for all. Reuse has potential socio-economic benefits but, for consumers, it involves different patterns of behaviour (e.g. returning reusable containers) and usage of equipment (e.g. using a DRS reverse vending machine), that may not be accessible for some groups.

Our research showed that, of the businesses we surveyed, almost none had actively considered consumer accessibility needs in the design of their products or services. Through the in-depth interviews, it became clear that this was not through ill intentions. Usually, it was a lack of awareness of prioritising accessibility needs within the many other challenges inherent in setting up a new reuse system.

In this section we look at different consumer and accessibility needs through different lenses:

- **Disability**
- **Technology**
- **Cost**
- **Availability**



Access for people with disabilities

Around 80 million people in the EU are affected by a disability to some degree⁴⁸ which represents 18% of the total EU population⁴⁹. Therefore, it is essential that proponents of reuse ensure accessibility when developing new systems - eliminating obstacles that pose problems for people with disabilities in using products, services and infrastructure, to ensure full and equal participation for all.

Legally, all product and system development must follow the framework set out in the European Accessibility Act (EAA) which is a single set of Accessibility requirements designed to eliminate barriers caused by a fragmented market across the EU. However, June 2022 was the deadline to transpose the EAA into national laws and, currently, only Austria, Belgium, Estonia and Finland have complied - furthermore companies now have another 3 years of transition period to apply the new rules and make the necessary changes (and micro-enterprises are excluded)⁵⁰.

Technology

There is an additional access challenge if new reuse systems rely heavily on technology for some consumers (e.g. the elderly) who either do not have access to, or don't know how to use, the technology. For example, all of the reuse projects we spoke to rely, to a greater or lesser extent, on apps that must be operated by a smartphone. Whilst there is much to be gained from this approach (e.g. removing friction from the customer experience which should increase participation), those designing reuse systems must be mindful of ensuring accessibility to those who are unable to use the technology.

48 <https://ec.europa.eu/social/BlobServlet?docId=14869&langId=en>

49 https://european-union.europa.eu/principles-countries-history/key-facts-and-figures/life-eu_en

50 <https://www.edf-fepb.org/23-member-states-are-running-late-with-the-european-accessibility-act/>

Price

Another key issue is ensuring price accessibility of products in reusable packaging compared to the single-use packaged alternative. If reuse is more expensive (either in the cost of the item, or the need to put down a deposit to use the system), it will exclude those who cannot afford to participate.

Whilst it's true that reuse systems are expensive to set up, evidence is starting to show that they should cost less to run compared to single-use based systems and those cost savings could, and should, be passed onto the consumer. Take the example of Al Gramo in Chile which, in the last 4 years has brought reusable packaging to 350,000 "bottom of the pyramid" (BoP) customers and has instilled a reuse culture in the BoP communities Algramo serves, shown by an increase in reuse rates have from less than 10% to 85%⁵¹.

Achieving scale is likely to be the key driver in ensuring that the cost of products in reusable packaging is no more than the cost of the same product in single-use packaging, making reuse accessible to all income demographics.

LATIN AMERICA IS NOT A PLACE WHERE YOU CAN AFFORD TO PAY EXTRA MONEY FOR SOMETHING SUSTAINABLE. I STARTED THIS COMPANY BECAUSE OF A SOCIAL PROBLEM, AND THEN I REALISED THAT IT WAS LINKED WITH A SUSTAINABILITY PROBLEM. WE ALWAYS BUILD OUR BUSINESS CASE FROM THE USER PERSPECTIVE FIRST: "HOW CAN WE MAKE THE PRODUCTS CHEAPER?" AND THEN WE BUILD UP THE BUSINESS MODEL ON THE OTHER SIDE.

José Moller,
Founder and CEO, Algramo

Availability

A final, and sometimes overlooked, area is that of availability. It is key to ensure that reuse is widely available across territories (i.e. not just in densely populated urban areas), and locating reuse facilities across territories will support this.

In many countries reuse is still a niche offer, and often goes hand in hand with products that sit at the premium end of the market e.g. artisan, organic, fair trade etc. which come at a higher price, sold in certain areas only. Whilst this is probably a natural part of the market in which to grow (as customers in this niche have enough disposable income to pay higher prices for products that conform to their ethical standards), now that reuse is becoming more mainstream, care must be taken to not just situate reuse at the premium end of the market - either in terms of the products themselves, or the locations in which they are made and sold.

Whilst these may seem like significant challenges, we must be cognizant of the fact that reuse needs to be re-established as the norm; therefore systems that seem less accessible now will become far more accessible as reuse grows and becomes more mainstream. An inability to reach 100% accessibility now should not be used as a reason to not develop reuse.

The key to ensuring accessibility for all lies in both standardisation, which enables systems to scale, as well as ensuring a diversity of end user experience (e.g. both low and high tech) to ensure accessibility to all.



51 <https://cl.linkedin.com/in/josemanuelmoller>

CHALLENGES + SOLUTIONS

There are many potential reasons why reuse in HoReCa or grocery retail may be less accessible, here we have outlined the key considerations, as well as potential solutions.

CONSUMER ACCESSIBILITY ISSUE	POTENTIAL BARRIERS	POTENTIAL SOLUTIONS
<p>Physical (e.g. visual, hearing, mobility impairments, or age related)</p>	<p>In-Store</p> <ul style="list-style-type: none"> → Location of equipment (e.g. upstairs, narrow aisles). → Automated systems - (e.g. the height of buttons, issues with touch screens). <p>At Home</p> <ul style="list-style-type: none"> → Badly designed reusable packaging at home (e.g. hard to open, close, handle). → Returning reusable packaging (e.g. hard to access return locations). 	<p>In-Store</p> <ul style="list-style-type: none"> → Consider all types of users when locating equipment, and ensure all equipment is wheelchair accessible. <p><i>Opportunity: The added experience of refilling and returning packaging increases dwell time and in-store theatre, as well as having the potential to provide a more social experience for customers.</i></p> <ul style="list-style-type: none"> → Ensure all touch screens are designed according to EU Accessibility Standards <p>At Home</p> <ul style="list-style-type: none"> → Better design of reusable packaging, and ensure testing with a wide range of users (e.g. well labelled, easy to open and close, lightweight materials). <p><i>Opportunity: As reusable packaging is typically considered a valuable business-owned asset, there is an opportunity to put more value into the design to make it more accessible.</i></p> <ul style="list-style-type: none"> → Ensure multiple, easy to access, return points that are wheelchair accessible and not just accessible by cars (i.e. household kerbside pick ups should be considered).

<p>Mental (e.g. cognitive impairments, or age related)</p>	<ul style="list-style-type: none"> → New behaviour (e.g. having to 'tare' a container before filling it). → Complexity of process (e.g. multiple steps). 	<ul style="list-style-type: none"> → Ensure clear instructional communications, and conduct user testing on consumers with different needs. → Plurality of reuse options (e.g. pre-filled salad box to pick off the shelf as well as the ability to fill up on the spot).
<p>Economic (e.g. consumers on low incomes)</p>	<ul style="list-style-type: none"> → The products in reusable packaging may cost more than the single-use alternative. → The reusable packaging system may cost more to access (e.g. additional deposits on top of the product price, income tied up long term in deposits, reuse systems based on smartphone technology). 	<ul style="list-style-type: none"> → Ensure products in reusable packaging are sold at the same price as, or cheaper than, single-use alternatives . → More considered design of deposit systems to ensure low income consumers are not financially excluded - e.g. instead of paying an upfront deposit, charge a penalty only for non-return (such as SwapBox in Belgium and the Netherlands). → Ensure products in reusable packaging are available in low income and marginalised communities.
<p>Digital (e.g. those unable to use systems due to lack of access to smartphones or inability to use technology)</p>	<ul style="list-style-type: none"> → Lack of understanding of how to use smartphone/ app based technology. → Lack of trust towards smart reuse systems (e.g. reusable containers using geo-locating RFID technology for tracking), concerns about privacy and the usage of their data. 	<ul style="list-style-type: none"> → Offer a plurality of reuse systems e.g. using non tech-based deposits such as the German beverage deposit system. → Ensure transparency and good communications from businesses offering reuse as to how consumers' information is managed and used (above and beyond General Data Protection Regulation (GDPR)).
<p>Education Campaigns (e.g. reuse/ behaviour change messaging)</p>	<ul style="list-style-type: none"> → Certain groups may not understand messaging. 	<ul style="list-style-type: none"> → Take into account people with additional needs when producing reuse communications and test on different users pre launch. → Avoid greenwashing to build trust.

4. Impacts on Communities

Reuse systems are at their most effective when operated locally, because transport distances need to be kept low in order to achieve the greatest environmental benefits. A knock-on effect of this localised approach is that more jobs are created if, for example, there are lots of smaller, local bottling plants than with one large centralised bottling plant (as the centralised option would benefit from economies of scale). More employment leads to higher consumer spending, which in turn brings a benefit to the local economy and, by extension, local communities.

In addition, if more businesses in an area are local businesses (typically SMEs) then more of the money they generate and spend is kept locally. This is the principle of the Local Multiplier Effect⁵² which states that SMEs are more likely to spend money on local services (e.g. local accountants or window cleaners), and these businesses / people are more likely to spend their money locally too, so every 100€ is worth more to the local economy than 100€. Conversely large, multinational companies are more likely to spend their money externally to the local area (e.g. using a multinational accountancy firm or corporate firm of cleaners) so every 100€ spent with a larger business is actually worth less than 100€ to the local economy because it 'leaks' out to externally provided goods and services.

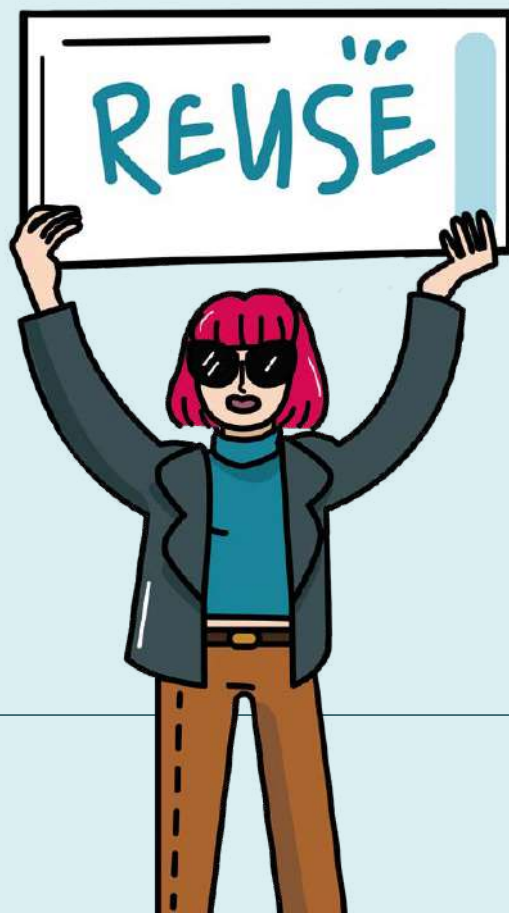
Stimulating local SMEs also brings an added benefit to consumers in that it tends to offer them a broader product range, involving specific regional goods. On the other hand, mass-produced products in single-use packaging tend to offer less diversity of product (although more flexibility when it comes to packaging types). Having a diversity of products not only offers consumers more choice, it is also important to support a cultural diversity of food and drink products not typically offered by large multinationals.

“

FOR CONSUMERS, A BROAD PRODUCT RANGE IS GENERALLY ADVANTAGEOUS. THE VARIOUS RETURN SYSTEMS FOR BEVERAGE PACKAGING IMPACT ON PRODUCT DIVERSITY TO DIFFERENT DEGREES... REUSE SYSTEMS, AND IN PART ALSO CLOSED-LOOP BOTTLES ("STOFFKREISLAUFFLASCHEN") ENABLE OR SIMPLIFY MARKET ENTRY FOR SMALLER AND MEDIUM-SIZED, MOSTLY REGIONAL BEVERAGE PRODUCERS AND, IN THIS RESPECT, HAVE A POSITIVE INFLUENCE ON PRODUCT DIVERSITY. ON THE OTHER HAND, SINGLE-USE BEVERAGE CONTAINERS ARE MORE FLEXIBLE WITH REGARD TO SHAPE, DESIGN AND SIZE.

PWC: Reuse and Recycling Systems for Selected Beverage Packaging from a Sustainability Perspective

”



52 https://en.wikipedia.org/wiki/Local_multiplier_effect

Conditions and Best Practice for Reuse

Our research showed that a number of important conditions must be in place in order to ensure that effective, fair and accessible reuse systems are developed, and these are detailed below.

Key Infrastructure Requirements

Reuse at scale cannot succeed without well-designed and managed infrastructure supporting it. The key infrastructure requirements for a well-designed reusable packaging system are:

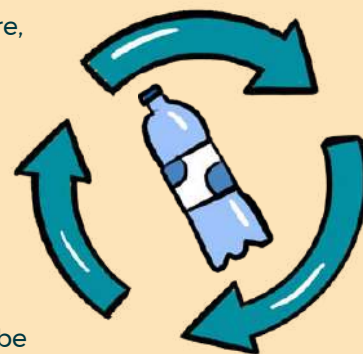
- The pool of reusable packaging itself (managed by a third party, or unmanaged)
- Return logistics (collection, sorting, cleaning & redistribution)
- Management of the incentive (e.g. deposit system).

Some of these return logistics activities will be implemented by the private sector (either new start ups or existing businesses); however some of this infrastructure would best be shared across industry and developed on a more systemic level.

Lessons from the German market show that where an existing return infrastructure exists (e.g. for the German beverage market), it is much easier for new entrants (e.g. startups or existing businesses wanting to expand into new product categories) to enter and scale faster, within that category. The challenge for other EU countries is that this level of infrastructure no longer exists so needs to be re-established, which is an added pressure on reuse in terms of cost and scalability. Indeed, even German companies have struggled to translate the success in beverages to other categories.

Although we have learnings from Germany on how a reuse system can work best (including well-managed pooling systems⁵³, incentives to return, and the need for good governance structures), more research is needed on what this infrastructure should look like. This should include research into the number, type and location of washing and reconditioning centres, and the necessary associated logistics and transportation required, which will vary from sector to sector. For example, the reWINE pilot project in Catalonia⁵⁴ offers a comprehensive blueprint for how refillable wine bottles could be implemented. Other such research would be helpful for different sectors, as well as at a cross-sector level.

A further level of complexity exists when attempting to maintain localised reuse (to achieve the necessary environmental and socio-economic benefits) in that it may be more efficient to keep reuse loops to certain areas and those areas may cross national borders. For example, it would be more efficient to send packaging to be washed from south west Germany to eastern France if there were a facility there, than to send it to the north of Germany. For this to be viable, the packaging and infrastructure must be standardised and interoperable between countries, so standardisation should be set at an EU level.



53 https://zerowasteeurope.eu/wp-content/uploads/2022/05/ZWE_-Pool-Systems-Policy-Briefing.docx.pdf

54 Rewine | reWINE

Certain conditions are needed in order to normalise reuse, give the private sector confidence to invest, and compel them to do so. These conditions are unlikely to happen organically without government leadership.

Strong government leadership and action, including at EU level, is required to signal to both businesses and consumers that everyone must play their part. Government commitment, in the form of binding legislation, can create a level playing field for all actors and lead to investment security.

The following criteria would encourage a fair scaling up of reusable packaging:

- A robust legislative framework that supports reuse.
- Available economic instruments that drive change.
- Communication and collaboration between all actors in the packaging value chain to create pooled reuse infrastructure.
- Standardised elements of reusable packaging systems (such as design, formats, labelling and deposit schemes) so that infrastructure can be shared within, and across, member states.
- SMEs encouraged, and enabled, to be part of the solution.
- Support for workers through the transition.
- As a theme that cuts across these criteria: a commitment to ensure reuse is accessible to all, regardless of ability, location, and income level.

Supportive Legislative and Policy Frameworks

The current legislative framework still incentivises single-use packaging, with legislation mostly designed to promote recycling; effective reuse systems cannot scale whilst this is the case.

Legislative measures around reuse should go hand-in-hand with packaging reduction measures, in order to ensure that the overall packaging footprint is reduced. This would also ensure that complimentary packaging waste prevention activities such as refill (e.g. through zero waste shops where customers bring their own containers to refill) are equally supported.

Some individual EU Member States have adopted legislation that specifically promotes reuse (Austria, France, Germany, Portugal, Spain etc), with varying levels of ambition; however, this could lead to fragmentation across the EU. Harmonisation between member countries would ensure that reusable packaging options are available to all citizens, and not restricted to certain geographical locations or socio-economic groups.



In order to ensure that effective reuse systems can be implemented, certain conditions must be met, focusing on EU-wide consistency in relation to:

→ Definitions

- Clear definitions are needed, including:
 - What is, and isn't, a reusable packaging system in terms of materials, durability and logistics.
 - Defining the essential requirements for the logistics (collection, cleaning and delivery) of reusable containers.
 - Defining waste in a way that does not hinder the development of reusable packaging systems, e.g. ensuring reusable packaging does not have any unnecessary restrictions in terms of movement or taxation.

→ Reuse Targets

- It is necessary to implement binding, quantified reuse targets which increase incrementally for the products and packaging formats within grocery retail and HoReCa where it makes the most environmental sense.
 - Clear targets across the EU avoid the market fragmentation that makes it difficult for businesses to invest - considering many supply chains are regional, transnational, or global.
 - Binding targets ensure that industry knows what it is expected to deliver within a level playing field.

→ Standardisation

- Standards for interoperability between the different reuse systems across the EU are necessary to give businesses the confidence to invest.

“ WE NEED POLICIES AND POLITICAL TARGETS SO THAT THE TRANSITION CAN ACTUALLY TAKE PLACE. SO THAT THERE IS INVESTMENT SECURITY FOR REUSE BUSINESSES, AND FOR PEOPLE THAT WANT TO INVEST. ALL OF THOSE THINGS ARE JUST BUSINESS DECISIONS. ”

Henriette Schneider,
Senior Expert Circular Economy,
Deutsche Umwelthilfe e.V.

Recommendations for Legislative Measures

1. Introduce harmonised reuse targets across the EU to direct legislation, give business investment security and ensure that reuse is available to all.
2. Define the essential requirements for reuse, with mandatory standardisation on key elements (e.g. packaging, washing, logistics) to ensure that reusable packaging systems are interoperable across member states and regions.
3. Review existing legal frameworks to:
 - a. Remove specific laws that prohibit sales of certain products in reusable packaging.
 - b. Ensure that current definitions of waste, and its management, support the scale up of reuse.

Actors across the reusable packaging spectrum (e.g. businesses, workers and social partners) should be part of the discussion on how to frame the legislation on reuse.



Economic Policies and Incentives

Access to finance

The economics of reuse are well proven in existing markets, as shown, for example, by the PWC study of refillable beverage containers in Germany, where the reduced number of packaging units required outweighed the process costs of washing and transporting.

However, this is not always the case, because:

- Different packaging formats will have different costs associated.
- There is a significant upfront investment required to establish new reusable packaging systems in countries where they do not already exist.
- The true social and environmental costs of many types of single-use packaging, pollution and waste, are not reflected in their price, which makes it extremely challenging for reusable packaging formats to be commercially viable now.

As such, targeted economic incentives are required for businesses to invest in long-term infrastructure projects to enable the transition to reuse, ideally ringfencing levies raised from single-use packaging to ensure financial support is available.

A good example is France's targeted reuse Solidarity Fund, designed "to support the creation of 70k jobs for the most disadvantaged groups by 2030. It will guarantee that 5% of the fees collected via Extended Producer Responsibility (EPR) schemes covering reusable waste streams (such as textiles, furniture and WEEE) are used to finance reuse activities conducted by social enterprises"⁵⁵. This is an excellent example of how to ensure economic incentives directly support the development of reuse, especially for marginalised communities.

A less successful example is the 2021 EU-led obligation that each member would contribute to dealing with non-recyclable plastic packaging waste⁵⁶. The implementation is left to each Member State, giving no guarantee that it will be passed onto the supply chain in order to create change (indeed, some Member States have chosen to absorb the costs into their national budget).

In addition, large private companies with sufficient funds could use their influence and financial position to offer competitive financing and economic support to smaller companies within their supply chains, in order to incentivise and facilitate the transition from single-use to reuse.

A comprehensive set of policy recommendations was made by Zero Waste Europe in May 2022 Creating a Policy Framework to Support 'The Transition to Reuse'⁵⁷ which drew on the findings from the Making Europe Transition to Reusable Packaging Report⁵⁸. These include recommendations on how the transition to reuse could be funded, for example Extended Producer Responsibility schemes should dedicate a minimum amount of their budget to promote refillables and finance reuse infrastructure.

When considering financial instruments to support the development of reusable packaging systems, it should be noted that:

- Reuse likely requires a longer time to get up and running efficiently. In developing enterprise policies and considering how to facilitate access to finance, governments should recognise that traditional venture capitalist routes may be too short-termist in this context. Longer-term 'patient capital' investments may be more appropriate.
- Specific regional policies could be targeted at setting up reusable packaging infrastructure in areas that would benefit from economic regeneration and new jobs, provided it still optimises environmental benefits.

55 https://www.rreuse.org/wp-content/uploads/France-to-create-a-Solidarity-Re-use-Fund_Final.pdf

56 Plastics own resource | European Commission (europa.eu)

57 https://zerowasteurope.eu/wp-content/uploads/2022/05/ZWE_-Creating-a-policy-framework-to-support-the-transition-to-reuse.pdf

58 <https://zerowasteurope.eu/library/making-europe-transition-to-reusable-packaging>



CASE STUDY

InnovateUK

InnovateUK, Smart Sustainable Plastic Packaging Fund - A £60 million five-year programme, the largest and most ambitious UK government investment to date in sustainable plastics research and innovation

→ What is it?

- SSPP's ambition is to establish the UK as a leading innovator in smart and sustainable plastic packaging for consumer products. This will drive cleaner growth across the supply chain, and deliver a dramatic reduction in plastic waste entering the environment by 2025

→ What are the aims?

- Funding and directing research and innovation to develop more sustainable plastic packaging materials and designs
- Stimulating collaboration and innovation in integrated circular supply chain
- Disseminating knowledge and learning from funded projects to shape and underpin the development of a more sustainable plastic packaging supply chain

→ Who is being funded?

- With seven funding competitions completed, the SSPP challenge now has a balanced portfolio of 57 projects, ranging from feasibility studies, academic research, business-led research and development (R&D) and late-stage large scale demonstrators

→ Industry & Government Collaboration

- The SSPP is a first-of-its-kind targeted state aid challenge which specifically asks for match funding by business (target £149 million). Indications are that it may raise in excess of £220 million in co-investment, demonstrating significant supply chain engagement and support. It is also contributing to the creation of new jobs and skills across the UK, supporting the green skills and levelling up agendas

Policies to support a Just Transition

If economic growth in reuse is to be fair and equitable, it also has to be underpinned by strong policies.

The International Labour Organisation (ILO)'s Just Transition guidelines⁵⁹ (developed to help countries manage the transition to a low carbon economy, and endorsed by ITUC⁶⁰, UNFCCC⁶¹ and many others) give a comprehensive framework for managing environmental transitions in a fair and inclusive way, leaving no one behind. In addition to the ILO's Just Transition Guidelines, there are a number of other useful documents when considering how to implement a fair transition when thinking about the shift from single-use to reuse:

- The European Commission's Just Transition Mechanism⁶²
- ITUC's 'A Just Transition - a Fair Pathway to Protect the Climate'⁶³
- ETUC's position for an inclusive European Green Deal⁶⁴
- IndustriALL Europe's 'Nothing About Us Without Us - A Just Transition Manifesto'⁶⁵
- The core principles shared within these guidelines should guide any policies developed to support wide scale adoption of reusable packaging.

Little is currently certain about which workers may be affected by the mainstreaming of reuse, or how their roles may be affected. As such, a thorough evaluation of this is required and, based on the results, policies should be developed to support those who are likely to be affected through the transition.

Impacts on workers must be identified and managed:

- We need to know where there may be potential impacts on actual job numbers (e.g. in single-use packaging manufacturing or waste management) and where dimensions of decent work may be affected (such as health and safety and rights to organise).
- Social dialogue and the rights to associate freely and collectively bargain must be protected so that workers and their associations can fully participate in designing, framing and implementing the transition they will be subject to. In the case of the EU's involvement in incoming global plastics treaty negotiations, it will be critical that diverse stakeholders including Indigenous and youth groups have opportunities for full access and participation.⁶⁶
- Underpinning all of this is the provision of adequate social protection for anyone likely to be affected through job losses or job relocation, whether this be via social security, income maintenance, job placement services or other.



59 Guidelines for a Just Transition towards environmentally sustainable economies and societies for all (ilo.org)

60 Boost for Climate Action as ILO Adopts 'Just Transition' - International Trade Union Confederation (ituc-csi.org)

61 Just transition.pdf (unfccc.int)

62 The Just Transition Mechanism: making sure no one is left behind | European Commission (europa.eu)

63 01-Depliant-Transition5.pdf (ituc-csi.org)

64 ETUC position for an inclusive European Green Deal | ETUC

65 637878839624413859_T manifesto short EN.pdf (industriall-europe.eu)

66 Plastic pollution treaty: agreement must include all workers in plastics life cycle - International Trade Union Confederation (ituc-csi.org); The International Labour Office welcomes the outcomes of the UN Environment Assembly (ilo.org)

A successful Just Transition to large scale adoption of reusable packaging could be achieved if the right government policies are in place, and properly supported and implemented. In particular, enterprise and skills policies are required to guide and support businesses through the transition and to ensure workers are equipped to make the most of it.

Enterprise policies should:

- Include appropriate economic instruments
- Provide businesses with training and change management support
- Encourage and foster innovation, facilitate discussion among businesses and between businesses, governments and social partners
- Particularly support SMEs and social enterprises to be able to fully participate in the transition.

Skills policies should:

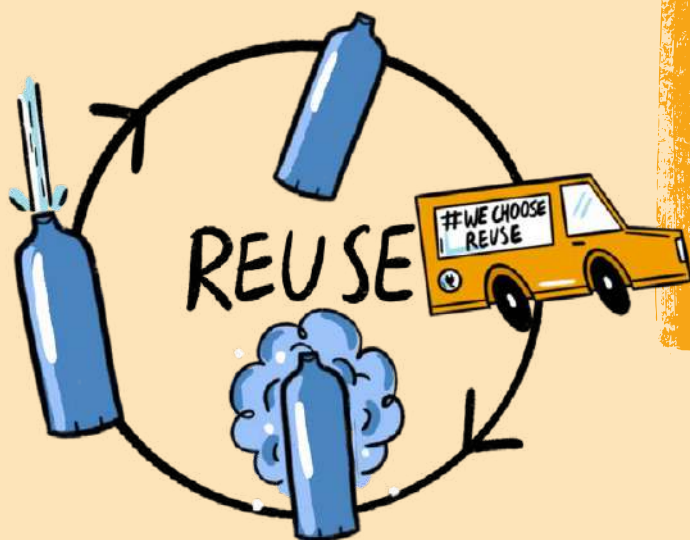
- Identify the required short and long term skills at all levels, including regionally
- Ensure collaboration with training institutions to offer appropriate training opportunities
- Particularly target at-risk workers.

Sustainable Procurement

Public procurement in favour of reuse can be a source of funding for companies offering reusable products and services, both directly and indirectly, as governments can act as a lead customer to bring in further business. It can also act as both a strong signal to industry and an awareness-raising tool for citizens.

The scaling of reuse could happen with more assurance if governments and larger businesses promoted the use of reusable packaging throughout their procurement initiatives, for example in catering, cleaning or stationery contracts which typically last for multiple years once awarded.

This could be done by promoting reuse on-site, through the provision of water fountains or on-site canteen facilities. Measures can be extended to manage activities in public spaces too, for example by specifying that reuse is the norm in planning applications for public and private city events, as is the case in the city of Rostock in Germany which has introduced reusable cups at major events including their Christmas Market and Hanse Sail maritime festival, as part of its Plastic Free City⁶⁷ initiative.



“ OUR MAIN SUCCESS IS TO HAVE BEEN ABLE TO SIGN LONG-TERM CONTRACTS. FOR EXAMPLE, FOR AVIGNON IN THE SOUTH OF FRANCE, WE HAVE A TWO OR FOUR-YEAR CONTRACT ON WASHING STAINLESS STEEL CONTAINERS FOR SCHOOL CANTEENS. THOSE CONTRACTS HAVE ALLOWED US TO GET BOTH GRANTS AND BANK LOANS BECAUSE WE'RE ABLE TO PROVE THE DEMAND.

Emmanuel Auberger,
Founding President, Uzaje

”

67 <https://plastikfreiestadt.org>



Recommendations for Economic Policies and Incentives

1. Access to finance
 - a. Create specific funds from ringfenced Extended Producer Responsibility (EPR) levies to finance the development of reuse infrastructure.
 - b. Support businesses to invest in reuse:
 - i. Facilitate effective ownership models and business development e.g. cost effective loans for capital expenditure (see case study on the Bower Collective, page 12).
 - ii. Build on existing Research and Development (R&D) funding models i.e. tax relief specifically given for undertaking R&D into reuse.
 - iii. Increase government funding for innovation through mechanisms such as targeted state aid (see case study on the InnovateUK SSPP fund, page 33).
 - c. Provide funding to reuse-specific support organisations that can build capacity within, and encourage collaborative working across, industry (see Collaboration & Communication Recommendations).
2. Policies to support a Just Transition
 - a. Conduct early employment vulnerability assessments looking at potential impacts on job numbers and aspects of decent work.
 - b. Engage in dialogue and amend collective agreements if required.
 - c. Develop enterprise policies that help businesses adapt, innovate and collaborate with a particular emphasis on supporting SMEs and social enterprises.
 - d. Develop skills policies focused on the required short and long terms skills, particularly supporting at risk workers.
 - e. Ensure opportunities for active participation in policy development by all social partners including developing regional policies, considering local contexts.
3. Sustainable Procurement
 - a. Governments and large organisations should introduce reusable packaging criteria into their procurement processes wherever possible (catering, cleaning etc).





CASE STUDY

ALGRAMO

Algramo - tech-enabled refill vending machines and smart reusable packaging, in Chile and the UK.

→ Current Scale

- Over 100 refill machines & 80 employees across Chile and the UK
- 50% in tech (software and hardware)
- 50% in design, growth, marketing & new business
- Collaborate & outsource as much as possible, e.g. design team, warehouse, tech

→ Growth Plans

- Target of 20-30% market share
- No. of jobs have not been defined
- In-country teams - most roles in commercial & logistics/operations

→ Growth Enablers

- Funding from Startup Chile - 2 grants of approx. \$100k
- Other investment (total \$11.5m) - crowdfunding, angel investment, venture capital
- Benefit in being a first mover - developed and proved the solution in Chile first

→ Challenges Faced

- Long sales process
- Integrating with the existing supply chain
- Decision makers cautious to invest in disruptive innovation
- Lack of supportive regulation to encourage reuse

Mainstreaming Reuse - Collaboration and Communication

Due to the proliferation of single-use across grocery retail and HoReCa over the past fifty years, the cultural memory of reuse has been lost from most mainstream businesses and consumers.

However, there is clearly a new group of existing businesses wishing to add reusable products and services to their offer reuse-focussed start-ups keen to enter the market and consumers looking to use reusable products and services. Often, a lack of knowledge and information hinders their ability to deliver, or access, reuse.

Therefore, there needs to be improved information dissemination, communication and collaboration between governments, businesses, consumers and social partners in order to reinstate reuse as “business as usual”.

For businesses

Businesses, both existing and new, would benefit from information and support to scale reuse in a fair and inclusive way, including:

- **Access to information on best practice.** For example, defining the essential requirements and providing guidelines for reusable packaging design and materials, incentive systems, logistics for collection, and cleaning and delivery of reusable containers.⁶⁸
- **Access to forums for cross-industry knowledge exchange.** For example, an understanding is required of how businesses can share infrastructure whilst maintaining competitive advantage, especially if they've spent considerable time or money developing it (see case study on the Bower Collective, page 14).

- **Membership of reuse-specific associations or organisations** such as [Planet Reuse](#), [Reseau Consigne](#) or [New Reuse Alliance](#), which need support and funding to become established and deliver benefits to reuse actors across the EU (e.g. the above information sharing and forums to foster collaboration).

For Consumers

There is still a significant amount of awareness-raising that needs to be done to bring reuse to the front of consumers' minds, and help them access it:

- Information sources on ‘where can I return, or refill, my packaging?’ which could take the form of branded campaigns encompassing public websites, apps and window stickers in venues indicating that packaging can be returned.
- At both an EU and a national level, this could take the form of developing innovative campaigns similar to Plastic Free July⁶⁹, European Week for Waste Reduction⁷⁰ or World Refill Day⁷¹ engaging consumers in the concept of reuse. At a regional or local level, additional targeted support could be given to local businesses to promote EU and national campaigns.

“ IT WOULD BE GREAT TO GET CENTRAL AND LOCAL GOVERNMENT SUPPORT ON BEHAVIOURAL CHANGE, AND PROMOTING REUSE ON A NATIONAL SCALE IN A WAY THAT WE JUST DO NOT HAVE THE MARKETING OR PR BUDGET TO ACHIEVE. IF THEY COULD GET BEHIND WHAT WE'RE DOING AS A KEY INITIATIVE IN THE FIGHT AGAINST WASTE, THAT WOULD BE TREMENDOUS. I CAN'T SEE IT HAPPENING THOUGH BECAUSE THE GOVERNMENT STILL LEADS PEOPLE TO BELIEVE THAT RECYCLING WORKS. THERE'S AN INHERENT CONFLICT OF INTEREST.

Nick Torday,
Co-founder and CEO, Bower Collective

68 <https://zerowasteeurope.eu/library/reusable-packaging-and-covid-19/>

69 <https://www.plasticfreejuly.org>

70 <https://ewwr.eu>

71 <https://www.refill.org.uk/world-refill-day/>

Recommendations for Communication & Collaboration

1. Encourage existing, and new, reuse-specific support organisations that can:
 - a. Share best practice information, including:
 - i. Guidelines for reusable packaging design and materials, incentive systems, collection, cleaning and delivery of reusable containers.
 - ii. Advice on how to embed Just Transition principles within the development of reuse systems to ensure fairness for all.
 - iii. Ensure questions of accessibility are at the heart of developing new systems so that all actors in the reuse sector actively identify barriers and remove them during the design process.
 - b. Carry out wider, and more systematic, research into the infrastructure requirements (at EU and national level) for reuse to thrive, including what reuse infrastructure should look like, how national borders will be managed and how it should best be funded.
 - c. Foster cross sector collaboration to set up reuse systems and pooled infrastructure.
 2. Develop awareness-raising campaigns promoting reuse amongst consumers and businesses in order to re-establish reuse as the norm over single-use, taking care to ensure messaging that is inclusive for all citizens.
- All activity should span local, regional, national and EU level networks.



The Role of Social Enterprise in Reuse

Reusable packaging systems implies a transformation of the ways we produce and consume our food and drinks and should lead to positive environmental impacts all along the value chain. However, the environmental preoccupation cannot be the sole driver of this transition; new reuse systems need to define strong social ambitions as well. Indeed, at the heart of the transition stands the employment shift that entails the creation and promotion of green and transferable skills.

Hence, the transition needs to go hand in hand with the development of decent and fair jobs; meaning, adequate wages, training opportunities, safe working conditions, job security, reasonable career prospects, and worker rights. But this ambition alone doesn't lead to a fair access to job opportunities for all. The job market is structurally set up to disadvantage groups of people whose social, demographic, and/or physical characteristics are barriers to pursue fair and decent jobs⁷².

In short, action must be taken to ensure a Just Transition, leaving no one behind. Otherwise, the transition to a circular economy could risk worsening socio-economic conditions for already vulnerable groups – and creating trade-offs between social and environmental goals that undermine public acceptance. To deliver a Just Transition, social economy's principles and practices can be served as a case to fight for a more inclusive circular transition.

Social enterprises are organisations whose main objective is having a positive social and environmental impact. To do so, they engage in market-based operations (providing goods and services) in an entrepreneurial and innovative way – but use the commercial income to achieve social and environmental objectives.

Historically, social enterprises are a direct response to societal challenges and needs. In a society with increasing inequalities and where profits and labour productivity are prioritised over social inclusion, social enterprises focus on benefitting society based on:

→ Job creation

Social enterprises prioritise labour-intensive activities in a variety of sectors including sectors like the food industry, reuse and repair, gardening, cleaning, construction, manufacturing, recycling, waste management and assembling components. Social economy operators aim to compensate the fact that the employment intensity of the actual growth model is low⁷³, thus providing job and training opportunities notably to the most marginalised in society. This strategy is in direct opposition to capital-intensive projects which employ fewer people⁷⁴.

The contribution of the social economy in creating and maintaining jobs is major. In 2016, social economy jobs accounted for 6,3% of the European working population (13,6 million of paid jobs)⁷⁵.

72 Économie Sociale et Solidaire : Notre Chemin Commun vers le Travail Décent, page 89

73 The Contribution of the Social and Solidarity Economy and Social Finance to the Future of Work, page 22

74 Idem

75 The EU Pact for Skills – Skills partnership for the Proximity & Social Economy Ecosystem, page 2

CASE STUDY

IRELAND

Job creation: the example of Charity Retail Ireland

Charity Retail Ireland is the umbrella organisation for charities in Ireland operating shops to fundraise for their causes, ranging from large charities to local, community-based organisations. These shops collect a very wide range of items such as furniture, clothes, books, electrical appliances and more. These goods are sold in 500 shops nationwide.

These activities generate added social value – €42 million of social impact, taking into account the value of volunteer work and the benefits of labour activation programmes. In 2020, Charity Retail Ireland employed 600 people and collected 14,775 tonnes of products (equal to the weight of a fleet of more than 1,000 buses), thus creating 40,6 jobs per 1,000 tonnes of products collected with a view of being reused. Moreover, Charity Retail Ireland engaged 8,000 volunteers in its activities.

→ Social inclusion

The social economy is a large and diverse sector and does not exclusively target disenfranchised groups. However, most social enterprises facilitate the labour market integration by providing job and training opportunities for those furthest from the labour market, thus creating local and inclusive employment as well as a sense of belonging for the most vulnerable.

Employability is not the only positive effect: earning an income unlocks opportunities and abilities to take part in society and facilitates access to affordable energy, housing, health services, education, and other basic goods and services.

In the context of implementing reusable packaging systems, social enterprises show added value that would guarantee a Just Transition for vulnerable groups and hence the society at large:

→ Circular skills

The particularity with reuse systems is that they are labour-intensive and mostly require manual skills to extend the lifespan of what is already made, compared to the current mass-manufacturing linear practices. The activities that come along with reuse processes (collecting, maintaining, repairing, upgrading, transporting, sorting and remanufacturing) will ensure a provision of jobs throughout the life of a product.

One of the propositions to support the building of circular skills is the provision of on-the-job training courses to facilitate the inclusion of disadvantaged people with the necessary capacities and competences. These activities ensure the continuity of circular skills which will be needed to scale up the circular economy in packaging reuse systems.

CASE STUDY

BELGIUM

Professional qualifications in the circular economy

Les Petits Riens' Horizon center was created in 1993 thanks to the Horizon program of the European Commission. It offers socially disadvantaged people in Brussels the possibility of acquiring a professional qualification as a technician in large household appliances and in electromechanics, thus enabling them to develop vocational and employability skills and fostering circular skills. This training itinerary has an overall duration of 1,850 hours, split into 700 hours of theoretical training, 1,000 hours of practical training in a workshop, and 150 hours in a traineeship.

→ Local development

Social enterprises are key local economic actors that strengthen their communities. They provide jobs that are accessed by local people who can use their purchasing power on local goods and services. In addition, they bring products back to the market at affordable prices providing essential household items to low-income groups – and thus allowing them to benefit from the transition to a circular economy.

By ensuring the role of non-relocatable jobs provider, social enterprises have a direct impact on the accessibility and affordability of the provision of goods and services, which is a favourable element in the developing of social cohesion⁷⁶.

→ Impacts on local communities

The social economy contributes to the transition not only by promoting inclusive solutions but also by responding to other societal issues like food sovereignty, accessible housing, supporting elderly people and providing accessible and quality health care.

Social enterprises have strong local roots, driving local development by serving their community, employing the local population, and reinvesting their economic gains in continuing their activities.

SPAIN

Providing basic goods to vulnerable individuals

Formació i Treball has developed partnerships with local social welfare services to give assistance to very vulnerable people. The purpose of these programs is the provision of basic goods (food, clothes and furniture) to vulnerable individuals.

Therefore, Formació i Treball collects and prepares for reuse, clothes and furniture to be delivered with dignity to low-income groups. To prevent stigmatisation and deliver the goods with dignity, these individuals can go to any of the shops, choose their favourite products, and pay with a code by which the local social welfare service will reimburse Formació i Treball. This system safeguards access to basic goods whilst providing choice, dignity, and anonymity to those who needed. In 2021, 12.767 people have been beneficiaries of the free delivery of second-hand clothing and furniture.

For decades, social enterprises have been active in key circular activities in sectors ranging from textiles, furniture and electronics to food distribution and composting. They focus on offering new skills training, work experience and social engagement for those who most need it which can enhance peoples' future job prospects whilst at the same time developing their confidence, soft skills and sense of worth.

Supporting the work on skills of social economy actors, among which social enterprises running circular activities, is thus fundamental to achieving the green transition in a way that is fair and inclusive.

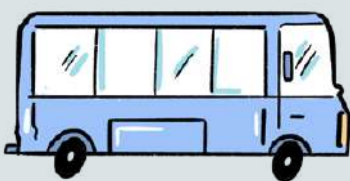


Recommendations

In 2022, RREUSE published a position paper to the European Social Economy Action Plan (SEAP), a policy framework that will run until 2030 aimed to support and mobilise the full potential of the social economy⁷⁷. The key recommendations for effective implementation are relevant in the case of reusable packaging.

Economic policies and incentives

- Boost the availability of funding avenues for the circular and social economy. Access to funding is fundamental for the creation and development of social enterprises. The capacity of local social enterprises can be stimulated by promoting relevant fundings, reinforcing partnerships, supporting EU networks active in the areas of microfinance and social enterprise finance.
- Dedicate adequate funds for circular skills. Due to the different legal status, their different sizes, and lack of visibility, social enterprises often struggle to come across relevant funding and business opportunities. Adequate funding is crucial and to be provided to support such actions and to ensure the large diversity of social economy actors have the potential to benefit from such opportunities.
- Earmark a portion of funding to social enterprises involved in these circular activities and other social economy actors. Social enterprises are faced with a lack of capacity when it comes to funding. The processes are onerous, and structurally favour larger organisations with the resources and internal capacity to dedicate to responding to new tenders⁷⁸. Earmarking a portion of relevant funding will guarantee that a fixed amount of European budget will be funnelled to the social and circular sector.



Supportive legislative and policy frameworks

- Ensure effective implementation of social clauses and reserved contracts in public procurement procedures related to reusable packaging. Consider mandating 50% of these tenders to circular social enterprises, thus safeguarding their vital role in the just transition.
- Promote social and employment targets when designing policies to promote reusable packaging, for instance, by including local employment rate as a requirement.
- Set fit-for-purpose labour market integration policies that facilitate the development of skills, e.g. prolonging the maximum duration of work placement programmes thus allowing social enterprises to create longer integration and training pathways and other norms that can promote circular skills development.
- Create, formalise and integrate circular skills development programmes for reusable packaging. A participatory approach should be taken when designing these programmes, involving circular social enterprises, and promoting partnerships with other actors.

'Mainstreaming Reuse' – Collaboration

- Recognise social enterprises as key partners providing circular skills training and reducing inequalities, by prioritising manual skills over automation. Work integration social enterprises are active in the field of skills development with a focus on up- and reskilling.

77 A Plan for a Fair and Inclusive Circular Transition Led by Social Enterprises

78 Five reasons why procurement isn't working for social enterprises and what this means for social investment

CASE STUDY

ITALY

Marche's reuse training initiative

The region of Marche in Italy will develop a training course in the reuse sector. The course will form a new professional figure which is currently absent in the region. It will focus on various subjects and skills such as selecting and valorising items delivered to the centre to be reused or prepared for reuse or how to improve the relationship with citizens.

- Provide business support for scaling up social enterprises and their partnerships with private companies. Social enterprises are often excluded from business opportunities and this means so are impactful solutions for the circular economy. Because they engage in similar lanes of activities and because they are often partly subsidised, social enterprises are often seen by private companies as unfair competition.

However, relations with the private sector may be collaborative:

- when they found a common ground in training in circular skills and hence raising the employability status of potential employees for the private sector⁷⁹.
- when the partnership stands on an equal footing and partners share the same values⁸⁰.

The social economy sector can also be a reminder that a path towards implementing automation processes in an inclusive way exists.

CASE STUDY

BELGIUM

BrefurbiSH: Increasing efficiency of refurbishing process

Circular.Brussels and BSH started in 2021 the BrefurbiSH project for increasing the efficiency of the refurbishing process of household appliances through advanced data analytics and cognitive and assistive operator support.

Data extracted during the refurbishment can be used to automatically build a refurbishing guideline that is needed to train new target group employees. The traditional refurbishing infrastructure will be enhanced using advanced data analytics and cognitive and assistive operator support.

- Increase support to social enterprise networks, enabling the exchange of best practices and knowledge to achieve common goals. Networks are essential to share best practices and peer-to-peer support on multiple levels, to create partnerships, to liaise with the national managing authorities, to gather relevant data, to ensure well-designed policies, and to promote and represent the sector⁸¹. Regional networks allow for an inclusive capacity building adapted to the diversity of social economy entities. In return, social enterprises can see an enhancement of their activities and their innovation and receive better visibility.



79 Social Economy Entrepreneurship and Local Development, page 24

80 Five reasons why procurement isn't working for social enterprises and what this means for social investment

81 Research Study on Developing Re-Use Networks in Europe, page 3

Conclusion

The focus of this research was to look beyond the environmental benefits of reusable packaging, to the socio-economic benefits for workers, businesses, consumers and communities.

In our research, we outlined a scenario in which 30% of packaging in grocery retail and HoReCa is delivered through reusable packaging systems by 2020 - remembering, however, these systems need to be re-established in most EU member states.

The scale of this challenge is unprecedented, yet necessary, if we are to tackle the social and environmental problems that arise from our reliance on single-use packaging.

The time to take decisive action is now, given the current work being done by EU policy makers with regards to the Circular Economy, Green Deal and strategies to deal with plastics.

Our research suggests that a transition to 30% reusable packaging for grocery retail and HoReCa could have a positive impact on workers, jobs, businesses, consumers and communities. However, it is unlikely that the transition to reusable packaging at scale will occur organically. A Just Transition to reuse needs targeted support through effective policy making and further research to ensure any decisions are based on sound evidence.

If managed well, a Just Transition to reusable packaging is an opportunity for grocery retail and HoReCa to be part of green recovery plans, to attract investment, and for the work of employees in these sectors to be better valued going forwards. It's also an opportunity to improve the consumer experience by putting accessibility at the forefront and ensuring reuse is designed from the start in an inclusive way, accessible by all.



Glossary of Terms

- **Carbon footprint** - the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by an action, an individual or a community.
- **Circular Economy** - a sustainable economic system that decouples economic activity from the consumption of finite resources, and is underpinned by a transition to renewable energy and resources. A Circular Economy is based on three principles: the elimination of waste and pollution, circulating products and materials at their highest value and regenerating nature.
- **Deposit Return System (DRS)** - a scheme that works by charging a deposit fee at the point of purchase, which is refunded to the purchaser when the bottle is returned via a specifically designed system. It can apply to both single-use and reusable packaging.
- **End-of-life** - the 'end-of-life' phase of an item comes when a consumer no longer has a use for it and disposes of it. Depending on the item, a number of end-of-life scenarios are possible, such as incineration or recycling.
- **The European Green Deal** - the EU's growth strategy in order to transition to a sustainable economic model, approved in 2020. The overarching objective is for the EU to become the first climate neutral continent (balancing the carbon it emits into the atmosphere with the carbon it removes) by 2050, resulting in a cleaner environment, with more affordable renewable energy, better public transport, more jobs and an overall better quality of life.
- **Green jobs** - jobs that have a positive impact on the environment either directly or indirectly, and are required for a more sustainable future. For example, jobs in reuse, recycling, renewable energy, circular design and environmental education.
- **Green recovery** - economic recovery policies and solutions that also aim to achieve climate change and sustainability goals. For example, investing in industries such as renewable power, clean transport and sustainable agriculture. The Green Recovery was a key theme for governments in the height of the Covid-19 pandemic, and should underpin long-term economic recovery plans to ensure a sustainable future.
- **Low carbon economy** - an economy that causes low levels of greenhouse gas emissions compared with today's typical carbon-intensive economy.
- **Packaging types**
 - Primary, or customer, packaging is the packaging that contains the product itself, e.g. a reusable glass milk bottle (or in the case of single-use packaging, a single-use bottle of milk, including a label, cap and seal).
 - Secondary packaging holds together multiple units, e.g. a reusable crate that holds multiple bottles of milk (or a single-use cardboard box with dividers that holds bottles of milk).
 - Tertiary, or transit, packaging is used to transport larger quantities efficiently, e.g. a reusable pallet with straps holding multiple crates of milk (or a stretch-wrapped single-use pallet that holds multiple cardboard boxes).

- **Patient capital** - longer-term investments whereby investors are prepared to wait a considerable amount of time before seeing any financial returns and typically have a higher tolerance for risk. In this context, businesses are able to focus on maximising their positive social or environmental impact over the longer-term, rather than maximising immediate financial returns for shareholders.
- **Pool system (managed)** - a reusable packaging system consisting of one or more defined “return from home” or “return on the go” containers that are:
 - Jointly used (“shared”) by a defined set of producers/packers either on a regional, national or cross-border/European level
 - Working within an institutionalised governance structure
 - Comprised by a set of standards and rules, the basis of which guarantees the free movement of the packaging among all pool participants and relevant stakeholders (e.g. trade).
- **Pool system (unmanaged)** - a reuse system that uses some sort of standardised system or packaging but without central governance.
- **Reverse Logistics** - in the context of reuse, this is the process whereby used packaging is collected, cleaned and redistributed ready to be refilled with products for sale again.
- **Value Chain** - the various business activities and processes involved in creating a product. In the context of reuse, this includes everything from the design and manufacture of packaging to its disposal, or ideally, reuse.
- **Waste Hierarchy** - a tool used to evaluate waste management processes that protect the environment alongside resource and energy consumption. Prevention is at the very top (most favourable) followed by minimisation and reuse. Disposal is at the bottom (least favourable).



Appendix I:

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Appendix II: Interviewees

We carried out eighteen one-hour structured qualitative interviews with stakeholders and experts across the reusable packaging value chain:

Established Businesses	Reuse Startups	Public Sector & Associations	3rd Sector
<ul style="list-style-type: none"> → Ellen Seyda, Circular Economy Manager, Berry Global Ltd → Michael Archer, Customer Collaboration R&D, CHEP → Tom Domen, Global Head of Long Term Innovation, People Against Dirty (Ecover & Method) → Maria Vera Duran, Project Officer, EURIC → Tommy SeeTho, R&D Packaging Lead & Antje Shaw, Supply Chain Manager, Nestlé → Head of Packaging, Large UK Grocery Retailer (requested anonymity) 	<ul style="list-style-type: none"> → Nicolas Piffeteau, General Manager France, & Repeat → Jeannette Morath, Founder & CEO, ReCircle → Chris Baker, UK Country Manager, & José Manuel Moller, Founder & CEO, Algramo → Emmanuel Auberger, Founding President, Uzaje → Nick Torday, Co-founder and CEO, Bower Collective 	<ul style="list-style-type: none"> → Julien De Beys, Social and Inclusive Entrepreneurship, DG Empl, European Commission → Sarah Risch & Cecilia Vertongen, OVAM → Liina Kanarbik, Tallinn → Alice Abbat, Coordinatrice, Réseau Consigne → Celia Rennesson, Cofounder & Director, Réseau Vrac 	<ul style="list-style-type: none"> → Elena Schaegg & Henriette Schneider, Senior Experts in Circular Economy, DUH → Marie Denninghaus, Policy Coordinator, EDH



Appendix III: Interview discussion topics

A detailed discussion guide was developed for each interviewee type. The following is a summary of the main headings covered:

- Welcome & introduction (all interviewees): introducing RPa, Unpackaged, this project and the 30% reuse scenario used to frame the research.
- Background information on the organisation they work for (all).
- Understanding reuse systems (reuse businesses only): how the design, logistics and infrastructure of reuse works in their business, successes, obstacles and any support they benefited from.
- Reuse in context (public & 3rd sector): looking at the legal framework around reuse, existing support for reuse and potential barriers / issues.
- The socio-economic factors of reuse systems (all): exploring jobs, skills, costs & value added to business and Just Transition policies.
- Looking at a 30% reuse by 2030 scenario (all): conditions required to achieve it and impacts it could have on workers, businesses, communities.
- Accessibility (all): the accessibility of reuse to consumers, and the accessibility of jobs in reuse.



Appendix IV:

Key interview themes

The following is a summary of the themes that emerged the most from the interviews, arranged by discussion topic.

On critical success factors:

The German Pfand system is a viable example that the reuse model can work - Many look at the German system as a success story of big businesses working together in adopting a wide-scale reuse packaging systems.

A shared infrastructure will make wide-scale adoption of reusable packaging systems possible - However, the challenge lies in big businesses and countries agreeing on a system that works for them.

Route back to market is an industry wide disruption - Reuse systems require a new and separate supply chain when a lot of investment has gone into waste collection for recycling.

Policy and regulation are necessary to ensure a transition to reuse systems - Governments need to come together and implement binding policies that will offer a level playing field for all.

To foster the transition to reuse, there needs to be investment security - Long-term financial funding provided by national / local government to support reuse businesses beyond the pilot phase.

The measurement of success in reuse needs to be standardised - There needs to be an aligned target where reuse and its success quotas are clearly defined and measured.

There is a lot of vested interest in recycling that may impact the transition to reuse - Concerns about job losses in plastic waste management and conflicting messaging on which is best at reducing waste.

For some, the environmental benefits of reuse still need to be proven - Lack of agreement on the benefits of reuse can be a barrier to wide-scale adoption.

There is confusion among consumers around reuse and sustainability.

On accessibility:

Until the end-to-end cost is reflected in single-use packaging, it will always be more competitive.

Reuse packaging is economically competitive when at scale.

Many believe reuse is less accessible because it is not convenient - Consumers are aware reuse benefits the environment, however, unlike single-use the process of returning reusables is time consuming and not straight-forward.

Reusable packaging is not available at big retailers - This is a significant barrier to wide-scale adoption of reuse amongst consumers.

For a reuse system to be accessible for all, its offering cannot be one size fits all - From major retailers, SMEs to start-ups, reuse systems need to provide a range of alternative solutions to their customers.

However, providing different offerings to customers can be confusing - *Ensuring that a reuse system targets everyone's needs would not simplify access, but complicates it.*

The 'right' reusable packaging solutions have not necessarily been found - *Reusable packaging innovation is at the developmental stage and there is still a long way to go to scale it up.*

On inclusive and fair packaging reuse systems:

A decentralized, inclusive community-based reuse system model works for refills and lowering CO2 emissions - *However, some argue that this model is not economically viable for reuse systems to scale up.*

On impacts on jobs:

There are more job opportunities in reuse than single-use - *Many elements of the reuse system require manual intervention and manpower to manage particularly in sorting and cleaning.*

However, as reuse scales up, the move to automation is inevitable - *The demand to run a cost-effective and efficient business will move reuse systems to high-tech models.*

Jobs at reuse packaging systems are accessible to all including those who are in under-represented groups.

Additional training is required for certain jobs in reuse systems - *Particularly in waste management, cleaning, digital infrastructure, marketing and promotion.*

Particular feedback from start-ups:

One of the biggest challenges with reuse start-ups is scaling-up - *To scale up, high volume needs to be achieved for it to be convenient and affordable for the customers.*

For start-ups to survive they have to adopt a capitalist way of working - *Reuse systems require long term investment and access to funding is not always easy.*





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