

EUROPEAN REUSE BAROMETER

2026 EDITION

DISCLAIMER / LEGAL NOTICE

© 2026 — All rights reserved.

This report may be read, downloaded, printed and shared by linking to reusebarometer.eu. It may not be hosted, republished or redistributed, in whole or in part, on any other website, platform or database without prior written permission. Requests: hello@reusebarometer.eu.

Short extracts and individual figures may be quoted, provided the source is given as: “European Reuse Barometer 2026, reusebarometer.eu”.

ACKNOWLEDGEMENT



© CHEP

The *European Reuse Barometer: 2026 Assessment of the current reusable packaging landscape in Europe* is the product of the generous dedication of numerous institutions, NGOs, associations, businesses, and individuals in the reuse & refill packaging industry.

LEAD AUTHOR

InOff Plastic
François Chartier-Kastler, General Director

REVIEWERS

Zero Waste Europe
Nathan Dufour, Reuse Systems Manager

New ERA
Fernando Rodriguez-Mata, Director General
Raphaëlle Darras, Communication and Knowledge Manager

Verpact
Marcel Keuenhof, Reusable Packaging Expert

Valipac
Filip Vangeel, Manager Sustainability

The Pew Charitable Trusts
Sarah Baulch, Senior Officer

KEY CONTRIBUTORS

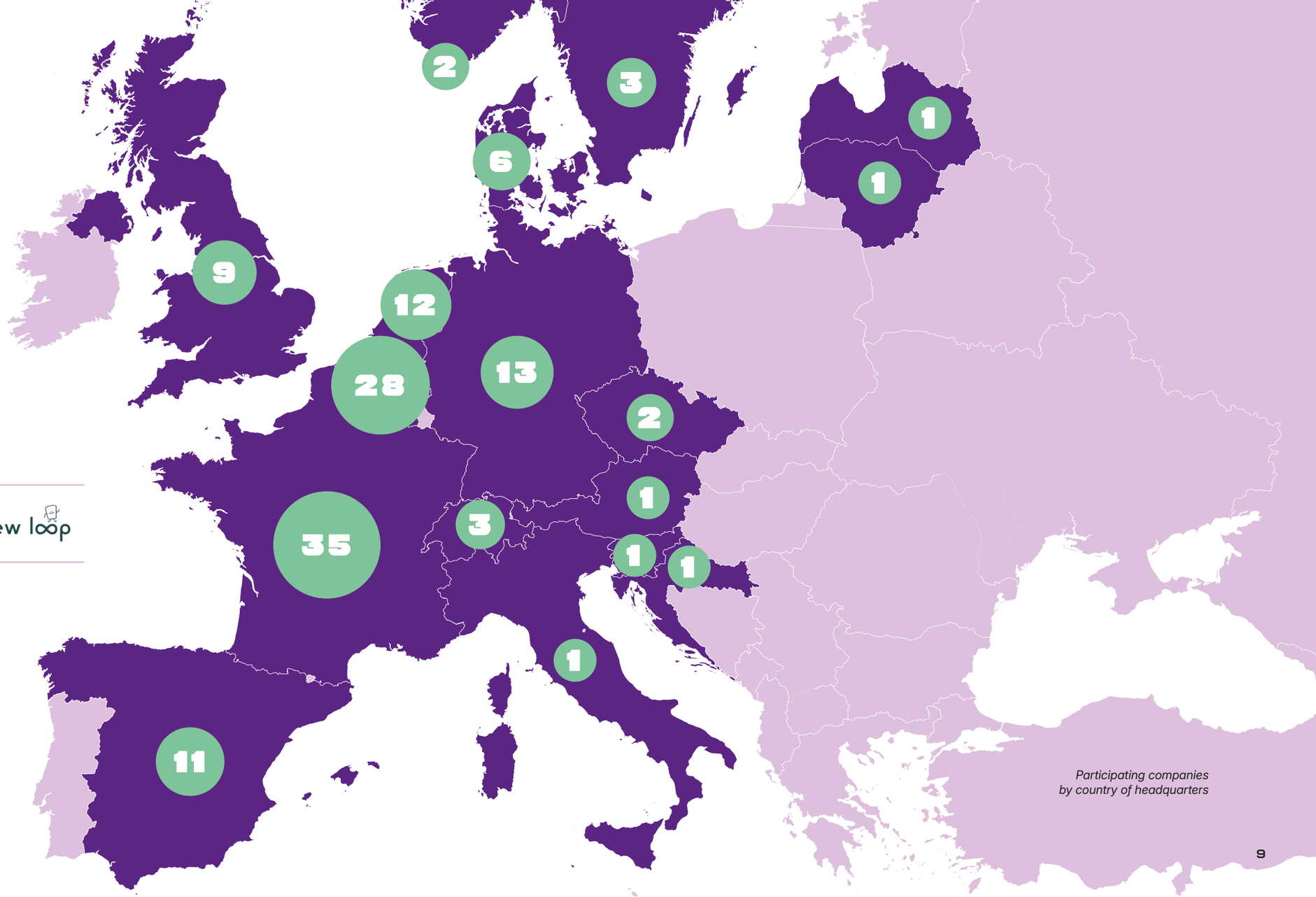
The coverage on transport packaging was made possible by the ongoing support of Valipac, one of the barometer's national partners, and by Ángel Rodríguez from CHEP, who encouraged B2B operators to take part in the survey. The coverage on refill builds on the work of Sylvie Droulans from ConsomAction, who drove a dedicated refill edition in Belgium last year: capitalising on that groundwork, this edition surveyed refill companies across Europe.

RESPONDENTS

This edition is based on the answers of 130 reuse and refill companies across Europe that took the time to complete the survey and share their data – without them, these reports could not exist. An interactive map of every participating company, country by country, is available online at reusebarometer.com.

A special thanks to the companies that have taken part in all the editions of the Barometer – their continuity is what makes year-on-year comparison possible:

BOXO · Cauli · CupUp.eu · Fourgon · Ma bouteille s'appelle Reviens · MMP Mach Mehrweg Pool · new loop · Pandobac · Petrel Circular Commerce · re Circle · ReRooted · RE·ZIP · Rubbish reusables · SwapBox · sykell · zerooo



Participating companies by country of headquarters

STRATEGIC PARTNERS & FUNDERS

Zero Waste Europe and New ERA form the steering committee of the Reuse Barometer. They co-design the project's strategic direction, shaping its goals, methodology, and overall scope. They provide high-level guidance on priorities such as sector focus, indicators, and analytical framing, ensuring that the Barometer remains aligned with the broader European reuse agenda. These organisations also contribute financially to the project.

Zero Waste Europe (ZWE) is the European network of communities, local leaders, experts, and change agents working towards a better use of resources and the elimination of waste in our society. They advocate for sustainable systems; for the redesign of our relationship with resources; and for a global shift towards environmental justice, accelerating a just transition towards zero waste for the benefit of people and the planet.

Learn more at: zerowasteeurope.eu

Contact us at: hello@zerowasteeurope.eu

Zero Waste Europe gratefully acknowledges financial assistance from the European Union. The sole responsibility for the content of this material lies with the author. It does not necessarily reflect the opinion of the funder mentioned above. The funder cannot be held responsible for any use that may be made of the information contained therein.

New ERA (New European Reuse Alliance) is the trade organisation representing businesses that provide and offer reusable and refillable solutions and support across the entire packaging value chain, covering various market segments such as takeaway, e-commerce, retail, and transport packaging, and serving both B2B and B2C contexts. Its mission is to advocate for sound EU policies that will provide the economic conditions to unlock the full potential of well-designed reuse and refill systems.

Learn more at: newreusealliance.eu

Contact us at: info@newreusealliance.eu

Through their funding Verpact made this study possible, demonstrating its commitment to supporting innovation and accelerating the transition toward reusable packaging systems.

Verpact is the Extended Producer Responsibility (EPR) organisation for packaging in the Netherlands. The organisation coordinates the collection, recycling and prevention of packaging waste to ensure that all businesses meet the recycling targets that fall under the EPR obligations. As such, Verpact collaborates with companies, governments and recyclers to accelerate the transition toward a circular economy for packaging.

In 2023, Verpact was founded by merging Afvalfonds Verpakkingen, Nedvang, KIDV (Netherlands Institute for Sustainable Packaging), NL Schoon and Statiegeld Nederland.

Learn more at: verpact.nl



Pakt

NATIONAL PARTNERS

Special recognition is extended to our 13 national partners whose knowledge, expertise and insights helped to shape this work. They strengthen the survey's quality and relevance at country level and ensure broad participation from reuse and refill companies by disseminating it through their networks.



PROJECT LEAD

InOff Plastic acts as the operational lead of the European Reuse Barometer, responsible for project management, survey design, data collection, and analysis. As the project's independent research team, it coordinates all partners, ensures methodological consistency, and safeguards the integrity and objectivity of the findings. InOff Plastic supports the Barometer's development by investing time beyond the funded scope.

InOff Plastic is a consulting firm specialised in reducing single-use packaging. The company supports clients in defining their packaging strategy and in designing and implementing reuse or bulk sales models adapted to their operations.

Learn more at: inoffplastic.com

Contact us at: contact@inoffplastic.com



Re-uz

TABLE OF CONTENT

ACKNOWLEDGMENT 4
- Respondents 8
- Strategic partners & funders 10
- National partners 12
- Project lead 14

TABLE OF CONTENT 16

LIST OF FIGURES AND FOCUSES 18

EXECUTIVE SUMMARY 22

INTRODUCTION 28

METHODOLOGY 34
- Methodological approach 36
- Analytical framework - PPWR categories 38

PPWR OBLIGATIONS ON REUSE & REFILL 40
- Transport packaging 42
- Beverage packaging 46
- Take-away packaging (HORECA) 48
- Other: food packaging 50
- Refill 52
- Other : personal care packaging 54

OVERVIEW OF COMPANIES SURVEYED 56

REUSE SYSTEMS - ALL PPWR CATEGORIES COMPARED 64
- Main activity, employment & reuse system type 66
- Packaging formats, materials & standardisation 76
- Purchase price vs equivalent single-use packaging 87
- Return rates 92
- Operations & logistics 98
- Financial performance 103

REFILL SYSTEMS 106
- Activities and assortment 108
- Sourcing, losses, containers and obstacles 110
- Revenue and trend 112

STATE OF THE REUSE & REFILL INDUSTRY 114
- Environmental performance 116
- Opportunities, barriers & policy needs 117

CONCLUSIONS & RECOMMENDATIONS 123

APPENDIX 128
- Definitions 130
- List of indicators 137
- Bibliography 140

LIST OF FIGURES AND FOCUSES

Disclaimer / Legal Notice ... 3
Figure 1 – Headquarters & countries of operation ... 58
Figure 2 – PPWR categories ... 59
Figure 3 – Year of creation – Reuse vs Refill ... 61
Figure 4 – Social Readiness Level (SRL) – Reuse vs Refill ... 62
Figure 5 – Reuse, Companies' MAIN activity ... 66
Case Study – Pandobac – France ... 69
Figure 6 – Reuse, Employees (FTE) ... 70
Figure 7 – Reuse, Planned recruitments ... 71
Figure 8 – Reuse, Type of system ... 72
Case Study – Cirqle – Denmark ... 73
Case Study – PRS Pallet Return System – Netherlands ... 73
Case Study – Circular Logistics Bikebox – Germany ... 74
Case Study – LPR La Palette Rouge – France ... 74
Case Study – EPAL Euro Pallet Exchange – Germany ... 75
Case Study – MMP Mach Mehrweg Pool – Germany ... 75
Figure 9 – Reuse, Packaging formats ... 76
Figure 10 – Reuse, Packaging materials ... 79
Case Study – Rotom – Netherlands ... 80
Figure 11 – Reuse, Number of cycles ... 81
Case Study – Gordon – Sweden ... 83
Figure 12 – Reuse, Standardisation ... 84
Case Study – Sykell – Germany ... 86
Figure 13 – Reuse, Cost for the company vs for the consumer ... 87
Case Study – The Ocean Package – Germany ... 88
Case Study – Free Pack Net – Switzerland ... 90
Figure 14 – Reuse, Return rates ... 92
Case Study – Aucxis Star – Belgium ... 93
Figure 15 – Reuse, Return rates by return mechanism ... 94
Case Study – CMB Maria & Franz – Belgium ... 95
Case Study – Borro - Belgium ... 96
Case Study – Kleen Hub – Denmark ... 97
Figure 16 – Reuse, Tracking technologies ... 98
Case Study – Clubzerø – United Kingdom ... 100
Case Study – Runden Group – Germany ... 100
Figure 17 – Reuse, Cleaning capacity used ... 101
Case Study – Eternity Systems – France ... 102
Figure 18 – Reuse, Annual revenue ... 103
Figure 19 – Refill, Companies' activities ... 108
Case Study – JFA LaverVert – Belgium ... 109
Case Study – (ecourage) – Norway ... 110
Case Study – Épices & Tout – Belgium ... 112
Figure 20 – Life Cycle Assessments – 2024 · 2025 · 2026 ... 116
Figure 21 – Industry collaboration ... 117
Case Study – Interpool – North-West Europe ... 118
Case Study – Dotch – Germany ... 119
Figure 22 – Types of support needed ... 120
Figure 23 – EPR schemes & policy measures ... 121

EXECUTIVE SUMMARY



The Keepers

Key findings from the 2026 edition of the European Reuse Barometer, which in this third edition is structured around the Packaging and Packaging Waste Regulation (PPWR) that sets reuse targets and obligations on refill.

The European Reuse Barometer is the annual survey-based assessment of Europe's reusable and refillable packaging industry. This third edition rests on **130 responses from 799 companies contacted across 18 countries** – the most companies contacted and the most responses of the three editions. It builds on the packaging categories as defined in the PPWR and for which reuse targets and refill obligations have been defined (transport packaging – including e-commerce packaging, beverage packaging, take-away packaging and refill). It includes food and personal care packaging that, although are not covered by the PPWR, are tracked because they drive key consumer-facing reuse innovations. The report yields six key findings.

Reuse systems are already operating at scale across Europe. Most of the solutions surveyed are operationally mature rather than experimental: 77% are at scale-up or in-market stage, and 62% are fully in market. Companies were also asked how many times their packaging is reused over its lifetime, based on operational figures rather than theoretical assumptions. This question proved difficult: some answers appear to reflect how many cycles the packaging is designed for rather than how many it actually completes. The results are therefore indicative only: rigid plastic food containers and crates reach a median of 125–350 trips and plastic cups around 50. In terms of return rates:

- In B2B systems, returns are usually secured through agreements*. 8 of the 11 transport companies surveyed report return rates above 95%.
- Some consumer-facing systems use a different mechanism. For example switching to a penalty model, in which the consumer only pays if the packaging is not returned within a certain amount of time. Or a hybrid model, which uses both a deposit upfront and a late penalty. 7 of the 8 companies using these models (88%) report a return rate above 90% (a pattern consistent across all three editions)[1].

Half of the companies have measured their environmental impact. Just over half of the companies answering (54%, 51 of 95) have performed a Life Cycle Assessment. The share was 42% in 2025 (107 answers) and 48% in 2024 (21 answers). 14 of these companies gave a link to a published study; the others did not share theirs. Four give a break-even point against single-use: from 2–3 uses for a polypropylene cup to 27–33 for a stainless steel cup. Some of these LCAs report theoretical CO2 reduction compared to single-use of 46% to 80%, depending on the number of uses[37-38-39].

When reusable packaging costs more to buy than single-use, most companies do not charge the difference to consumers. The survey asked companies to compare the price of buying or renting reusable packaging with the price of equivalent single-use packaging. 65% of the companies pay more for reusable packaging than for single-use, 15% pay the same and 20% pay less. Of the companies that pay more for reusables, 58% do not pass the cost on to their consumers. In business-to-business transport, 6 of the 10 companies answering report that buying or renting reusable packaging is cheaper than using equivalent single-use packaging.

Cleaning infrastructure is under-used. The survey asked the companies that wash packaging how much of their washing capacity they use. Of the 33 companies answering, 17 use 45% of their capacity or less. Asked how many units they could wash in a year at full capacity, 20 of the 37 companies answering reported 3 million units or more.

* In B2B loops the return of the packaging is usually part of the commercial agreement between the operator and its system participants rather than secured by a consumer deposit.

This year's respondents include more large companies than in earlier editions. Among the 64 reuse companies reporting their revenue, 22% report more than €10M, against 13% in the 2025 edition as several large poolers joined. Companies whose main activity is reuse system management, software management, cleaning and reconditioning, or collection infrastructure were asked whether their reuse activity made a positive operating margin in 2025, before large R&D or capital investments. 12 answered: 5 said yes, 6 no, and 1 that it was too early to tell.

Reuse companies are expected to grow. The sector is hiring: 95% of reuse companies plan recruitments within two years – roughly 690 jobs among the 56 answering, and an estimated 5,500 to 7,500 across the companies mapped in Europe.

This edition covers refill for the first time at European level. Refill means that a container is filled at the shop, by the customer or by the shop. The container belongs to the customer or is bought at the shop. 26 companies active in refill answered the survey. Of the 25 companies that reported their activity, 12 are shops. Most of these shops sell mainly in bulk. Half of the 19 companies answering offer at least 70% of their range in bulk and bulk represents 80% of their revenue (14 answers). 11 of 19 companies report that the share of bulk in their activity is increasing, 5 that it is stable and 3 that it is decreasing. 12 of the 15 companies reporting a distance sell local products that travel less than 150 km, and 12 in 13 report losses below 5% or less of stock. The trend is upward: 11 of 19 of respondents report an increasing share of bulk in activity.

The obstacles cited by refill operators lie at both ends of their chain rather than in consumer demand. Refill is only fully zero-waste if packaging is reused at both ends of the chain: customers should be able to take their products home in reusable containers, and suppliers should be able to deliver the products to the shop in reusable packaging rather than in single-use packaging.

Asked what support would help them most, 72% of companies choose stronger regulation and enforcement limiting single-use packaging and 14% choose technology, the lowest share, as in the 2025 edition4. Companies were asked whether extended producer responsibility (EPR) schemes support their reuse or refill activities, including whether costs and market conditions compare well with single-use packaging. 49% see a positive relationship, 27% a limited or unclear one and 12% no relationship or negative effects. 13% say they lack visibility on what EPR schemes do. The measures most often selected are taxes on single-use where alternatives exist (70%), subsidies (63%) and reduction targets (58%).



Sykell

INTRODUCTION

The PPWR reuse targets and the current state of European packaging policy

The PPWR is now applicable across the EU. The EU's Packaging and Packaging Waste Regulation (PPWR), formally adopted in late 2024, became applicable on 12 August 2026[3] – the first European text to set legally binding reuse and refill targets, directly applicable in every Member State. It requires each Member State to reduce packaging waste per inhabitant by at least 5% by 2030, 10% by 2035 and 15% by 2040, compared with 2018. It also sets reuse targets for each packaging category from 2030, with higher levels to aim for by 2040. The binding framework the industry has asked for in every previous edition of this barometer is now in force: the regulation has applied since August 2026, and its targets apply from 2030.

This edition is built around the regulation itself. This third edition is the last picture of the European reuse and refill landscape taken before the regulation became applicable – the baseline against which the PPWR's effect will be measured – and the first structured around the regulation rather than around market sectors. The sector taxonomy of the 2024[1] and 2025[4] editions (retail, hospitality, e-commerce and transport) has been replaced. **Transport (B2B), Beverage and Take-away (HORECA)** directly mirror the packaging categories addressed by the PPWR's reuse targets and refill obligations – so each chapter of this report can be read against the objectives its companies will have to meet – and a dedicated **Refill** segment tracks the bulk (packaging-free) models the regulation's refill provisions promote. Two further categories, '**Other: Food**' and '**Other: Personal care**', carry no binding PPWR targets to date. Together they account for 23% of the PPWR category tags assigned to respondents (37 of 162) and are tracked with the same indicators. The category-by-category targets are set out in "PPWR Obligations on Reuse & Refill".

The rationale for these targets is visible in the waste figures. The EU generated 79.7 million tonnes of packaging waste in 2023 – 177.8 kg per inhabitant – and while recycling has nearly reached its 2030 target (67.5%), prevention has not: per-capita waste only began falling after its 2021 peak, and 2023 figures remain close to record levels[5]. The average also hides differences of more than two to one between Member States: an average Irish consumer generates 223 kg of packaging waste a year, a German 215 kg and a Danish 192 kg, against 139 kg for a Slovenian and 104 kg for a Slovak[5]. Globally, according to Ellen MacArthur's 2025 Global Commitment Report, "the adoption of reusable plastic packaging remains limited, with brand and retail signatories reporting that only 1.2% of their total packaging is reusable"[6]. As Europe has been more focused on recycling than on prevention and reuse, the PPWR aims at correcting this imbalance.



Well Pack



Dutch Cups

Where the system is built at scale, reuse dominates. Some 1.2 billion reusable transport packaging assets have been placed on the market according to Reusable Packaging Europe (2020 data), completing on average 56 rotations over an 8-year life[7]. In Belgium, 82% of business packaging was reusable by weight in 2025[8-9]. In Germany, a single take-away reuse system operates across some 20,000 outlets[10]. The pallet pools are industrial systems (shared assets, washing lines, collection on existing delivery rounds); the German cups model grew in a bottom-up way (standard cup washed by the cafés themselves, backed by return habits and a law obliging restaurants to offer reuse). Though, these models have the same logic: creating economies of scale by making adoption easy and sharing expensive infrastructures (e.g. washing, transport, packaging). This is why a shared system can usually compete with single-use on price (e.g. reusable pallets behind supermarket deliveries usually does), while an individual system where a company invests and pays for washing, transport and packaging on its own is usually too expensive to scale. Its reuse model is therefore more likely to stay a pilot rather than a way of operating.

This edition therefore focuses on measurement. The challenge is now to translate regulatory commitment into measurable industrial reality. This barometer maps, for each PPWR category, the companies already operating reuse or refill systems and the performance they report, demonstrating that the targets correspond to activities already carried out by operators across Europe. Building on the broader mapping of the first two editions, this edition examines a narrower set of indicators in more detail, on the largest base of the three editions: 130 respondents drawn from a cumulative pool of 268 companies. The cost of reuse is measured from both ends (what the operator pays, what the consumer pays), return rates broken down by the types of return rates used, reuse cycles by format and material, washing capacity and its utilisation, and a refill section examining bulk sales as an operating supply chain, with its own indicators.

Selected figures are set beside external benchmarks, listed in the Bibliography.

METHODOLOGY

How the 2026 survey is designed, collected, and structured around PPWR categories

METHODOLOGICAL APPROACH

1. ONLINE SURVEY

Between April and July 2026, a survey was distributed to companies providing solutions for reusable or refillable packaging, headquartered and operating in Europe. The questionnaire collected self-reported data on company profiles, packaging formats used, operational performance, logistics models, financial indicators, and perceived regulatory and financial barriers.

The contact database has been built over seven years and tested across the three editions. Setting aside contacts that are most likely inactive or too nascent, it is estimated that **around 630 reuse & refill companies are active in Europe today**.

Participation grew for the third year running – **130 responses in 2026**, after 115 in 2025 and 90 in 2024 – for a cumulative pool of **268 distinct companies**; 23% answered the last two editions and 6% all three. This year's response rate is around 16%, the same as last year[4].

2. DATA VALIDATION AND CONSOLIDATION

Responses were cross-checked for internal consistency. Every figure in this report is drawn directly from the survey data with no imputation: where a company did not answer a question, it is excluded from that figure's sample rather than assigned a default. This is why sample sizes vary from figure to figure, and why each figure states its own sample.



Le Pourgon

The figures are self-reported. This remains the only practical way to collect data at this level of detail across 17 countries and around 30 indicators, but self-reported data tends to be optimistic, and errors, rounding or honest overstatement can slip through if a figure is never compared with an external source. Three checks are therefore applied before publication:

- **Automated consistency checks**. Each submission is compared against the company's own past figures and against peers in the same country, sector and size bracket; outliers are flagged and resolved directly with the company – corrected, excluded, or explained as a case study.
- **External benchmarks**. The weightiest indicators are checked against independently published data: national Extended Producer Responsibility (EPR) organisations reporting (e.g. Valipac, Fost Plus, Verpact, Citeo), trade statistics (e.g. Reusable Packaging Europe, CHEP, Euro Pool System, IFCO, RECUP) and Eurostat for market context – see the Bibliography.
- **Published with a confidence note**. Readers are invited to flag any inconsistency, through a direct channel to the editorial team; confirmed corrections are reflected in the next update.

The analysis focuses on identifying patterns and trends rather than statistical representativeness, consistent with the exploratory nature of the Reuse Barometer.

3. INDICATOR DEVELOPMENT

The questionnaire ran in seven thematic blocks over five pages, with most questions conditional on earlier answers – a pooler and a zero-waste grocer each shown only the questions that applied to their model. The main conditional question is the industry question (reuse, bulk, or both), which separates reuse from refill companies throughout this report. The full indicator list is detailed in the Appendix.

4. COVERAGE AND FOCUS COUNTRIES

Dissemination ran through the 13 national partners, by direct outreach and newsletters. Responses concentrate in France, Belgium and Germany. Participation across Central and Eastern Europe remains thin – the Czech Republic, Slovenia, Croatia and Lithuania each sit at around 1% of the sample – and some markets, Poland among them, are still blind spots. This largely mirrors the maturity of the local markets and of the national organisations around them as well as the extent of the strategic partners' network. In Western Europe, where reuse markets are developed or growing, national reuse organisations exist – as in France, Germany, Belgium and Spain, with equivalents being built in Switzerland and the United Kingdom. In Central and Eastern Europe, partners are more likely to cover the circular economy as a whole, with reuse being a sub-topic. That means less time, money and staff are dedicated to reuse – and a direct constraint on this survey, since local partners strongly support local companies identification and lead to higher response rates. These gaps are treated as work in progress: the network of national partners aims at growing with each edition, and local partnerships are being developed to bring the missing markets into future ones.

5. DATA REPRESENTATION AND LIMITATIONS

While not statistically exhaustive, the dataset provides a snapshot of current industry dynamics. It is skewed towards Western Europe and micro and small companies. It supports trend analysis while highlighting an area for broader inclusion in future editions: packaging users and larger operators. Unlike the 2025 edition, **every figure is built exclusively on 2026 data** – nothing is carried over from earlier rounds.

ANALYTICAL FRAMEWORK - PPWR CATEGORIES

The 2026 edition introduces a structural shift relative to previous editions. Rather than organising data by sector of activity (retail, hospitality, e-commerce, transport), findings are now organised by PPWR category. This change makes the report directly actionable: readers can identify, for each regulatory target and obligation, which companies are already operating relevant systems and what performance they achieve.

Five reuse categories are used throughout: **Transport**, **Beverage**, **Take-away**, **Other: Food** and **Other: Personal care**. As structurally different, **refill** is treated as a distinct segment rather than a sixth reuse category. In a refill model a container – either single-use or reusable, provided by the shop or brought by the consumer – is filled at the point of sale whereas in a reuse system the operator owns and circulates the packaging. Many refill operators embed a reuse loop in their own offer, providing returnable deposit containers so that refill stays packaging-waste-free even for a customer arriving empty-handed. These reuse containers used to purchase in bulk are treated distinctly in the refill section (further developed in "Refill Systems").

The report assigns each company to one or more packaging categories. The assignment is based on the company's activity, not on the packaging formats the company listed in the questionnaire. Two questions decide the category: who handles the packaging, and what the packaging is used for. A company is assigned to every category that matches the company's activity. A company is assigned every category its activity genuinely covers, so a company may be assigned one, several, or no category. The report does not limit a company to one main category. Therefore, per-category counts in this report sum to more than the number of companies. Companies whose activity sits outside the categories – consultants, networks and NGOs, and some manufacturers – carry none, and are excluded from the by-category figures. This reflects the methodology rather than incomplete data.

Three rules govern the assignment:

- **The transport packaging category concerns pooler-only**. It is assigned only to a company that itself manages the reusable transport asset – collecting, cleaning and redistributing it. Merely using transport packaging that someone else manages does not qualify.
- **For the transport packaging category, operating a pooling loop is necessary but not sufficient**. The packaging must also be structurally transport packaging: an outer container grouping separate sales units for handling and transport, per Art. 3(1)(7) of the Regulation. A large reusable box filled directly with product for a B2B food service is primary packaging even when a pooling loop is in place around it. It is therefore classified as Take-away and Other: Food rather than Transport.
- **Software and cleaning companies are classified by what their clients' packaging is**.

Every assignment was made company by company from the survey response and public evidence, and reviewed case by case.

PPWR OBLIGATIONS ON REUSE & REFILL

The binding reuse targets and refill obligations set by the Packaging and Packaging Waste Regulation, category by category – illustrated with companies already operating in each space



Pandobac

Articles 28 and 29 of the PPWR set out reuse targets and refill obligations across four distinct areas of the packaging value chain. This section summarises the regulatory targets and obligations applicable to each, and highlights some reuse and/or refill providers from the 2026 Barometer that brands can collaborate with to achieve these targets and obligations. Examples are showcased in each sub-section, and the full list of solution providers is available online.

TRANSPORT PACKAGING

Transport packaging is packaging conceived to facilitate the handling and transport of one or more sales units or a grouping of sales units, preventing damage from handling and transport – excluding road, rail, ship and air containers. **Grouped packaging** – packaging constituting a grouping of sales units at the point of sale – travels through the same business-to-business handling and transport loops. For simplicity, Grouped packaging is inserted into this Transport packaging category. This category mostly regroups crates / boxes and pallets used in B2B exchanges within the retail, hospitality, pharmaceuticals, chemicals, and horticulture & agriculture sectors. **It also covers e-commerce packaging** – shipping envelopes, crates / boxes, pouches and returnable parcel boxes replacing single-use packaging in B2C deliveries. Under the PPWR, packaging used to deliver goods bought online is generally considered transport packaging (Art. 2): e-commerce is a sales channel, not a packaging category of its own, so it carries no separate quota and falls under the same Article 29 transport packaging reuse targets. Because its logistics and its consumer-facing return loops differ from pallet and crate pooling, this report shows a split of the Transport packaging category, wherever the sample allows, into two sub-groups. A company is placed in the **E-commerce** sub-group when its reported activity includes shipping products to the end consumer through online channels, while the pallets, crates and other packaging moved between businesses and never sent to an end consumer through e-commerce fall in the B2B sub-group. It is a reporting split by sector, not a distinct PPWR category.

PPWR TARGETS - ARTICLE 29

FROM 2030:

- From 1 January 2030, economic operators that use transport packaging, or sales packaging used for transporting products, including for products distributed via e-commerce, within the territory of the Union, in the form of pallets, foldable-plastic boxes, boxes, trays, plastic crates, intermediate bulk containers, pails, drums and canisters of any size or material, including flexible formats or pallet wrappings or straps for stabilisation and protection of products put on pallets during transport, shall ensure that at least 40 % of such packaging in total is reusable packaging within a re-use system.

Since 25 February 2026, a delegated act exempts pallet wrapping and straps from the two 100% requirements. They remain covered by the 40% target[22].

- From 1 January 2030, by way of derogation from paragraph 1 of this Article, economic operators that use transport packaging or sales packaging used for transporting products, in the forms as listed in paragraph 1 of this Article, within the territory of the Union, between different sites on which the operator performs its activity, or between any of the sites on which the operator performs its activity and the sites of any other linked enterprise or partner enterprise, as defined in Article 3 of the Annex to Recommendation 2003/361/EC as applicable on 11 February 2025, shall ensure that such packaging is reusable within a re-use system.
- From 1 January 2030, by way of derogation from paragraph 1, economic operators that use transport packaging or sales packaging used for transporting products, including for products distributed via e-commerce, in the forms as listed in paragraph 1, to deliver products to another economic operator within the same Member State shall ensure that such packaging is reusable within a re-use system.
- From 1 January 2030, economic operators that use grouped packaging in the form of boxes, excluding cardboard, outside of sales packaging to group a certain number of products to create a stock-keeping or distribution unit shall ensure that at least 10 % of such packaging is reusable packaging within a re-use system.



CHEP

FROM 2040:

- From 1 January 2040, those economic operators shall endeavour to use at least 70 % of the packaging referred to in the first subparagraph in a reusable format within a re-use system.
- From 1 January 2040, economic operators shall endeavour to use at least 25 % of the packaging referred to in the first subparagraph in a reusable format within a re-use system.

These targets do not apply to packaging used for dangerous goods, large-scale machinery or custom-designed equipment, flexible formats in direct contact with food/feed/food ingredients, or cardboard boxes (fully exempted).

To achieve these targets, brands can consider collaborating with, for example:

CHEP, International
Operates Europe's biggest closed-loop system of reusable transport packaging – 150 million pallets, crates and containers in circulation, with a network of 300 service centres supporting more than 500,000 customers.

hey circle GmbH, Germany
hey circle is providing effective circular packaging solutions, with less environmental impact than single use alternatives from cardboard and even lower costs. The boxes and bags feature smart properties such as double closure options and slim foldability.

BEVERAGE PACKAGING

This category covers alcoholic and non-alcoholic beverages made available to consumers in sales packaging – principally bottles. These bottles are mostly used in the retail and hospitality sectors.

PPWR TARGETS - ARTICLE 29

FROM 2030:

- From 1 January 2030, final distributors that make alcoholic and non-alcoholic beverages in sales packaging available on the territory of a Member State to consumers shall ensure that at least 10 % of those products are made available in reusable packaging within a re-use system.

FROM 2040:

- From 1 January 2040, economic operators shall endeavour to make at least 40 % of the products referred to in the first subparagraph available in reusable packaging within a re-use system.

OWN-BRAND RULE:

- Final distributors shall ensure that packaged products manufactured under their own brand contribute on a fair and proportionate basis towards to the achievement of the targets set out in this paragraph.

EXEMPTED : Highly perishable beverages, and milk, milk products and their dairy analogues; wine, liqueur wine, sparkling and semi-sparkling wines, wine from raisined or overripe grapes, partially fermented grape must and wine vinegar; aromatised wine products; products similar to wine obtained from fruit other than grapes or from vegetables, and other fermented beverages; and alcohol-based spirits. Among grapevine products, four categories are not exempted: new wine still in fermentation, grape must, concentrated grape must and rectified concentrated grape must[3].

SIZE OF THE DISTRIBUTOR : A final distributor with a sales area of not more than 100 m² is exempt from these targets for that calendar year. An economic operator is also exempt for a calendar year if it is a micro-enterprise and made not more than 1,000 kg of packaging available in the Member State that year.



Bring Back

SCOPE NOTE:

dotch GmbH, counted in this category, supplies reusable bottles for liquid foods that are not drinks – cooking oil, vinegar and syrup – rather than for beverages. It is included here because its pooled glass bottles use the same bottle formats and deposit-return infrastructure as beverage reuse, while the PPWR's binding beverage targets themselves apply to drinkable liquids.

To achieve these targets, brands can consider collaborating with, for example:

Consign'Up, France
Consign'Up is a cooperative of collective interest based in Occitanie Pyrénées that operates the all reuse loop. It collects, washes and resells reusable glass bottles to regional stakeholders in favor of a more local and economically viable circular economy.

Mach Mehrweg Pool e.V., Germany
Mach Mehrweg Pool e.V. is the reactivated association of all MMP users, advancing a longstanding reusable glass bottles and jars system. It is developing industry-wide standards and adapting rules to keep it efficient, profitable, and future-ready. Mach Mehrweg Pool is also classified under Other: Food packaging (Section 5.4).

TAKE-AWAY PACKAGING (HORECA)

Take-away packaging is service packaging filled at attended points of sale with beverages or ready-prepared food, packaged for transportation and immediate consumption at another location without further preparation, and typically consumed directly from the packaging. This packaging – mostly cups / tumblers and food containers / trays – is used in the hospitality, events and retail sectors.

PPWR TARGET - ARTICLE 32

BY 12 FEBRUARY 2027:

1.a. final distributors that conduct their business activity in the HORECA sector and that make available on the territory of a Member State hot or cold beverages in take-away packaging shall provide a system for consumers to bring their own container to be filled;

1.b. final distributors that conduct their business activity in the HORECA sector and that make available on the territory of a Member State ready-prepared food in take-away packaging shall provide a system for consumers to bring their own container to be filled.

2. Where consumers bring their own container to be filled, final distributors as referred to in paragraph 1 shall offer them the products at no higher cost and under no less favourable conditions than when selling the sales unit consisting of the same product and single-use packaging.

PPWR TARGET - ARTICLE 33

BY 12 FEBRUARY 2028:

- By 12 February 2028, final distributors that conduct their business activity in the HORECA sector and that make available on the territory of a Member State hot or cold beverages or ready-prepared food in take-away packaging shall give consumers the option of obtaining the products in re-useable packaging within a system for re-use.
- Final distributors shall inform consumers at the point of sale, through clearly visible and legible information boards or signs, about the possibility of obtaining the products in reusable packaging.
- Final distributors shall offer the products filled in reusable packaging at no higher cost and under no less favourable conditions than a sales unit consisting of the same product and single-use packaging.

FROM 2030:

- Final distributors shall endeavour to offer 10 % of products for sale in a reusable packaging format.

To achieve these targets, brands can consider collaborating with, for example:

WeCup, Netherlands
WeCup is a reusable cup system for businesses, hospitality venues and events. It enables organizations to replace single-use cups with a convenient reuse solution, including collection, washing and redistribution, reducing waste and CO_2 emissions.

reCIRCLE, Switzerland
reCIRCLE is a Swiss Packaging-as-a-Service company replacing single-use takeaway packaging with high-quality reusable products, services and a partner network. Since 2016, reCIRCLE has helped 2000+ partners replace 80+ million disposable packages.



WeCup

OTHER: FOOD PACKAGING

This category covers **food packaging outside HORECA** – primary packaging for food products sold through retail channels (shops, supermarkets, online), including jars, food containers and flexible pouches not used in a takeaway context.

REGULATORY STATUS

This reuse category is **not covered by binding PPWR reuse targets**. However, reuse solutions in this space are already active across Europe, which is why it is tracked in this Barometer.

Brands can consider collaborating with, for example:

PFABO, Germany
PFABO is a B2B reusable packaging system provider for the food industry. It develops and operates standardized multi-use containers combined with digital tracking, return logistics and cleaning coordination to replace single-use packaging at scale. PFABO is also classified under Take-away packaging (Section 5.3).

Sykell, Germany
Sykell accelerates the transition to the Circular Economy by enabling reusable packaging systems to scale. Its services address reusable packaging requirements and allow brands in FMCG, foodservice, and retail to transform towards circular value chains. Sykell is also classified under Take-away packaging (Section 5.3).



Moree

REFILL

Refill is understood here in the sense given by the PPWR: a container owned by the end user, or purchased at the point of sale, filled directly with a product bought from the final distributor. Throughout this report, "refill" and "bulk" are used interchangeably for this practice, following market usage. Neither term covers recharge formats – intermediate packaging designed to refill a primary container, such as cosmetics recharge packs – which fall outside the PPWR definition. Definitions and national variants are discussed in appendix "Refill, Bulk & Recharge".

PPWR ASPIRATION - ARTICLE 28

FROM 2030:

- From 1 January 2030, final distributors with a sales area of more than 400 m2 shall endeavour to dedicate 10 % of that sales area to refill stations for both food and non-food products.



Ozon - Le Vrac de Figeac

To pursue this aspiration, brands can consider collaborating with, for example:

(ecourage), Norway
(Ecourage) enables brands and retailers to scale reuse and refill through connected packaging, NFC technology, and digital traceability. Our platform reduces single-use packaging while creating measurable value through data, engagement, and circular commerce.

Épices & Tout, Belgium
At Epices & Tout in Arlon, 200+ spices, teas & organic local products are mostly packaging-free. Its e-shop & click & collect makes sustainable shopping easy: order online, pick up in-store, and enjoy fresh, tasty, eco-friendly flavors.



Reposit

OTHER: PERSONAL CARE PACKAGING

This category covers **personal and home care packaging** – primary packaging for cosmetics, hygiene and household care products (e.g. bottles, jars, sprays, refill cartridges, containers) used to sell products in the retail sector.

REGULATORY STATUS

- This category is **not covered by binding PPWR reuse targets**. However, reuse solutions in this space are already active in Belgium, which is why it is tracked in this Barometer. Though reusable packaging could be an alternative to the Annex V's restrictions on the use of single-use plastic packaging for unprocessed fresh fruit and vegetables.
- The PPWR sets no reuse targets for food and personal care packaging, but these products are well suited to refill.

PPWR RESTRICTIONS - ANNEX V

- "Single-use plastic packaging for less than 1,5 kg pre-packed fresh fruit and vegetables. Member States may set up exemptions in respect of this restriction if there is a demonstrated need to avoid water loss, or turgidity loss, microbiological hazards or physical shocks, oxidation, or if there is no other possibility to avoid commingling of organic fruits and vegetables with non-organic fruits and vegetables in compliance with requirements in Regulation (EU) 2018/848 of the European Parliament and of the Council on certification or labelling, without entailing disproportionate economic and administrative costs."

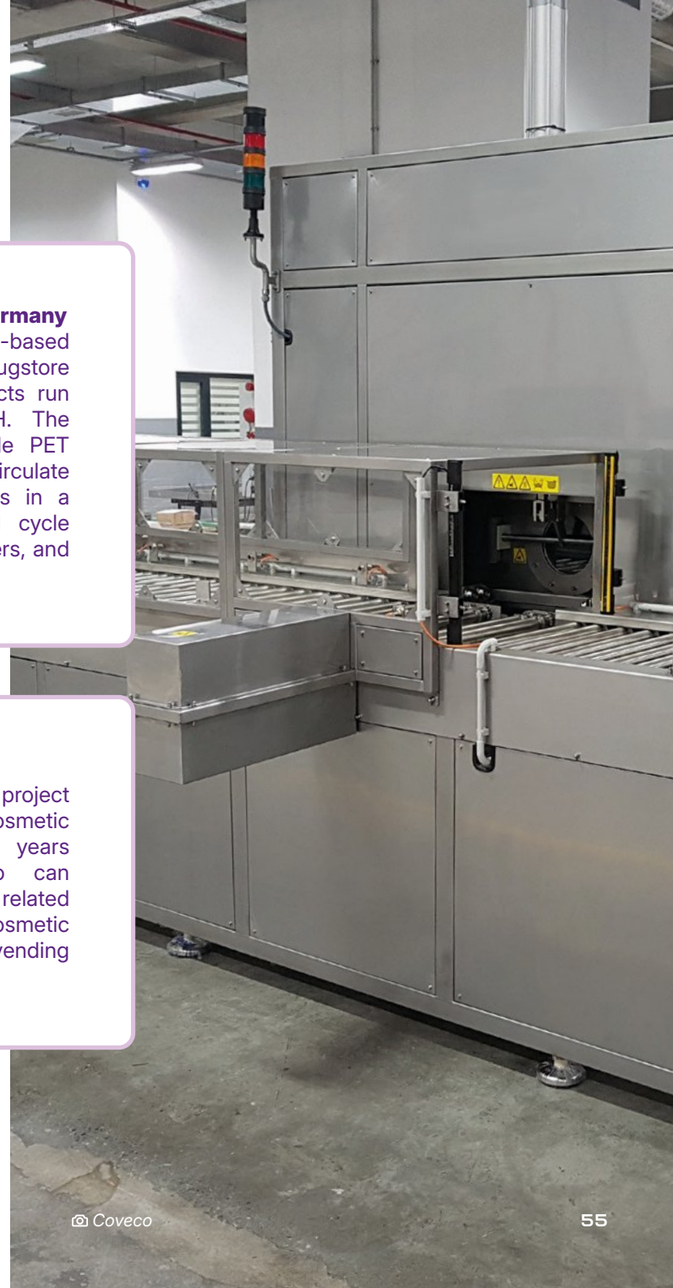
Brands can consider collaborating with, for example:

zerooo

SEA ME (zerooo), Germany
zerooo is a deposit-based reusable system for drugstore and cosmetic products run by SEA ME GmbH. The standardized reusable PET and glass bottles circulate as pooled containers in a closed-loop material cycle among brands, retailers, and consumers.

COVECO

Coveco, France
Coveco is a reuse project dedicated to the cosmetic industry. With 6 years experience, Coveco can handle all questions related to cleansing, cosmetic standards, reverse vending process.

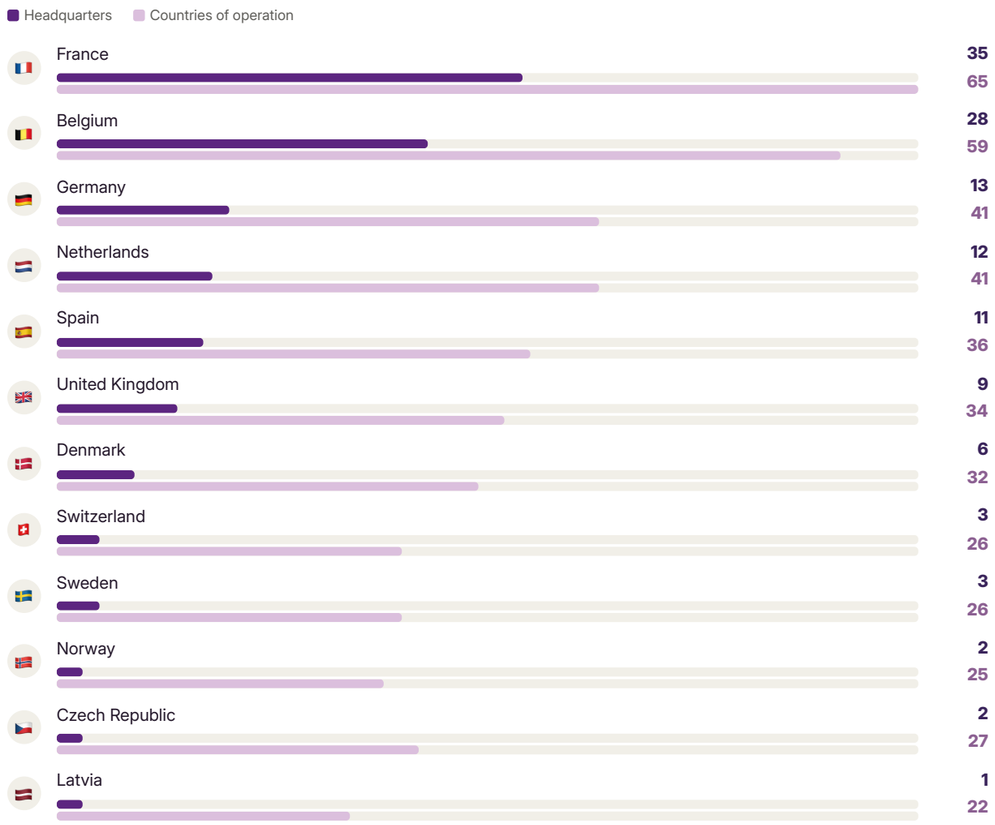


Coveco

OVERVIEW OF COMPANIES SURVEYED

Geographic distribution, year of creation, and Social Readiness Level across all reuse and refill respondents

FIGURE 1 – HEADQUARTERS & COUNTRIES OF OPERATION

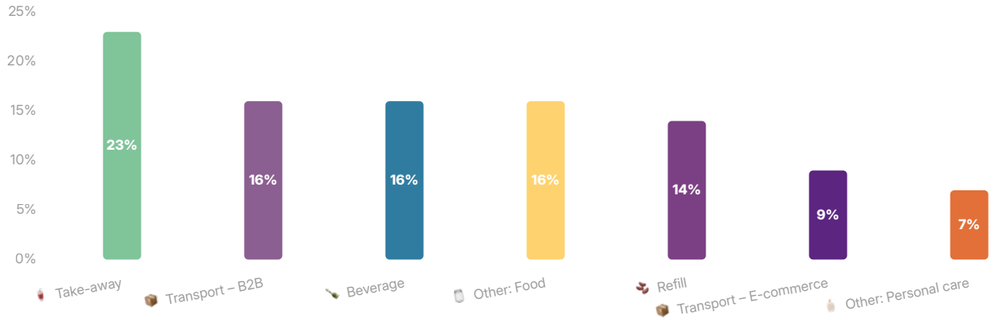


Distribution of companies operating by location of their headquarters and countries of operation.
Sample: all respondents surveyed in 2026

France, Belgium and Germany account for **76 of the 130 headquarters surveyed (about 58%)**, confirming that, like last year, the sample is still concentrated in Western Europe and specifically in those three countries. Alongside these three countries, a second group – the Netherlands, Spain and the United Kingdom – accounts for about 25% of respondents (compared to 17% last year)[4]. This indicates a continued and increasing interest of these countries in this project, a positive sign in an economic context where both companies and national partners have limited time to contribute. Participation across Central and Eastern Europe remains limited and uneven: the Czech Republic, Slovenia, Croatia and Lithuania each account for around 1% of respondents. This reflects Central and Eastern Europe national partners that struggle to commit time to the project: they usually cover the circular economy as a whole, and reuse is only one of many topics they work on – rarely the first priority. In Western Europe, by contrast, partners dedicated to reuse exist – as in France, Germany, Belgium, Spain and the Netherlands, with equivalents being built in Switzerland and the UK.

The countries-of-operation count exceeds the countries' headquarters count – France 65 vs 35, Belgium 59 vs 28, Germany 41 vs 13 – showing that reuse operators typically serve markets well beyond their home base rather than staying purely domestic. Much of that reach is Europe-wide: 20 companies (16% of those answering) report operating throughout Europe – mostly B2B transport companies and a few take-away companies, and are counted in every European market accordingly, which raises the count of countries of operation in smaller markets.

FIGURE 2 – PPWR CATEGORIES



Companies distributed by their PPWR category.
Sample: 119 companies surveyed in 2026



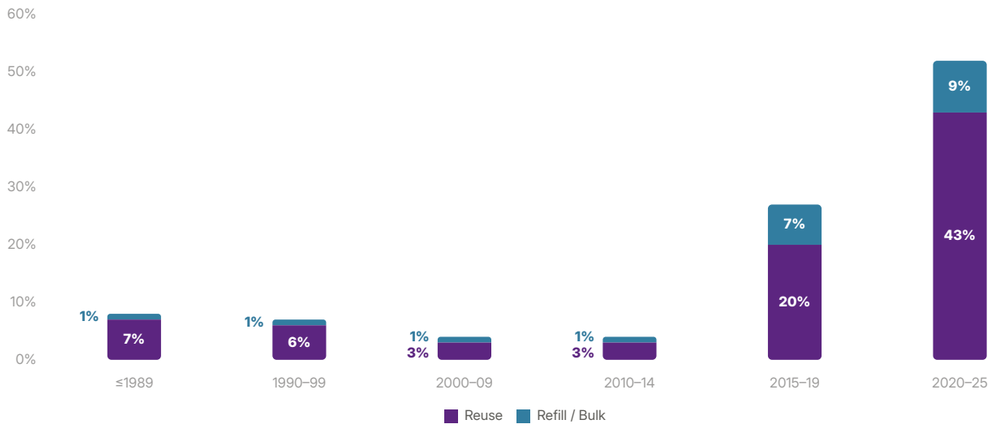
Foodprint

Transport (24% across its two sub-groups) and Take-away (23%) are the two largest PPWR categories under which the respondents fall, ahead of Beverage and Other: Food (16% each) and Refill (14%); Personal care is the smallest at 7%. Each bar is the category's share of all PPWR categories, so the bars sum to 100% (a company can still carry several tags). Companies that operate in various PPWR categories are usually:

- Brands or retailers offering both Food & Personal Care products in reusable packaging.
- Reuse system managers / poolers that offer a service that can fit various packaging formats: e.g. food, beverage & take-away.
- Cleaners that can clean various packaging formats: e.g. beverage, food, take-away and transport packaging.
- Software management companies offering a technology that can be applied to various packaging types (e.g. take-away, transport, food).

In the two previous editions, retail was one of the main sectors among respondents. It still is this year, but that group is now split across PPWR categories: Beverage, Other: Food and Other: Personal care. This edition also surveys more companies from the Transport category; considering both its E-commerce and B2B sub-groups, it becomes the largest category, just ahead of Take-away.

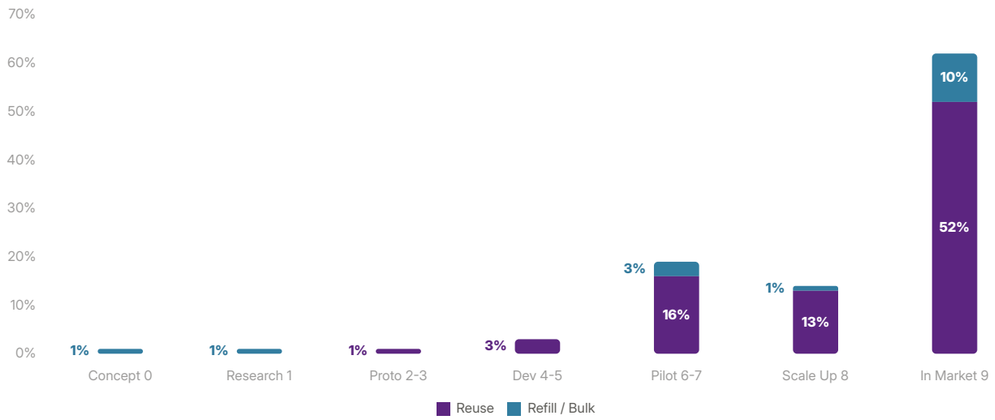
FIGURE 3 – YEAR OF CREATION – REUSE VS REFILL



Distribution of companies by year of creation, grouped by system type (Reuse vs Refill/Bulk).
Sample: 121 companies surveyed in 2026

The respondents remain young: of the 121 companies reporting a founding year, 77% were created from 2015 onward (93 companies) and 50% since 2020 (60). This share is a little less pronounced than in the previous two editions (84% post-2015 in last year's edition), because this edition also reaches a more established base – 18 companies were founded before 2000, including 10 before 1990, almost all of them reuse operators with long-standing industrial or deposit-return roots. The predominance of young companies helps explain the modest revenue brackets that appear later in figure 18, while this older cohort confirms that reuse systems have been operating in Europe for several decades. The older cohort results from a deliberate choice: by extending the mapping to long-established Transport packaging operators, this edition ensures the report speaks for the whole industry rather than only the youngest reuse companies in the most recent categories, such as e-commerce and take-away. Reuse today is made up of both well-established companies that have been active in the retail and Transport packaging sectors for decades and are still here as they are competitive compared to single-use as well as young, innovative firms.

FIGURE 4 – SOCIAL READINESS LEVEL (SRL) – REUSE VS REFILL



Distribution of companies by Social Readiness Level, grouped by system type (Reuse vs Refill/Bulk).
Sample: 113 companies surveyed in 2026

Most solutions remain operationally mature rather than experimental: **77% sit at SRL 8–9 (Scale-up / In-market) and 62% are fully in-market (SRL 9)**, consistent with the Barometer's focus on operational data rather than early experimentation. That top share has eased slightly across editions (77% in the this edition over 82% in for 2025 and 85% for 2024,) as a growing pilot-stage cohort enters the sample: SRL 6–7 projects have risen from 6 in 2024 to 13 in 2025 and 20 this year, while early-stage prototypes stay rare (about 5% at SRL 0–5).

MBS Solutions

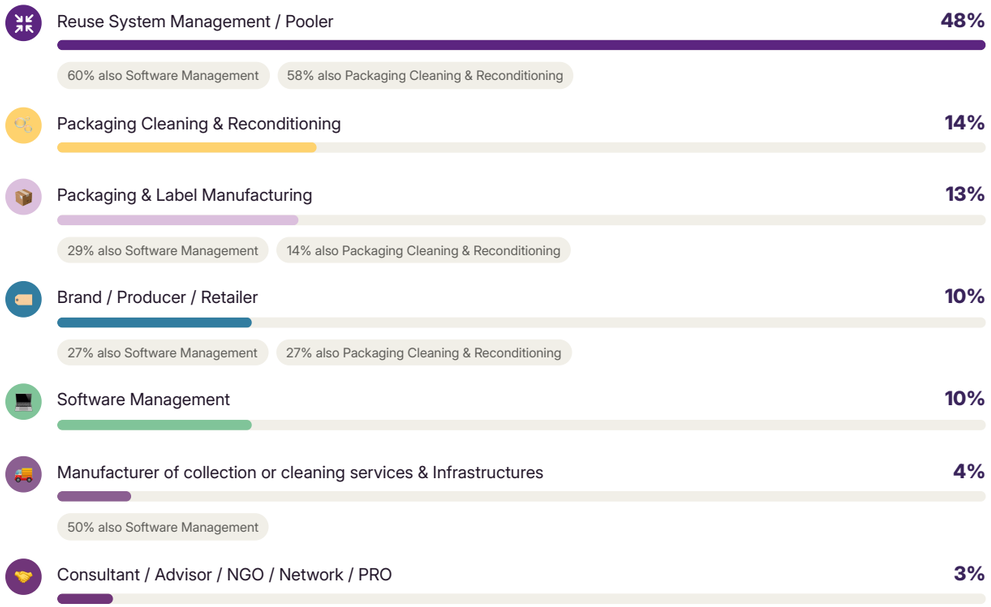
REUSE SYSTEMS

ALL PPWR CATEGORIES COMPARED

All key performance indicators broken down across the four PPWR reuse categories

MAIN ACTIVITY, EMPLOYMENT & REUSE SYSTEM TYPE

FIGURE 5 – REUSE, COMPANIES' MAIN ACTIVITY



Breakdown of companies by main activity, shown as %. For each main activity, the % of those companies that also reported "Software Management" and/or "Packaging Cleaning & Reconditioning" as an additional in-house activity is shown in grey under each bar.
Sample: 111 companies surveyed in 2026

Reuse System Management / Pooler is by far the largest main activity, reported by about 48% of respondents. They are vertically integrated (shown in grey under each bar): 60% of poolers also run software management in-house and 58% also handle packaging cleaning and reconditioning, so "pooling" in practice bundles logistics, tracking and washing rather than being a single service. That integration is not unique to poolers – 2 of the 4 collection-infrastructure manufacturers run their in-house software while 3 of the 11 brands, producers and retailers also conduct cleaning and reconditioning activities. This suggests that software and washing are common functions across the whole value chain, and helps explain the larger, more operational workforces seen in figure 6. The near-absence of pure consultants and NGOs (3 of the 111 respondents) confirms the sample is composed of companies that physically operate reuse systems rather than advise on them.



Euro Pool System



Pandobac

CASE STUDY - PANDOBAC - FRANCE

Pandobac is what "pooler" means in practice – integrating software management, packaging cleaning and reconditioning. It runs a turnkey reuse service for the food supply chain – renting, tracking, washing and handling the reverse logistics of reusable crates that replace single-use cardboard and EPS boxes between businesses. Its platform connects to clients' ERPs by API to monitor rotation rates, and the company identifies losses as the main cost driver in reuse – the same economics that make the return rates in figure 14 decisive.

Pandobac works with all companies that purchase transport packaging (mainly cardboard and EPS boxes) to pack and deliver their products to clients. Its customers operate across the entire food supply chain – from producers, cooperatives, and manufacturers to distributors and wholesalers – supplying both retail (generalist and specialist stores) and foodservice (commercial and collective catering).

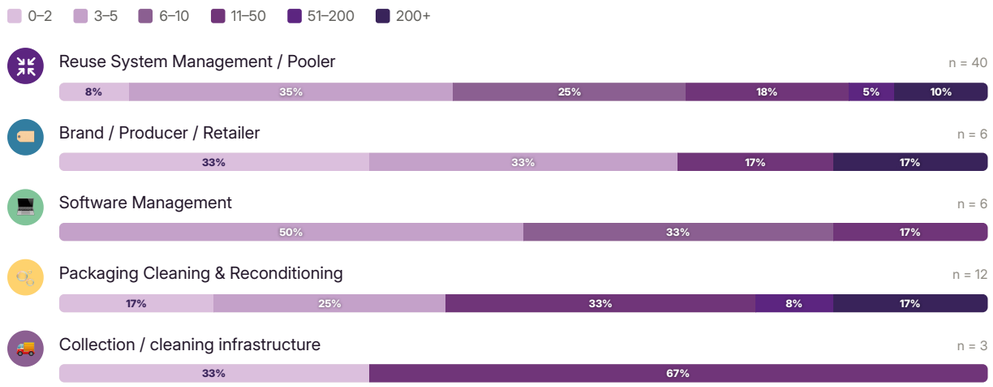
For several years, Pandobac has made the case that a reusable solution can be as cost-effective as single-use alternatives while improving both logistical and environmental performance. Its tracking platform, connected to ERPs and automated systems via an API, enables full control of rotation rates, minimises losses and optimises the management of logistics flows. This precise tracking directly enhances clients' economic and environmental performance.

The Pandobac model is economically viable and quickly becomes profitable beyond a certain activity volume – this volume is estimated at around 1,5 million crates. The company reports **client cost savings of up to 30%**, along with operational benefits such as reduced handling time, fewer product losses thanks to crate robustness, and better ergonomics that help reduce repetitive strain injuries.

According to Pandobac, reusable packaging has become a competitive advantage for suppliers looking to meet the growing demand from retailers and restaurants for responsible solutions. To date, Pandobac counts more than 2 million crate rotations! Meaning 2 million uses of crates, each one replaces a single-use package. The return rate is above 98%.

Pandobac's model shows that a reuse service can be both sustainable and economically competitive at scale.

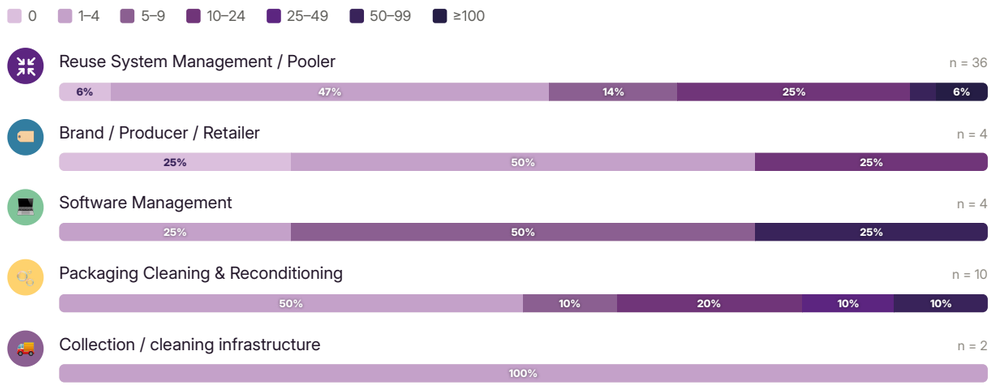
FIGURE 6 – REUSE, EMPLOYEES (FTE)



Distribution of companies by number of FTE employees working on reusable packaging, shown as % of each main activity's own respondents (reuse companies).
Sample: 67 companies surveyed in 2026

Reuse teams are still lean: across the 67 reuse companies shown, **the median company employs 6 people on reuse, and 60% have between 1 and 10 FTE (one in ten has two or fewer)** – consistent with the young, structuring-phase profile of figure 3. A smaller group of large employers sits alongside them: 15% have more than 50 FTE and 10% more than 200. These are the established industrial poolers and washers, they also account for the older founding dates in figure 3.

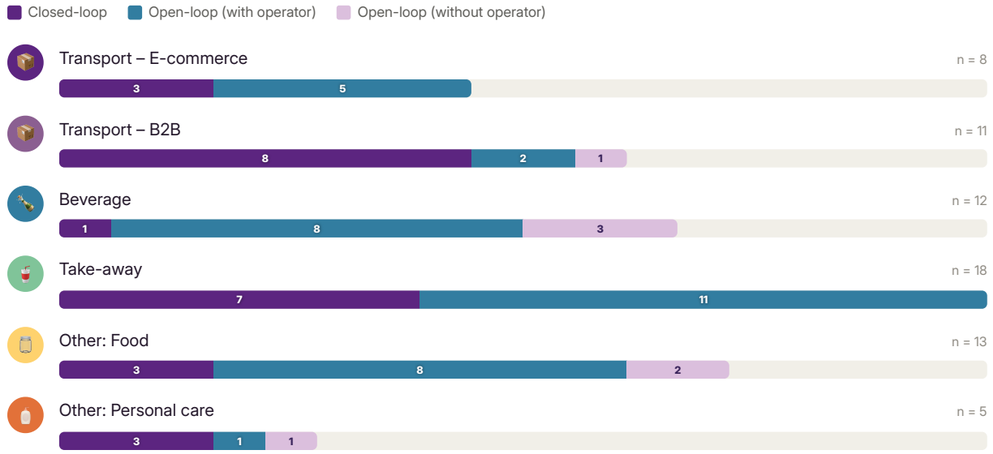
FIGURE 7 – REUSE, PLANNED RECRUITMENTS



Distribution of companies by number of FTE recruitments planned within 2 years, shown as % of each main activity's own respondents (reuse companies).
Sample: 56 companies surveyed in 2026

95% of the 56 reuse companies plan to take on new staff within two years, and only 5% plan none. For most companies, the increase is modest, often one to four new employees, while a small group plans substantially more: 11% plan 25 recruitments or more, and two companies plan 100 or more. This can concern companies such as Le Fourgon in France, highlighted in the 2024 version: the company recruits massively as it provides permanent contracts to its delivery drivers. Added together, these 56 companies expect to create roughly 690 new reuse jobs within two years. Scaled by this report across the roughly 630 companies now mapped in Europe (see methodology), that points to somewhere in the region of 5,500 to 7,500 new jobs over two years, the lower figure leaving out the two companies that plan 100 recruitments or more. This confirms, and likely exceeds, the 2024 edition's estimate of around 3,000[1]. The increase comes mainly because the mapped population has nearly doubled since then (from about 380 to 630 companies), while the typical company's hiring appetite has stayed broadly stable.

FIGURE 8 – REUSE, TYPE OF SYSTEM



CLOSED-LOOP
The same packaging cycles inside one controlled loop, owned by a single party, always returning to be cleaned and reissued – never shared with outside companies.

OPEN-LOOP (WITH OPERATOR)
Packaging is shared across many independent companies; a third-party operator owns the pool, collects used units from wherever they end up, reconditions them, and reissues them to the next user – who hands them back into the operator's network, not to the original sender.

OPEN-LOOP (WITHOUT OPERATOR)
Packaging is a shared, standardized format reused across many companies, with no operator owning a fleet – the common standard (sometimes an association) does the coordinating, and users refill or swap identical units directly.

Type of reuse system operated (closed-loop / open-loop with system operator / open-loop without system operator), by PPWR reuse category – bar length is proportional to the number of respondents in that category and each segment is labelled with the number of companies (a company can appear in more than one category).
Sample: 51 companies surveyed in 2026

Of the 52 companies answering, 26 report an open-loop system with a system operator (50%), 22 a closed-loop system (42%) and 4 an open-loop system without operator (8%).

In Transport – B2B, 8 of 11 report a closed loop. In Beverage, Take-away and Other: Food, the most reported model is the open loop with an operator (8 of 12, 11 of 18 and 8 of 13).

With only 51 respondents, this table is indicative and might not be representative of the industry. The open-loop model (without operator) is the least represented. It barely appears in the chart – almost absent even in Transport – B2B (pallets, crates) – yet it includes some of the largest reuse systems in Europe: EPAL's Euro-pallet exchange (670 million pallets)[11] and Germany's Mach Mehrweg Pool – detailed in the case studies. These models are far bigger on the ground than the way they appear in our sample and the case studies below are included partly to correct that picture.

CLOSED LOOP EXAMPLES

CASE STUDY
CIRQLE
DENMARK

Cirqle equips a large Danish company's offices with reusable cups (each with a unique RFID and QR code) and runs the whole loop – cups, washing and tracking platform. The cups circulate as part of the daily coffee setup and are scanned during washing. After 19 months, Cirqle reports a 99% documented return rate, 1.3 tonnes of single-use packaging avoided and 3.2 tonnes of CO_2e saved.

CASE STUDY
PRS PALLET RETURN SYSTEM
NETHERLANDS

PRS operates what it calls a "closed pool reuse system" of standardised pallets for Europe's polyolefin (PE/PP) producers, who ship resin to plastics converters on them. In this "divergent (many to few) value chain" – roughly 100 producer sites feeding 15,000+ converters across Europe and Turkey – the PRS network collects the empty pallets back for "refurbishing, relocation and redelivery" to the producers. The fleet only ever serves this defined set of partners and always returns to PRS, never the open market – which keeps it closed even at industry scale (around 70% of the polyolefins market).

OPEN LOOP (WITH OPERATOR) EXAMPLE

CASE STUDY
CIRCULAR LOGISTICS
BIKE BOX
GERMANY

Circular Logistics provides and manages the BikeBox – a foldable, 100% polypropylene reusable shipping box – as a service to the bike industry. Riese & Müller ships bikes to more than 1,000 independent dealers across Europe in it instead of cardboard. Once the dealer unpacks, the box folds flat and travels back through road-freight routes to be checked and returned to circulation. What makes it open-with-operator: the box goes through various stakeholders and a third party supplies and governs the reusable packaging – with foldability the key that makes the return part cheap enough to work. Each box is reused up to 30 times, saving around 80% of CO_2 and eliminating roughly 880 tonnes of cardboard a year.

CASE STUDY
LPR
LA PALETTE ROUGE
FRANCE

LPR owns a pool of reusable pallets and leases them to FMCG manufacturers, who ship to retailers. The empty packaging is not returned to the sender: LPR collects the empty pallets from the delivery points through "more than 147 service centres in Europe," inspects and repairs them, and redistributes them to the next manufacturer[12].

OPEN LOOP (WITHOUT OPERATOR) EXAMPLES

CASE STUDY - EPAL EURO PALLET EXCHANGE - GERMANY

EPAL is the purest no-operator model: more than 670 million[11] standardised Euro pallets circulate in an "open exchange pool." When goods arrive on an EPAL pallet, the recipient immediately hands back an identical empty one – a one-for-one swap on the spot, because every pallet is built to the same standard and fully interchangeable. EPAL is a non-profit that only holds the standard – it licenses producers and repairers and enforces quality by inspection – while the pallets are owned by and move directly between users. The shared standard does the work an operator otherwise would: there is therefore no collection, no rental and no central owner.

CASE STUDY - MMP MACH MEHRWEG POOL - GERMANY

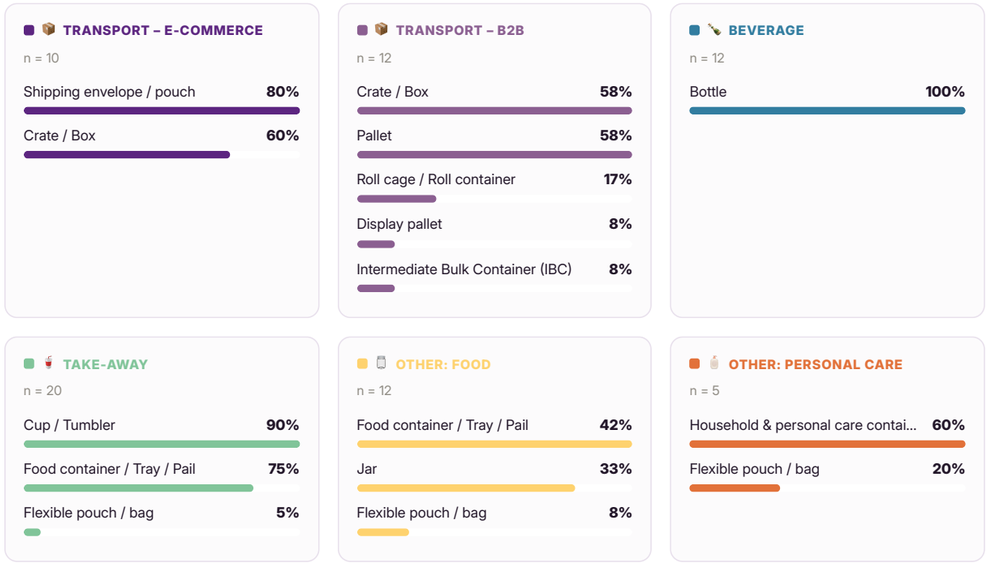
MMP is a shared pool of standardised reusable glass containers for food: milk bottles (1.0 l and 0.5 l) and jars (500 g and 250 g), together with matching reusable crates.

Dairies and other food producers fill the same containers; consumers return empties for a deposit at any shop selling the format; and an empty need not go back to the producer that filled it, because any user of the pool can clean and refill the standard containers. The pool has run for over 30 years, at times without a central organisation. In 2022 its users re-established the Mach Mehrweg Pool e.V., which sets down and develops the common rules and standards; members commit to these rules, while using the containers does not require membership. Since around 2019 the containers have also been used beyond dairy, for products such as nuts, spreads and sauces. According to a life cycle assessment commissioned by MMP, the jars can be reused up to 50 times. In 2023, MMP won the European Refillable Award.

PRS Pooling

PACKAGING FORMATS, MATERIALS & STANDARDISATION

FIGURE 9 – REUSE, PACKAGING FORMATS



Top reusable packaging formats used per PPWR reuse category. A company can appear in more than one category.
Sample: 56 companies surveyed in 2026

Each category has a clear signature format. In Take-away, 18 of the 20 companies that reported their formats use cups (90%). 15 of them use food containers (75%). Included in food containers are some dish-specific designs – the sample includes PIZZycle's reusable pizza box. Moreover, The Keepers' reverse-vending machine is designed to accept various packaging formats, among which, pizza or burger boxes. 'Other: Food' mainly uses food containers (42%) and jars (33%); and 'Other: Personal care' household & personal-care containers (60%). The two Transport sub-groups split along their respective logistics: e-commerce around parcel formats (shipping envelopes 80% – flexible, crates 60%), and B2B around crates and pallets (58% each), with roll cages, display pallets and IBCs accounting for the remainder.

Two observations emerge. Consumer-facing categories concentrate on one or two dominant, standardised formats – the mature end of reuse – whereas B2B Transport spreads across a wider range, reflecting the variety of industrial logistics. And the flexible pouch / bag is the one format that appears across three categories – though today that means two pioneers rather than a trend: washable fabric bags used for shopping in Spain, and in the United Kingdom Yoyo Grocery uses flexible plastic pouches to pack grocery and personal-care packaging (returned at a reported 94%[13]). The answers of the 56 respondents shown in the figure are split in six categories, so the smallest ones are based on very few companies: Personal care only contains the answers of five respondents. Read those small results of the categories with the lowest number of respondents as indicative, not a firm result.



Yoyo



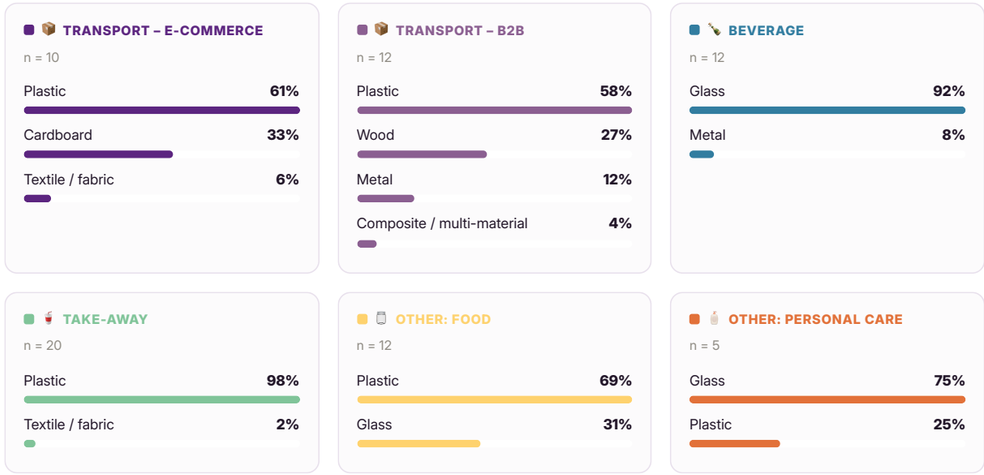
Circular Logistics

FORMATS IN PRACTICE

Some respondents illustrated these formats with real examples from their own operations:

- **Shipping envelope / pouch – Transport - E-commerce:** Rajapack Benelux proved full operational compatibility of its reusable e-commerce packaging with Amazon FR (40,000 pieces) and Decathlon FR.
- **Crate / box – Transport - B2B:** Free Pack Net's reusable transport packaging cut product damage from 5% to zero and lifted warehouse stacking from 5 to 9 levels.
- **Bottle – Beverage:** Eco Packaging Ideas moved companies from single-use to reusable bottles, with in-house fountains to refill them.
- **Cup / tumbler – Take-away:** VYTAL cites its reusable cups at the FIFA Fan Fest in Los Angeles and a full-stadium roll-out at Oracle Park, San Francisco.
- **Food container – Take-away / Food:** reCIRCLE reports some restaurants serving 60% of their meals in its reusable box.
- **Flexible pouch – Other:** Food: Moree's SmartPaks replace single-use multi-layer coffee bags from roastery to café.

FIGURE 10 – REUSE, PACKAGING MATERIALS



Materials used in reusable packaging per PPWR reuse category, shown as each material's share of all material mentions in that category (each panel sums to 100%). A company can appear in more than one category.
Sample: 56 companies surveyed in 2026

Plastic is used a lot for reuse. The three most-reported format-and-material combinations by the 55 companies reporting both a format and its material are all plastic: **plastic cups (18 companies), plastic crates (16) and plastic food containers (16)**. It is a light, rigid, washable material that survives hundreds of cycles (figure 11). Plastic is not, however, used universally: each category leans on the material that fits its product and its handling best. Beverage is built on glass rather than plastic, carried by the deposit-return and washing infrastructure that beverage reuse has relied on longest. The classic Transport pallet, likewise, remains wood, and cardboard appears mainly in e-commerce and transport. Though, as figure 11 shows, it is the least-reused material of all, closer to single-use than to a durable asset. The distribution follows the pattern of format shown in figure 9: categories with an established dominant format generally report an established dominant material as well.



Rotom

CASE STUDY - ROTOM - NETHERLANDS

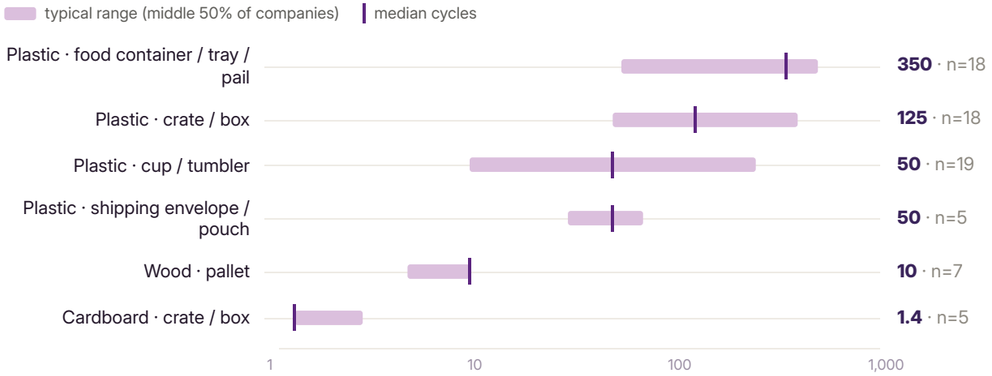
Construction is a hard case for reuse. A pallet of bricks or insulation delivered to a site, can stay there for weeks while the building goes up, and is then usually broken up. In Rotom's own 2022 description of the problem, the formats are non-standard so the receiver cannot use them again, the empty pallets end up scattered between the builders' merchant, the site and the waste container, and building materials are bought on price alone[31]. In UK construction, the Pallet LOOP – the Saint-Gobain backed pallet return industry initiative reported in 2022 that fewer than one pallet in ten is reused, against about 98% in fast-moving retail[32]. Rotom, a Dutch pallet and load-carrier company operating across Europe, has built a business on exactly this problem.

Its answer is a recovery service. The company first maps the route a product travels, from factory to merchant to site, then collects, checks, repairs and reissues the pallets that would otherwise be lost. In practice that means three things.

Its 2Return service collects pallets from merchants and from building sites. For the brick pallet, the minimum pick-up is 40 pallets, collected within five working days[31]. The pallets go to a 2Return depot, are checked and repaired, and go back to the manufacturer when the next shipment needs them.

Rotom keeps ownership of the pallet. The builder neither buys it nor has to get rid of it: Rotom owns it, lends it and takes it back. Insulation and building-products makers such as ROCKWOOL and Promonta switched to this arrangement in 2022, and **since early 2026 Rotom presents it to its customers as the simplest way to meet the PPWR's transport targets**. In a December 2021 white paper the company modelled a saving of over 40% of packaging costs and a reduction in packaging's CO2 footprint by up to 70%[33].

FIGURE 11 – REUSE, NUMBER OF CYCLES



Reported reuse cycles by packaging format & material. Each row shows the median (marker) and the typical range where the middle 50% of companies fall (Q1–Q3 band), on a logarithmic scale. Only combinations reported by at least five companies are shown; a handful of extreme lifetime-cumulative values are excluded from the range so it stays readable. The marker is the median, not the mid-point of the band, so it sits on an edge whenever several companies report the same figure: three of the seven wood-pallet respondents report 10 cycles, which places the median on the upper edge, while three of the five cardboard-crate respondents report the same low figure, which places it on the lower edge.
Sample: 72 companies surveyed in 2026

Reported reuse cycles show the widest spread of any figure in the survey: for the same format and material, companies report anything from a handful of trips to hundreds. Part of this reflects the difference between a packaging's theoretical design life and the cycles it actually completes in operation. Even though the survey explicitly asked for figures “based on operational figures, not theoretical assumptions”, some answers seem to be more theoretical than proven in practice. The results are therefore indicative only.

Rather than an average, which would be driven by these extremes, the figure shows the median and the range within which the middle half of companies fall. On that basis, **plastic food containers and crates are the most reused (median around 125–350 trips)**, plastic cups around 50, while cardboard crates are barely reused (median 1.4). Combinations reported by fewer than five companies – including glass bottles, whose few answers were too inconsistent to publish – are deliberately left out rather than turned into a misleading number. As an external yardstick, Reusable Packaging Europe reports an average of 56 rotations over a typical 8-year asset life for reusable transport packaging, within a range of 25 to 120 (2020 data)[7]. That benchmark covers B2B transport packaging, and can therefore be set against the two transport formats shown here: plastic crates, at a median of 125 rotations slightly exceed the range, while wood pallets, at 10, fall below it.

The cardboard result raises a question. The PPWR’s article 11 requires reusable packaging to be "designed to accomplish as many rotations as possible". It is not yet clear whether boxes that travel once or twice meet that test.



Gordon

CASE STUDY - GORDON - SWEDEN

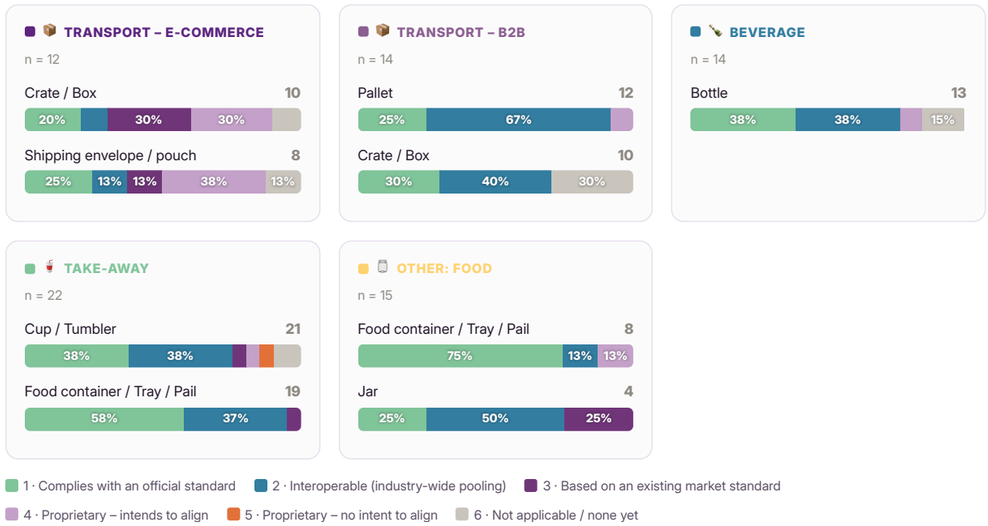
Gordon Circular provides a reusable bag for grocery home delivery.

Gordon Circular’s solution not only reduces single-use packaging waste, it also strengthens customer relationships. Data from one of Gordon’s grocery customers, after more than 50,000 completed loops with Gordon Circular, shows that the solution has avoided the use of approximately 128,000 units of single use packaging (representing around six tonnes). Gordon states that the bags have been used more than five times on average. According to Gordon's life cycle assessment, five uses is the point from which a reusable bag has a lower climate impact than a paper bag used once. In the Jönköping project, each bag had been used 7.3 times on average by January 2026, over more than 19,000 deliveries. The return rate was 96%. Beyond the environmental benefits, the customer data also shows strong commercial effects, including doubled customer lifetime value and significantly reduced churn.

Gordon also ran a project with the Swedish municipality of Jönköping, the retailer Coop and Samhall, a state-owned company that washes and repairs the bags. In this project, the municipality orders groceries for its elderly care services, and Gordon delivers the groceries in reusable bags. At the next delivery, the driver takes back the bags used the time before. The staff of the care services therefore have fewer paper bags to handle, and do not need to organise a separate return.

The staff in elderly care describe the reusable bags as easier to handle. Unlike paper bags, the reusable bags do not rustle, and they take up less space once unpacked. In homes for people with dementia, the staff value the lower noise, which makes the surroundings calmer for residents.

FIGURE 12 – REUSE, STANDARDISATION



Standardisation of reusable packaging: within each PPWR reuse category, each packaging format (ordered by its reported references) is split by the six standardisation grades. The number after each format is its count of reported references. A format's grades read left-to-right from 1 (complies with an official standard) to 6 (not applicable / none yet). Formats with fewer than three reported references are not shown, and Other: Personal care is omitted entirely – too few answers to be representative.
Sample: 62 companies surveyed in 2026

Standardisation is uneven and appears to follow the maturity of the shared systems in each format. **Grades 1 and 2 – official standards and industry-wide pooling interoperability – are the most common answers across formats**. Grade 2, "designed for interoperability within an industry-wide pooling system", dominates the established B2B formats (pallets 67%) and takes a large share of cups, bottles and food containers: most reusable packaging is built to move within a shared pool rather than one company's private loop. The formats tied to the most mature systems are also the most formally standardised – food containers and bottles carry high shares of grade 1, compliance with an official reuse standard (58–75% for food containers). Proprietary designs concentrate where no common standard has settled yet: e-commerce shipping envelopes are the most proprietary (43% "intend to align"). Sykell, presented in the case study below illustrates grade 2 in practice: its PREFILL container has been designed to operate within an existing 6,000-point return network rather than a dedicated one. Standardisation is emerging format-by-format, led by the pooled formats – consistent with figure 21, where standardisation is the least common form of collaboration (31%).



Sykell

CASE STUDY - SYKELL - GERMANY

How Sykell brought reusable packaging to the supermarket aisle. Walk through any supermarket today and almost everything on the shelves is single-use. Yoghurt, dips, ready meals, snacks: each sold in packaging designed to be thrown away. The reuse movement had transformed coffee cups and takeaway boxes. The supermarket shelf, somehow, had been left behind. Sykell set out to change that, but what followed was not a straight path.

The company's first prototype for PREFILL used stainless steel. It felt right: durable, premium, serious. But Sykell has an internal rule that every new solution must demonstrate a measurable ecological benefit before it goes to market, so it ran the carbon numbers. The results were humbling. Steel is heavy, and heavy means more emissions per kilometre in the return journey. The company had built a prototype it believed in, and the data told it to bin it.

The reset led Sykell to polypropylene, but standard PP was not sufficient either. It ran an extensive series of durability and food shelf-life tests to find a material that matched single-use performance across repeated washing cycles. The result is a container with a newly developed ultra-high oxygen barrier, enabling shelf lives of up to 12 months and more than 25 reuse cycles. Critically, it is monomaterial and therefore 100% recyclable at the end of its life.

Reusable packaging for retail has failed before on logistics. Many systems ask brands to build new return infrastructure, and most brands simply will not. PREFILL does not ask brands to build anything. Sykell's existing EINFACH MEHRWEG To-Go system already operates across more than 6,000 reverse vending machine return locations nationwide. PREFILL plugs directly into that same infrastructure. Each container is serialised and tracked through CIRCULAR ERP, Sykell's pool management software, giving brands full visibility without building any underlying infrastructure themselves.

PURCHASE PRICE VS EQUIVALENT SINGLE-USE PACKAGING

FIGURE 13 – REUSE, COST FOR THE COMPANY VS FOR THE CONSUMER



*Cost of reusable packaging versus its single-use equivalent, seen from two ends: the top bar of each pair is what the **company** pays to buy or rent the packaging; the bottom bar is what the **end consumer** pays at the shelf for the product inside it. Transport appears here only as its business-to-business "Transport – B2B" sub-group – pure transport packaging with no final consumer, so it shows a "Company pays" bar only. "More expensive" = the reusable option costs more than the single-use one; "cheaper" = it costs less. Shown as % of each group's own respondents. The Transport – E-commerce sub-group (8 answers, business-to-business acquisition only) and the Other: Personal care category (5) are not shown, as too small to be representative.*
Sample: 55 companies surveyed in 2026

Companies were asked to compare reusable packaging with single-use packaging from two sides, and to answer cheaper, equal or more expensive. On the company side, the question covered what the company pays to buy or rent the packaging. The survey did not impose a method of calculation. The results show each company's own assessment: whether reusable packaging costs the company more or less than single-use packaging. On the consumer side, it covered the shelf price of the product sold in reusable packaging.

Because these two questions are really linked, the report shows them as a single figure with the bars side by side. The top bar shows what a company pays to use reusable packaging: 65% say the reusable option currently costs more than single-use, rising to 87% in Food. The bottom bar, what the consumer pays at the shelf: only 35% is more expensive, while 54% is equal and 11% is cheaper. (Transport – E-commerce and Other: Personal care are not shown: too few answers to be representative.) **Of the 33 companies that pay more and also report their shelf price, 19 (58%) do not pass this cost on** – they sell to the consumer at an equal or lower price, absorbing the premium themselves. The one place the packaging is often already cheaper to buy is bulk transport (Transport), where a pooled asset spreads its cost over many rotations and capitalises on existing mature logistics infrastructure (figure 11) – the same economics that make cost reduction the core B2B pitch of poolers like IFCO, CHEP and PRS.

CASE STUDY
THE OCEAN PACKAGE
GERMANY

The Ocean Package answers the question figure 13 raises – some reusable packaging can cost more to acquire, so when does that reverse? The answer lands on the higher-cycle formats of figure 11.

The company runs what it describes as Germany's first closed-loop system for parcels[23]. The box is made entirely of polypropylene, **around 70% of it recycled**, of which 20–30% is plastic collected near coastlines before it reaches the sea. **Its monitoring software tracks where the boxes are, their condition and the number of cycles completed**.

A box is reused up to 20 times, and the company claims about 95% less waste and up to 80% less CO2 than single-use cardboard. It states that for its customer Tribu, a toy-rental company, the box is a financial advantage from the third delivery. Its customers include Tribu and Outfittery, and it names UPS as a partner.

The Ocean Package reports that its customers have seen up to 70% cost savings over single-use packaging when reuse cycles exceed 20 turns. One of its customers saved €500,000 in 2025 by switching to reusable packaging.

That is the whole economics of reuse in one number. The premium is paid once, at purchase; the saving is collected every time the packaging comes back. Which is why figure 14 and figure 15 – how much comes back, and what makes it come back – decide whether the business case in figure 13 is ever realised.



The Ocean Package

CASE STUDY - FREE PACK NET - SWITZERLAND

Free Pack Net shows that the cost of packaging is more than its purchase price. Damage and storage count too.

What it does. Free Pack Net is a Swiss company. It rents out reusable protective packaging for large household appliances. The packaging is a rigid polypropylene shell, with spacers inside shaped to fit the appliance. It replaces the polystyrene foam, cardboard, shrink film and wood that are normally used once and thrown away[34].

How it works. The shell is rented for each trip, not sold. After delivery, Free Pack Net collects it through retailers and logistics partners and, after refurbishment and cleaning, brings it back to the factory. After 20 trips, the shell is ground down and the material is used to make a new one. Each shell carries multiple RFID tags, so every unit can be traced[34-35].

First saving: fewer damaged appliances. Between 5 and 8% of appliances are damaged somewhere between the factory and the customer. That is about 30-50 million appliances a year worldwide. Each damaged appliance costs money: it is thrown away, sold at a discount, taken back, repaired or repacked[34]. In total an average of 15 euro per piece.

Second saving: more storage space. In a warehouse, appliances are stacked on top of each other. With cardboard and foam packaging, each appliance has to carry the weight of all the ones above it. So they can only be stacked a few levels high, and the company reports that half of the warehouse space stays empty. With the reusable packaging, the shell carries the weight instead of the appliance: up to 1,200 kg. The height of the stack no longer depends on how strong the appliance is. It is limited only by the height of the building.

Third saving: the overall dimensions of the reusable protective packaging are defined in accordance to guarantee the maximum product protection and the increase of products in the major transport means, thereby reducing logistics and shipping costs.

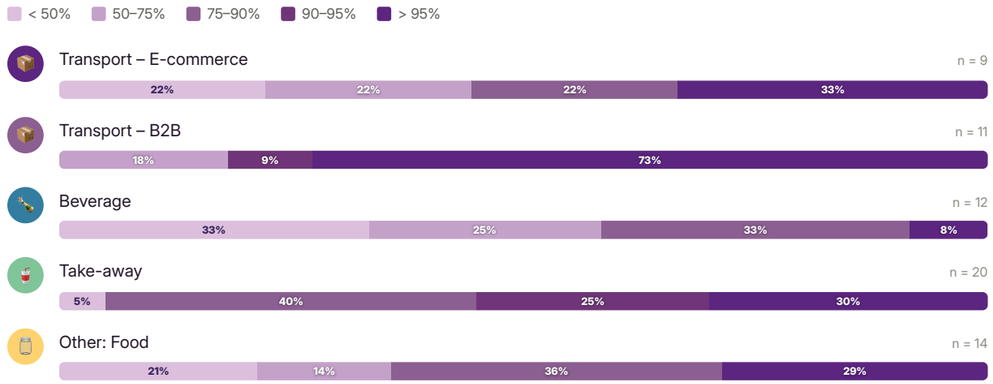
Results. The total cost falls by 22 EUR per appliance on average. CO2 emissions fall by 76% and energy use by 85%. Free Pack Net reports that damage fell from 5% to zero[13-35] and that stacking rose from 5 to 9 levels (usually the height of a warehouse is 9 meters).



Free Pack Net

RETURN RATES

FIGURE 14 – REUSE, RETURN RATES



Reported return rates for reusable packaging, shown as % of each PPWR reuse category's own respondents. Transport is split into E-commerce and B2B, as elsewhere in the report; groups with fewer than six respondents (Other: Personal care) are omitted as too small to be representative. Figure 15 then breaks the same return rates down by return mechanism.
Sample: 54 companies surveyed in 2026

Return rates measure whether packaging actually comes back – the foundation any reuse system stands on. In business-to-business Transport recovery is near-total – **73% of Transport – B2B companies report a return rate above 95%** – because the packaging moves inside a contracted network. Consumer-facing categories are more varied but not far behind when the system is built for it: Take-away already reaches more than 90% for 55% of companies, and Other: Food tops 95% for 29%. Lower return rates – Beverage, with 8% above 95% – appear to reflect open retail loops that are still maturing rather than a structural limit. The pattern lines up with figure 8 (Transport is closed-loop) and figure 16 (high tracking adoption): controlled networks with tracked assets, or an appropriate consumer incentive, achieve the highest recovery rate. Figure 15 regroups the same return rates by mechanism. (Other: Personal care, n=5, is omitted as too small to be representative.)

CASE STUDY - AUCXIS STAR - BELGIUM

Aucxis describes STAR, its RFID reuse system, as follows.

STAR: RFID enables large-scale reuse for sports venues and events. STAR enables fully automated reusable packaging systems for stadiums, festivals and public events by combining RFID technology with instant, automatic deposit refunds. Every reusable item is uniquely identified and linked to the original payment, allowing visitors to return cups without apps, tokens or manual intervention.

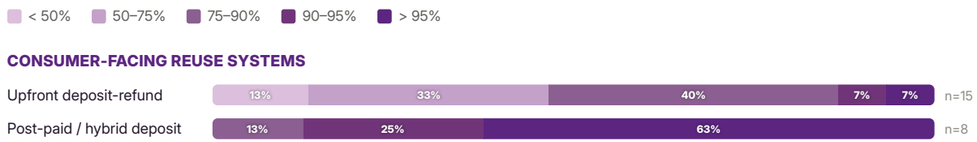
At Royal Antwerp FC, Aucxis reports a 98% cup return rate, which it describes as “far above the legally required 90%”. It reports that automated returns reduced manual handling by 75%, while faster service increased beverage sales by more than 7% during peak moments. The club replaces up to 1 million single-use cups per season, avoiding approximately 7 tonnes of plastic waste annually.

STAR has since been successfully deployed across a wide range of large-scale venues and events, including RSC Anderlecht, Royale Union Saint-Gilloise, KVC Westerlo, Tomorrowland, the Ghent Winter Festivities, Bevers & Bevers / Cupnation events (cyclocross, running events and festivals), and Edgbaston Cricket Stadium (UK) – providing organisers with higher return rates, lower operational costs, item-level traceability and reliable compliance reporting.



Aucxis

FIGURE 15 – REUSE, RETURN RATES BY RETURN MECHANISM



UPFRONT DEPOSIT-REFUND

A deposit is charged when the packaging is issued and refunded when it is returned.

POST-PAID / HYBRID DEPOSIT

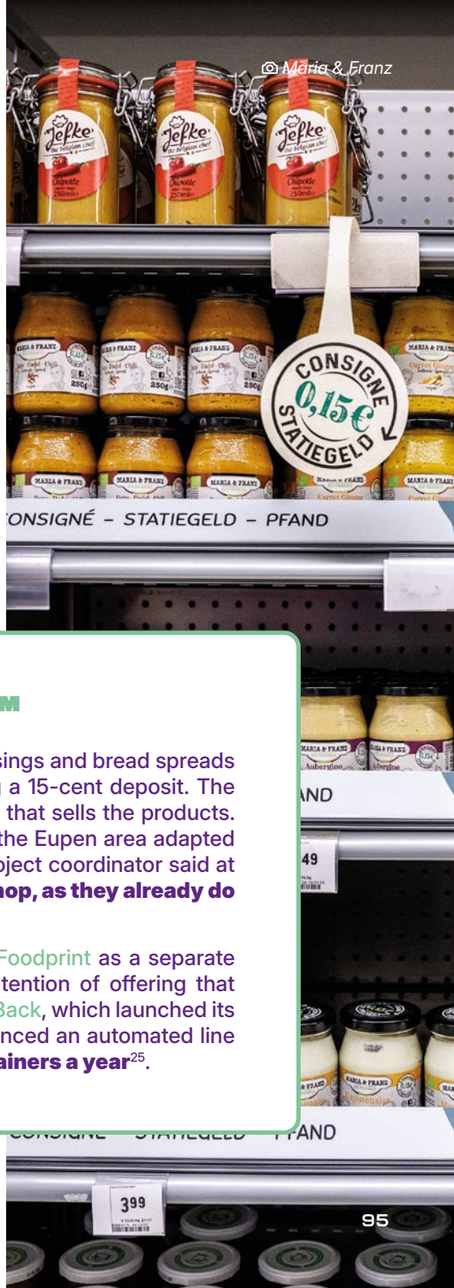
No deposit is paid when the packaging is issued, though a financial guarantee may be held. Users are charged only if it is not returned. Because it works by reconciliation over time rather than a charge at every transaction, it can carry far less operational friction.

The same return rates as figure 14, regrouped by how a company secures its returns, shown as % within each bar. Only consumer-facing systems appear: business-to-business Transport recovers its packaging through contractual agreement rather than a consumer deposit, so it has no deposit mechanism to group by, and its return rates are shown in figure 14. Transport – E-commerce is counted here, since the parcel reaches a final consumer. Bars are split by deposit type: "post-paid" = charged only if the packaging is not returned (penalty-based); "hybrid" combines that with a deposit-refund. Consumer systems that report no formal deposit are a third route, not shown as a bar. Small sample: the consumer post-paid/hybrid bar rests on 8 companies – read as directional.
Sample: 23 companies surveyed in 2026

Only consumer-facing systems appear here: business-to-business Transport recovers its packaging through the service contract rather than a deposit, so it has no mechanism to group by, and figure 14 is where its return rates belong. **Among the 15 consumer-facing companies using an upfront deposit-refund, 1 reports a return rate above 95% and 2 above 90%. Among the 8 using a post-paid or hybrid deposit – where the customer is charged only if the packaging is not returned – 5 report above 95% and 7 above 90%**.

The 2024 edition reached a similar reading: "Post-paid deposit schemes seem to be more efficient than upfront deposit schemes when it comes to reaching the highest return rates". The 2025 edition noted that penalty-based systems allow "higher equivalent incentives". Kleen hub's "deposit-free" tap-to-borrow (see case study) and the Borro model featured in last year's edition are, in substance, post-paid deposits requiring no action from the consumer. Kleen hub reports return rates of 97–99% and Borro an average return rate of 93% at Club Brugge. External trial data points the same way: in the UK Refill Coalition's online-returnables pilot, packaging came back at an 86% return rate with no consumer deposit at all – the return step was folded into the existing delivery round instead[2]. However, it should be noted that the type of deposit scheme selected and therefore the return rates can also be heavily dependent upon the type of reuse model. For instance, the 2024 edition highlighted that post-paid deposit models could be more difficult to apply in retail stores that might lack the necessary IT system. The results suggest that the return rate mechanism should be adapted to the context rather than applied uniformly: a contractual arrangement in B2B, an appropriate and ideally frictionless deposit for consumers, supported by legislation and consumer education.

UPFRONT DEPOSIT-REFUND IN PRACTICE



CASE STUDY - CMB MARIA & FRANZ - BELGIUM

La Conserverie & Moutarderie Belge (CMB) sells sauces, dressings and bread spreads under its **Maria & Franz** brand in reusable glass jars carrying a 15-cent deposit. The customer gets the deposit back on returning the jar to a shop that sells the products. In a pilot launched in November 2023, three supermarkets in the Eupen area adapted their bottle-return machines to accept the jars. Foodprint's project coordinator said at the time that **customers can bring empty jars back to the shop, as they already do with beer bottles**[24].

Two other Belgian companies make it possible. CMB set up Foodprint as a separate organisation to run the reverse logistics, with the explicit intention of offering that service to other producers. The jars are then washed by Bring Back, which launched its washing unit in early 2022. In August 2025 Bring Back announced an automated line that it says can eventually handle up to **80 million glass containers a year**[25].

Borro

CASE STUDY - BORRO - BELGIUM

Borro is the clearest demonstration that the best consumer deposit may be the one the consumer never feels.

At **Club Brugge's Jan Breydel stadium**, the club tested three competing systems between January and May 2025 before going live with Borro that July; installation took a week and a half. The stadium now handles **more than 45,000 cups per home game at a 93% average return rate**.

The mechanism is the point. Nothing is charged when a fan takes a cup: **Borro places a €1.50 temporary reservation on the payment card**, which is released automatically within minutes once the cup is returned[26]. A fan who returns the cup pays nothing and does nothing – there is no queue for a refund, no token, no app. Only a fan who walks off with the cup is actually charged.

Borro reports an estimated **€9,889 a year** less lost to deposit fraud, **€4,832 a year** saved in refund transaction fees, **a third fewer staff** needed on returns, and – because the queue moves faster – **7.0% higher spend per fan** and an 8.01% higher average transaction. "What made the difference was how smooth Borro works," says fan operations director Mattijs Buyck. "It's the most innovative system we tested."[26]

CASE STUDY - KLEEN HUB - DENMARK

kleen hub is a company based in Copenhagen, Denmark. It supplies cafés, canteens and event venues with a system for lending reusable cups and food containers to their customers. The system is called Tap&Reuse. The customer taps a payment card at the counter to borrow the cup or container, and returns it at a return point after use. The customer needs no app, and pays nothing when borrowing.

Tap&Reuse, marketed as the world's first deposit-free, app-less reusable packaging system. The company reports 97–99% return rates across deployments, a 20× jump in engagement after dropping the app requirement, and live UK sites including Costa Coffee, the British Library and National Trust locations, working across cups, bowls and food containers[13].

At the moment you tap, no payment is taken. The company's terms provide for a non-return fee – 3 GBP or 3 EUR for a coffee cup – charged to the card if the packaging is not returned within the return period; the item then belongs to the customer[14].

From the consumer's side the two models are therefore financially identical: return it and you pay nothing; keep it and you are out the deposit amount – in a classic deposit-refund and in Tap&Reuse alike. What changes is timing and float: a traditional scheme holds the money for the whole borrowing period, while Tap&Reuse leaves it in the account and only pulls it if consumers fail to return the packaging. That is a genuine UX and cash-flow improvement, but it defers the deposit and makes it conditional – it does not remove it. "Deposit-free" holds only under a narrow definition (money held upfront); under a functional one – a refundable sum at risk if you do not bring the item back – the stake that guarantees return is still there, moved to the back end.

That invisibility is the turning point of a well-designed post-paid / hybrid deposit: it can be so seamless it reads as no deposit at all – the same mechanism behind the Borro model we highlighted last year.

OPERATIONS & LOGISTICS

FIGURE 16 – REUSE, TRACKING TECHNOLOGIES

TRANSPORT – E-COMMERCE
n = 10

QR codes	90%
Barcodes	50%
RFID	30%
GS1 2D-data-matrix-code	20%
LoRaWan	10%

TRANSPORT – B2B
n = 11

RFID	73%
QR codes	64%
GS1 2D-data-matrix-code	36%
Barcodes	18%
Gray code	18%
Manual tracking	18%
LoRaWan	9%

BEVERAGE
n = 6

QR codes	50%
Barcodes	33%
Manual tracking	33%
RFID	33%

TAKE-AWAY
n = 16

QR codes	88%
RFID	63%
GS1 2D-data-matrix-code	25%
Barcodes	13%
Gray code	6%

OTHER: FOOD
n = 11

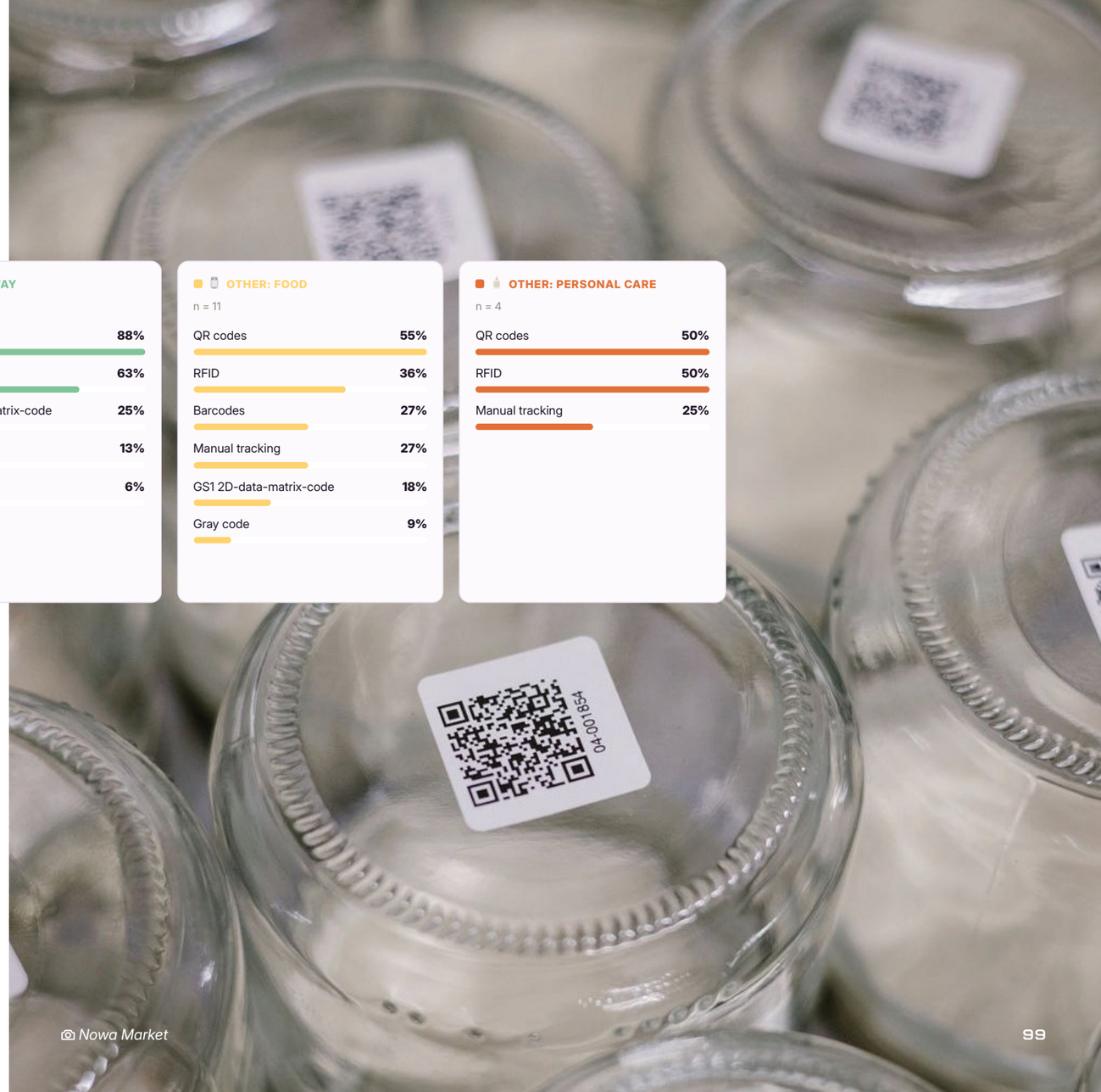
QR codes	55%
RFID	36%
Barcodes	27%
Manual tracking	27%
GS1 2D-data-matrix-code	18%
Gray code	9%

OTHER: PERSONAL CARE
n = 4

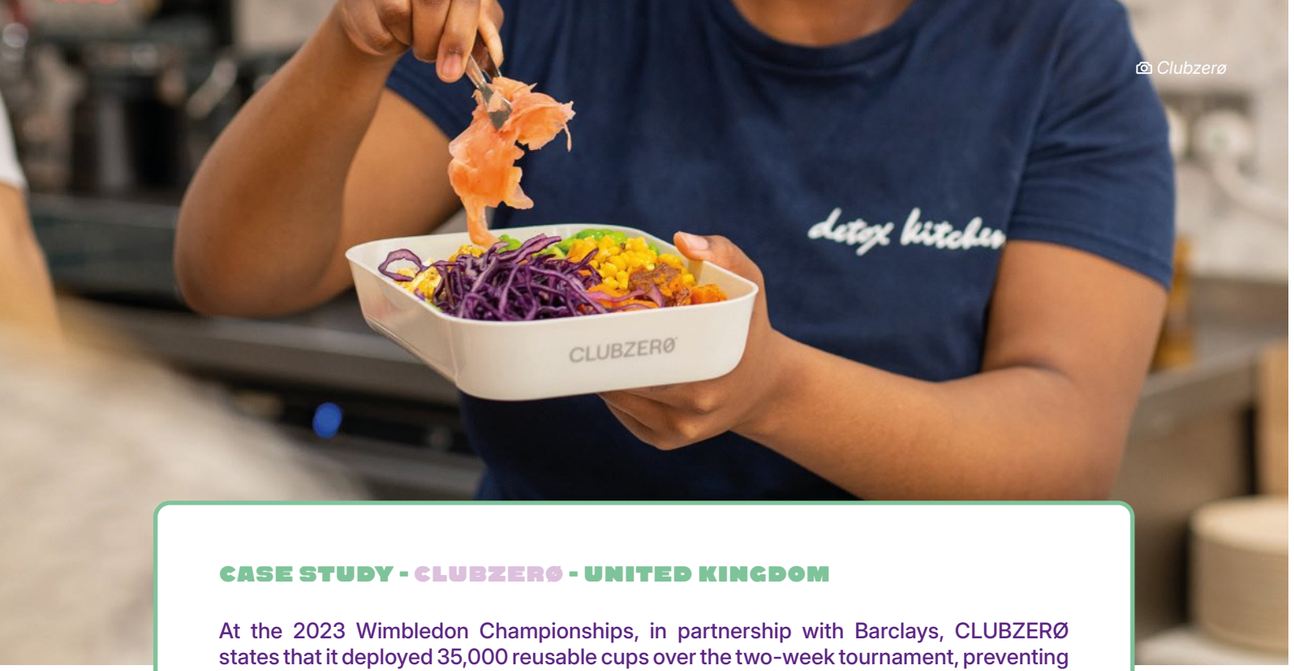
QR codes	50%
RFID	50%
Manual tracking	25%

Adoption rate of tracking technologies for reusable packaging, ranked largest to smallest and shown as % of each PPWR reuse category's own respondents. A company can appear in more than one category. Small panels: Personal care rests on 4 companies and Beverage on 6, and the figure covers only the 42 respondents whose activity includes software management – read the smaller panels as directional.
Sample: 42 companies surveyed in 2026

QR codes are the default tracker in every category, from 50% in Beverage and Personal care up to 90% in Transport – E-commerce. Transport – B2B is the only category where RFID (73%) outranks QR (64%). Take-away reports QR 88% and RFID 63%, while the consumer-goods categories – Beverage, Other: Food and Personal care – stay lower on QR (50–55%) and lean more on manual tracking (25–33%). Against the 2025 edition the ranking holds but shifts up: QR stays on top (about 70% of respondents, vs 74%), RFID climbs to roughly half (from 41%), and the sharpest jump is **GS1 2D data-matrix codes, from 3% to about 17%**. Personal care rests on 4 companies and Beverage on 6: these panels are indicative.



Nowa Market



Clubzerø

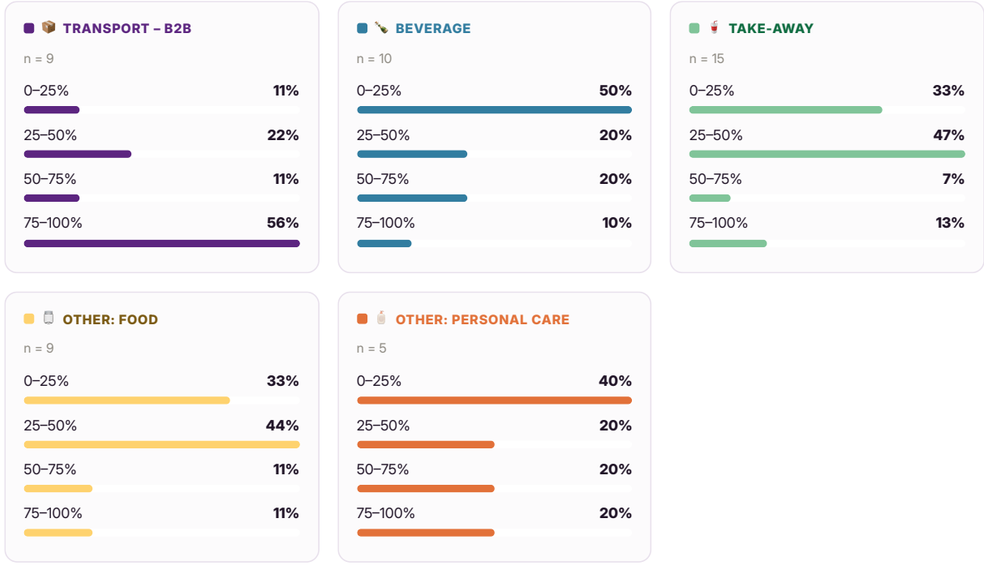
CASE STUDY - CLUBZERØ - UNITED KINGDOM

At the 2023 Wimbledon Championships, in partnership with Barclays, CLUBZERØ states that it deployed 35,000 reusable cups over the two-week tournament, preventing 70,000 pieces of single-use plastic and avoiding 1.05 tonnes of CO_2. Every item is tracked individually, collected daily, washed centrally and redistributed next day, with Compass Group as catering partner.

CASE STUDY - RUNDEN GROUP - GERMANY

Runden Group reports that it has digitalised its packaging flows: large quantities of reusable transport packaging can be scanned in bulk with RFID technology, and customers can match the contents with the packaging. Its foldable crate reduces the space used in transport: 11,800 folded crates fit in one truck load, against 1,320 rigid ones.

FIGURE 17 – REUSE, CLEANING CAPACITY USED



Distribution of companies by cleaning centre utilisation-rate band (0–25% / 25–50% / 50–75% / 75–100% of maximum capacity currently used), by PPWR reuse category. A company can appear in more than one category.
Sample: 32 companies surveyed in 2026

The cleaning operations surveyed continue to run below capacity. **About half (17 of 33) operate at 45% of their maximum or below. In the 2025 edition, 70% of the 39 companies answering operated at 2–45%**[4]. Given the small sample, these numbers should be seen as indicative. Transport is the exception, with 56% of its washing operations running above 75%. That idle time sits on top of substantial installed capacity: reported maximum throughput has a median of 3 million units a year, two-thirds of washers can clean at least 1 million, and the largest industrial poolers reach 200–500

million a year. The constraint is therefore under-used rather than absent infrastructure: existing plants could absorb significant growth before new investment is required. This available capacity will only translate into reuse volumes if demand and coordination develop alongside it. Collaboration, format standardisation and shared logistics are the recognised levers to cut cost and accelerate uptake, but their effect remains limited without stronger consumer demand, still the main barrier cited by respondents, and the reason washing capacity remains under-used. In the 2025 edition, 43% named policy progress and enforcement as the most effective driver, and about half read the then-current EU and national frameworks as neutral or insufficiently supportive[4]. France's Deloitte bulk-and-reuse barometer[16] reaches the same conclusion from across the border: it calls washing the critical link of every reuse loop, finds household washing centres running at just 30% of capacity – headroom for some 85 million more packages a year with no major investment – and argues that pooling and standardising formats is what structurally lowers logistics and washing costs. Both barometers reach the same conclusion: the washing infrastructure exists; what is missing is the demand, the shared standards and the regulatory certainty needed to fill it.

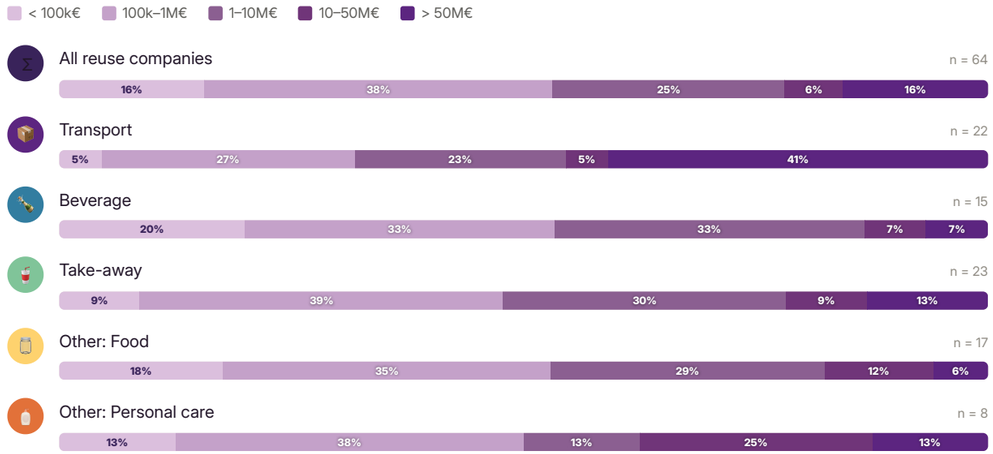
CASE STUDY - ETERNITY SYSTEMS - FRANCE

Following the switch to reuse by the Bordeaux and Mérignac local authorities for school catering at the end of 2024, ETERNITY opened a local washing site. The 2,500 m² site at Blanquefort, near Bordeaux, is run by Re-uz for ETERNITY, a joint venture of Re-uz and ETERNITY Systems. In September 2025 the joint venture announced that from November 2025 it would wash 25,000 containers a day for La Cuisine Bordeaux Mérignac. It received €256,533 of ADEME support.

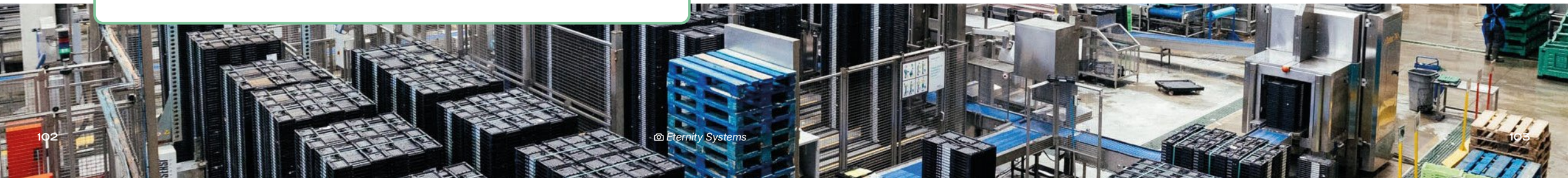
The company's own message: guaranteed volumes are what make it possible to invest in a local washing site, which can then also serve the smaller volumes of other players. That, it argues, is how washing infrastructure will develop – and much of it remains to be built.

FINANCIAL PERFORMANCE

FIGURE 18 – REUSE, ANNUAL REVENUE



Distribution of companies by revenue bracket from reuse activities in 2025, by PPWR reuse category, shown as % of each category's own respondents (a company can appear in more than one category).
Sample: 64 companies surveyed in 2026



Eternity Systems

Across all reuse companies (the summary row at the top of the chart), revenue clusters in the **€100k–€1M€ (38%) and €1–€10M (25%)** bands, consistent with the young, small companies of figure 3. Transport is the exception – bimodal, with many small firms plus a distinct set of large poolers (9 of its 22 respondents report over €50M), the same big-operator pattern seen in its employment profile (figure 6). Against 2025 the sample has shifted markedly larger: micro companies (under €100k) fell from **28% to 16%** while those above €10M rose from **13% to 22%**. Last year's edition cautioned that its turnover picture skewed toward small startups because the big established players (IFCO, CHEP, large bottlers) had not responded[4]; this year more of them did, lifting the whole distribution. The profitability results are consistent with previous editions but rest on a very small base: among the companies able to report an operating margin, **43% (6 of 14) were positive in 2025**, with two more too early-stage to say. That is broadly in line with the previous editions, where roughly half reported being profitable (53% in the 2025 edition, 48% in the 2024 edition). Given the small number of responses, these findings should be interpreted as indicative rather than as a trend. The finding is consistent across editions: despite their youth, a significant share of reuse companies already generate a positive operating margin, and most of the others expect to do so within a few years.



Eternity Systems

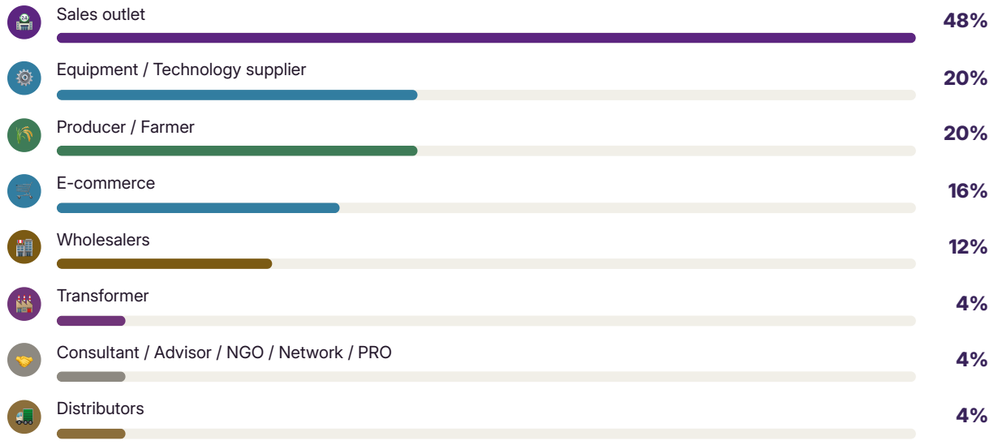
REFILL SYSTEMS

The 26 bulk (packaging-free) operators surveyed across Europe report on their activities, assortment, sourcing, losses, containers, obstacles and revenue

ACTIVITIES AND ASSORTMENT

Of the 25 refill operators describing their activities, 48% tick sales outlets, 20% producer or farmer, 20% equipment or technology supplier and 16% e-commerce. The 18 companies reporting their assortment carry a median of 215 bulk references – distinct products sold loose such as one type of soap, one type of cereal –, more than a quarter carry more than 500, and the largest assortment reaches 900. Bulk represents a median 70% of their product range, and three-quarters of them dedicate at least half their assortment to it. Food dominates the turnover – companies reporting the split draw a median 85% of their bulk revenue from food products – while the remaining share, household and personal care, shows the model extends well beyond dry groceries. This is the same balance found in what European households spend. In Eurostat's 2025 consumer price index weights, food, soft drinks and alcohol take at least 80% of household spending on everyday food and household goods. Household and personal-care products take no more than 20%. These shares are calculated by this report from Eurostat's published weights[36].

FIGURE 19 – REFILL, COMPANIES' ACTIVITIES



Refill activities provided by the bulk operators surveyed, as % of refill respondents (multi-select).
Sample: 25 companies surveyed in 2026



JFA LaverVert

CASE STUDY
JFA LAVERVERT
BELGIUM

Founded in Namur in 2019 around a single product – the Savon Noir de Namur, made from 100% Belgian organic rapeseed oil – LaverVert has grown into a full range of natural cleaning and laundry products, made in its certified-artisan workshop in Maillen. From the start it chose zero-waste distribution: its products are sold loose and in large-format refills through partner bulk groceries across Belgium.

The company now also supplies the Horeca sector, care institutions, holiday accommodation and businesses, and says it wants to develop a deposit system for reusable packaging with its partner Le Fourgon. LaverVert reports that consumers and professionals are ready to adopt more reusable solutions when these are simple, accessible and economically coherent. It adds that logistics, costs and the lack of shared infrastructure still hold them back.

SOURCING, LOSSES, CONTAINERS AND OBSTACLES

Operationally, bulk relies on a short, clean loop. Local sourcing is a structural feature of the model: the median operator sources **half of its bulk references locally** (16 answers). For 12 or the 15 companies reporting a distance, local products travel **less than 150 km** from production to point of sale. Data confirms that product loss due to spillage, hygiene or expiry is minor: **12 of the 13 companies measuring losses report 5% or less per year**, several as little as 0–2%. 8 of the 12 operators answering offer empty containers, 5 with a deposit and 3 without. Of the 7 reporting a container return rate, 5 report between 75% and 95%; the other two report 30% and 5%.

Asked what holds them back, of the 11 answering the obstacles question, 36% name suppliers who do not deliver, or are hard to find, in bulk or reusable packaging. Including those citing a lack of local suppliers, **nearly half (5 of 11) end up identifying an issue with procurement rather than a constraint on sales**. The same share (36%) names constraints around customers' reusable containers – the downstream half of the same gap. Pests or hygiene are cited by 3 of the 11, quality by one, low consumer demand by one, and one reports no obstacle.

This confirms the conclusion of the 2025 Belgian bulk edition: bulk only becomes a genuinely zero-waste chain when reusable business-to-business packaging closes the loop upstream and that downstream, consumers use reusable packaging.

CASE STUDY (ECOURAGE) NORWAY

(Ecourage)'s technology combines NFC-enabled packaging, digital product identities and cloud-based traceability, so that retailers and brands can track refills through the packaging lifecycle, measure reuse performance, support emerging regulatory reporting requirements and improve customer engagement while cutting single-use packaging.

The company cites retail deployments with Carrefour in France and with AEON and ecostore in Japan, and pilot programmes with consumer brands and independent retailers across the United States, alongside collaborations with universities and circular-economy organisations. The company says these projects "demonstrate that reuse can move beyond isolated pilots toward scalable, data-driven systems".



(ecourage)

REVENUE AND TREND

Among the 14 operators reporting it, the median share of revenue generated by bulk is 80%, and 11 draw more than half their turnover from it. **58% (11 of 19) report that the share of bulk in their model is increasing**, and 84% report it stable or growing. The 2025 Belgian edition of this barometer found a weighted average growth of about 7% a year in bulk revenue over 2022–2024 (15 companies). 90% of the 22 companies answering reported a stable or growing bulk share[17].

The effect of giving refill dedicated shelf space in mainstream retail has been tested. The UK's Refill Coalition – Aldi UK, Ocado Retail, supply-chain specialist CHEP and GoUnpackaged – ran 16 months of trials of standardised in-store and online refill. In-store refill at Aldi took a **regular 30% share of sales** against the single-use equivalent, peaking at 56%; 97% of surveyed station users judged the process hygienic and 89% found it easy to use. Its conclusion is consistent with the findings of this section: refill is viable and scalable today, and its development now depends primarily on the decision of retailers and producers to adopt it.

CASE STUDY - ÉPICES & TOUT - BELGIUM

The shop. An organic grocery on the rue des Faubourgs in Arlon, in the south of Belgium. It sells the majority of its range loose or in deposit-return containers. Customers can bring their own containers to refill. The shop describes an assortment of almost 200 spices, teas and organic local products; its website also lists fruit and vegetables, dairy, meat, bakery, hygiene and household products[27].

Épices & Tout considers it important to make bulk buying easier through a deposit, and reports that **many customers who had not been ready to switch to bulk began buying willingly once a deposit system was in place**.

The shop also has a webshop of more than 700 products, with collection in store from two hours after ordering. It runs regular in-store workshops, for example on fermented drinks[27].



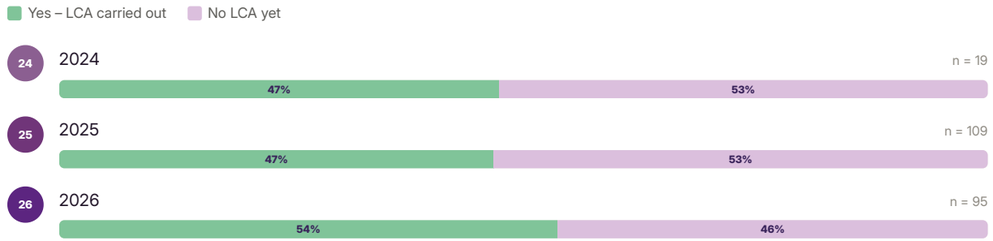
Épices & Tout

STATE OF THE REUSE & REFILL INDUSTRY

Environmental performance, industry maturity, barriers, and policy needs across all surveyed companies

ENVIRONMENTAL PERFORMANCE

FIGURE 20 – LIFE CYCLE ASSESSMENTS – 2024 · 2025 · 2026



Share of companies that have carried out a Life Cycle Assessment (LCA), compared across the 2024, 2025 and 2026 editions. Sample sizes differ strongly between editions (21, 107 and 95 respondents), so read the comparison as directional. More information on these LCAs - including the list of companies and links to every publicly shared study - is available on reusebarometer.com.
Sample: 21 companies (2024) · 107 companies (2025) · 95 companies (2026)

Just over half of this year's respondents (**54%, 51 of 95**) report having carried out a Life Cycle Assessment dedicated to their reuse model. **The share has held broadly steady across the three editions – 48% in 2024, 42% in 2025**. Of these 51 assessments, 13 made their LCA publicly available; they are accessible on the barometer's website alongside the LCAs shared through the past editions. Several report carbon reductions of 60–80% compared with single-use once a sufficient number of rotations is reached.

France shows what published work is worth. ADEME's environmental assessment of deposit-based reuse for glass packaging – fourteen reuse scenarios modelled against single-use, testing return rates, packaging weight, transport distances and recycling rates – is cited across the French reuse sector and has guided how operators there design their systems[18]. Part of its value is in the assumptions shared: the distances beyond which a loop stops paying environmentally, and the number of rotations a container has to complete before it beats a new one. **A published LCA can turn one company's modelling into a design rule the whole industry can build on**.

OPPORTUNITIES, BARRIERS & POLICY NEEDS

While the rest of this report measures firm-level performance, this section looks at the conditions around the firms: how the industry organises itself, and what it says it needs to scale. Last year's edition reported low consumer adoption and regulatory gaps. One of its respondents described collaboration across the value chain as "sporadic instead of systematic"[4].

FIGURE 21 – INDUSTRY COLLABORATION



Forms of collaboration companies take part in, as % of respondents (multi-select).
Sample: 120 companies surveyed in 2026

As it was already the case last year, collaboration is widespread. Last year already, 82% of the 62 companies answering the 2025 edition's open collaboration question (51 of 62, answers pre-filled by the survey) described at least one active collaboration – with washers, logistics providers, eco-organisations and standardisation networks such as France Consigne or Réseau Vrac et Réemploi in France. This year's structured question confirms the level – **83% collaborate in at least one form**, only 17% report little or none yet – and reveals the shape: two-thirds (66%) take part in industry networks and advocacy, 59% run operational partnerships across the value chain and half are in pilot projects or consortiums. The least reported form is collaboration on standardisation and shared infrastructure (31%).

Building that layer deliberately is the aim of the INTERPOOL project, launched in 2026 under Interreg North-West Europe: fourteen organisations from four countries testing the conditions for a cross-border pooling system for reusable glass[19]. This project is a concrete example of what collaboration on standardisation and shared infrastructure can look like. Joining such initiatives is an opportunity for brands and retailers to prepare themselves to the launch of standards.

CASE STUDY - INTERPOOL - NORTH-WEST EUROPE

Launched in 2026 and running to June 2029, it is an Interreg North-West Europe project with a budget of **€6.6 million, €3.97 million of it EU co-funding**. Fourteen organisations across the Netherlands, Belgium, Germany and France take part, led by the Fair Resource Foundation: the EPR organisations Fost Plus, Verpact and Citeo; the industry bodies Genossenschaft Deutscher Brunnen, Mehrwegverband Deutschland, Pro Mehrweg and Réseau Vrac et Réemploi; Enviu, Zero Waste Europe, New ERA and Mission Zero Academy; the University of Antwerp; and the Province of South Holland.

Its subject is reusable glass, and its premise is that the potential of glass reuse is still trapped inside national borders. It maps the systems that already exist in the four countries, identifies the technical, logistical and policy bottlenecks between them, and works toward a shared action plan for reusable glass across Europe[19]. **Pilot testing is expected from late 2027**.

For transparency, Zero Waste Europe and New ERA are strategic partners of this barometer, and Verpact funds it.

CASE STUDY - DOTCH - GERMANY

dotch runs a pooled reusable-glass system for pre-packaged food – standardised containers for oil, vinegar, syrup and condiments, and bespoke solutions for spreads and conserves. The cooking-oil system has been on the market since November 2023, with **more than 400,000 bottles produced and around 150,000 already circulating**. The company reports up to 50% lower CO2 emissions than single-use glass, rising to around 70% once a bottle completes 30 rotations – the same rotation-dependence figure 11 describes. Almost every major German organic wholesaler and retailer now lists the system, and it won the Mehrweginnovationspreis awarded by Deutsche Umwelthilfe and the Stiftung Initiative Mehrweg[28].

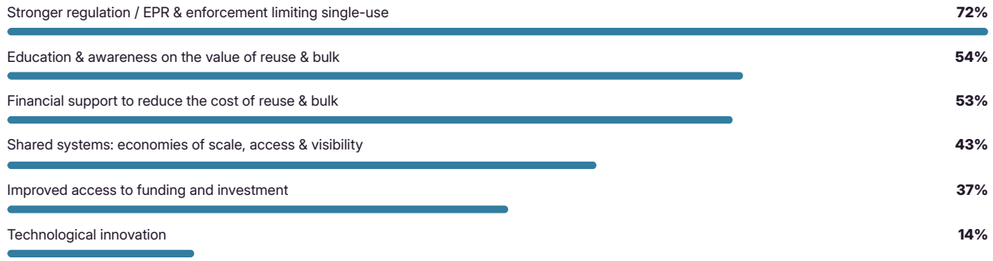
dotch coordinates a manufacturer alliance, Glas kann mehrWeg, of **24 producers and brands** – among them Kühne, Andros, Dittmann, Develey, Bio Planète, MANI and Brökelmann & Co. – publicly pressing for reusable glass to become an industry standard and calling on retailers to join a single shared system. The alliance cites a study by Deutsche Umwelthilfe and Mehrwegverband Deutschland, according to which up to 710,000 tonnes of packaging waste and 409,000 tonnes of CO2 could be saved each year in Germany for pre-packaged food.

The public campaign runs at glaskannmehrweg.de. The alliance states that investing alone in return logistics and cleaning would be out of reach for a producer[29].



Dotch

FIGURE 22 – TYPES OF SUPPORT NEEDED



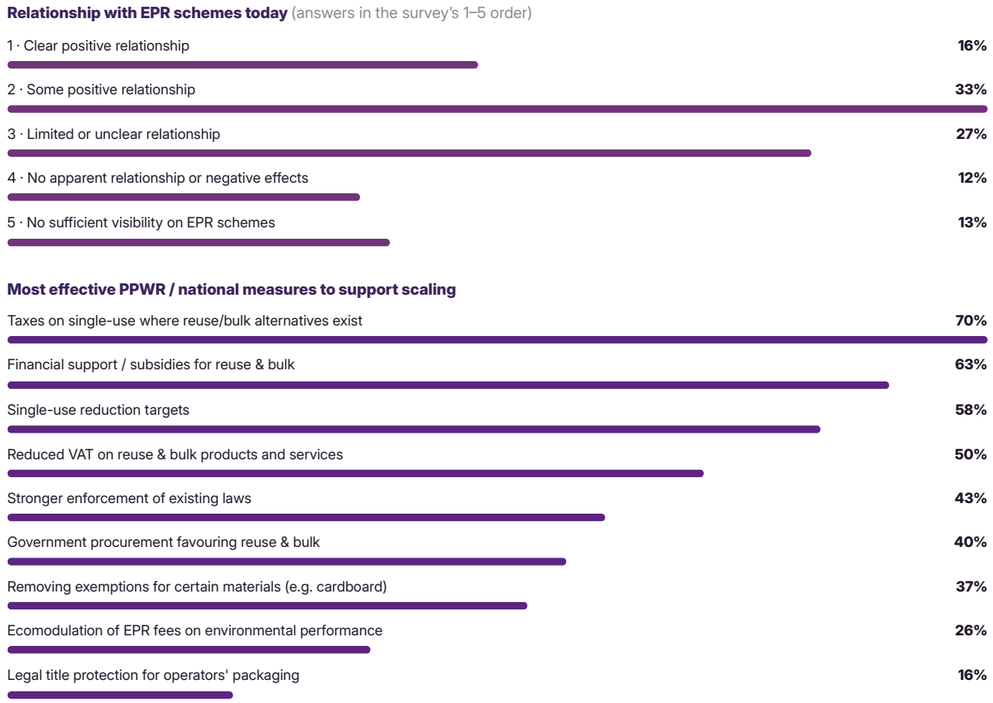
Types of support that would most benefit companies active in reusable packaging or bulk, as % of respondents (multi-select).
Sample: 126 companies surveyed in 2026



Dotch

The hierarchy of needs is unambiguous, and it is the same one as last year, with a stronger margin. 72% put stronger regulation, EPR schemes or enforcement limiting single-use at the top, exactly where the 2025 edition ranked it (stronger regulation and enforcement led its list too, and 43% then called policy progress the strongest driver of optimism). Education and awareness (54%) and financial support to close the cost gap (54%) form the second tier – the same pairing is in line with the price-absorption finding of figure 13: operators want to be supported financially. Shared systems for economies of scale (43%) and access to funding (37%) follow. Technological innovation ranks last at 14%: for the second edition running, companies do not identify technology as the main constraint. Respondents are not asking for new solutions, but for regulatory, awareness and economic conditions that would allow existing ones to scale.

FIGURE 23 – EPR SCHEMES & POLICY MEASURES



Top: how companies describe the relationship between EPR schemes and their reusable packaging or bulk activities (single answer on the survey's 1–5 scale, % of 112 respondents). Bottom: the EU (PPWR) or national measures companies consider would most effectively support scaling (multi-select, % of 120 respondents).
Sample: 113 companies (EPR relationship) · 121 companies (measures), surveyed in 2026

49% of the 113 companies answering **see a clear or somewhat positive relationship** with Extended Producer Responsibility (EPR) organisations, but a full half do not – 27% find it limited or unclear, 11% see no relationship or negative effects, and 13% lack visibility on what EPR schemes even do. That echoes last year, when around half of companies judged the EU and national frameworks neutral or insufficiently supportive. Asked which measures would most effectively support scaling, the 121 companies answering select: taxes on single-use where a reusable or bulk alternative exists (70%), subsidies for reuse and bulk (63%), single-use reduction targets (58%) and reduced VAT on reuse and bulk (51%) lead, ahead of enforcement (43%), green public procurement (39%) and removing material exemptions such as cardboard (37%) – the same exemption last year's edition flagged as limiting the PPWR's reach[4]. Now that the PPWR has entered into application[3], taxes on single-use packaging where a reusable or bulk alternative exists is the measure most often selected (70%).

Asked in their own words what EPR schemes should change, 52 companies answered. They converge on a single demand: that EPR stop functioning mainly as a recycling-financing mechanism and start paying for prevention. Stronger financial signals dominate, raised in some form by roughly eighteen respondents – eco-modulated fees that genuinely reward reuse, reduced or deferred contributions for reusable assets, and EPR revenue earmarked for return, washing and tracking infrastructure. Eight call for EU-wide harmonisation, describing the current landscape as fragmented and applied country by country; one pooler notes it is still not clear whether a closed-loop operator counts as a "producer" at all, leaving its own fee treatment uncertain. Eight more want enforcement and reuse targets that are actually monitored. Two structural points recur: EPR declarations still do not distinguish reusable from single-use packaging, so the operators who prevent waste are not credited for it, and the costs specific to reuse – return logistics, washing, quality control, losses – are not recognised in the fee base. The cardboard exemption resurfaces here too, alongside a request that transport items such as pallets, trays and layer pads be explicitly named as in scope.



Les Retournées

CONCLUSION & RECOMMENDATIONS

What three editions of evidence add up to – and what each actor should do next

This edition closes at a turning point for the industry. Since August 2026, the PPWR has applied across Europe[3]. Its first reuse and refill obligations follow from February 2027, and its reuse targets from 2030. The 130 companies surveyed here describe the industrial base on which those obligations will rest. This base is already operational: B2B closed loops recovering more than 95% of packaging for most operators, some consumer systems reaching comparable levels, washing infrastructure running at around half of its capacity, a refill supply chain whose operators draw a median 80% of their revenue from bulk rather than treating it as a marginal activity and a European transport pool of around a billion assets[7].

What happens next is distributed across four groups of actors:

- **Policymakers** hold the measure respondents call for almost unanimously: the PPWR should be enforced without further exemptions and EPR schemes should recognise prevention alongside recycling – half the respondents see no clear relationship with EPR, and its declarations still do not distinguish reusable from single-use packaging, so the companies that prevent waste are not credited for it.
- **Retailers** and producers no longer face a technology problem: the trials are run, the platforms exist, and the partners are listed on the report's website. What remains is the decision to adopt reuse and, in markets that are still emerging, to build shared systems collaboratively rather than competitively: where reuse does not yet operate at scale there is nothing to compete over, and the 31% rate of collaboration on standardisation is the first gap to close.
- **Investors** should read the under-used washing capacity, the industrial scale now visible in the sample and the price gap absorbed by operators as one signal. The sector is currently financing its own transition. While regulation moves to normalise demand, infrastructure positions taken before the binding targets apply will secure the washing lines, pools and platforms everyone else will require thereafter.
- **Consumers** respond where the system is designed around them: refill reached 30% of sales in a supermarket trial[2] and 86% of packaging was returned in a pilot with no deposit. Respondents nonetheless continue to rank consumer education and awareness among the two most needed forms of support.



New Loop

Across three editions, the barometer has moved from mapping to measurement. The 2024 edition mapped an emerging industry[1]; the 2025 edition assessed its maturity[4]; and the 2026 edition documents its industrial base for the first time. This reflects a change in the composition of the sample rather than a change in the industry: with several large poolers now among the respondents, the barometer captures a scale that was already present – larger companies, publicly documented impact, and fleets counted in the hundreds of millions of units. The 41 operators able to size their fleets report just over half a billion packaging units in circulation between them – a first marker rather than a market estimate, since it mixes B2B and consumer packaging and definitions still vary, but a baseline for future editions. The next edition will be the first surveyed entirely under the applicable regulation, with the 2028 and 2030 obligations in sight. The baseline is now established and future editions will measure against it.

A NOTE ON CONFIDENCE (AND AN INVITATION)

The figures in this report are self-reported by the companies surveyed and pass three checks before publication: automated consistency tests against previous editions and peers, comparison with independent external benchmarks (national EPR data, trade statistics, published trials – see the Bibliography), and this note. Readers who identify an inconsistency – whether as operator, schemes or researchers – are invited to report it to hello@reusebarometer.com. Confirmed corrections are reflected in the next update, so that external scrutiny forms part of the method.

APPENDIX

Definitions, list of indicators, and bibliography

DEFINITIONS

PACKAGING-LINKED DEFINITIONS - *Packaging, plastic, return rate, reuse*

PACKAGING (PPWR)

An item, irrespective of the materials from which it is made, intended to be used by an economic operator for the containment, protection, handling, delivery or presentation of products to another economic operator or to an end user. This includes items designed to be filled at the point of sale to dispense a product – also referred to as "service packaging" – and single-serve tea, coffee or beverage units used and disposed of together with the product.

PLASTIC (PPWR)

A material consisting of a polymer within the meaning of Article 3, point (5), of Regulation (EC) No 1907/2006, to which additives or other substances may have been added, and which is capable of functioning as a main structural component of packaging – with the exception of natural polymers that have not been chemically modified.

RETURN RATE (ZERO WASTE EUROPE)

Percentage of packaging returned to the starting point at the end of a use cycle. A key indicator with major impact on the economics of reusable packaging, as it determines the number of reusable containers that need to be re-purchased. A return rate above 95% should generally be pursued to make a system economically feasible for a system provider.

REUSABLE PACKAGING (PPWR)

Packaging placed on the market is considered reusable where it has been conceived, designed and placed on the market with the objective of being reused multiple times; can accomplish as many rotations as possible under normally predictable conditions of use; fulfils applicable health, safety and hygiene requirements; can be emptied or unloaded without damage that would prevent further reuse; can be reconditioned per Annex VI, Part B while maintaining its function; allows for affixing labels and safety/traceability information; and fulfils the recyclability requirements of Article 6 so that it can still be recycled at end of life.

REUSE (PPWR)

Any operation by which reusable packaging is used again multiple times for the same purpose for which it was conceived.

REUSE SYSTEM (PPWR)

The organisational, technical or financial arrangements, together with incentives, that allow reuse either in a closed-loop or open-loop system – such as a deposit and return system that ensures packaging is collected for reuse.

ROTATION (EUROPEAN UNION)

The full cycle a reusable packaging item accomplishes, from being placed on the market together with the product it contains, protects, handles, delivers or presents, to the moment it is ready to be reused with another product. Also referred to as a "reuse cycle".

SINGLE-USE PACKAGING (PPWR)

Packaging which is not reusable packaging.

STANDARD (EUR-LEX)

A technical specification, adopted by a recognised standardisation body, for repeated or continuous application, with which compliance is not compulsory: an international standard, a European standard, a harmonised standard (adopted at the Commission's request for Union harmonisation legislation), or a national standard.



CHEP



GoUnpackaged

PACKAGING TYPES - *Bottles, crates, cups, pallets...*

BEVERAGE BOTTLES

Sales (primary) packaging intended to constitute a sales unit for the end-user, including bottles used for containing and selling beverages.

CRATES

Packaging designed to group or transport products, such as rigid boxes or pallet-containers – classified as transport (tertiary) packaging under the PPWR.

CUPS FOR BEVERAGES (REGULATION (EU) 2025/40, RECITAL 11)

Service packaging filled at the point of sale, such as takeaway cups provided with a drink to the consumer, and therefore considered packaging under the Regulation.

E-COMMERCE PACKAGING (REGULATION (EU) 2025/40, ART 2)

Packaging used for the delivery of products sold online or through other distance sales channels to the final user – generally considered as transport packaging.

FOOD CONTAINERS

Primary packaging intended to hold and protect food products, subject to design, recyclability and reuse requirements under the PPWR.

JARS

Sales packaging forming a sales unit for the consumer, typically used for food or cosmetic products – falling under the general definition of primary packaging.

PALLETS (REGULATION (EU) 2025/40, RECITAL 95)

Transport (tertiary) packaging used to facilitate the handling, storage and transport of grouped goods; explicitly mentioned in the PPWR as an example of reusable transport packaging.



Mivas

ACTIVITIES AROUND REUSABLE PACKAGING - *Pooling, brand, cleaning, manufacturing...*

REUSE SYSTEM MANAGEMENT / POOLER

The organisational, operational, technical or financial framework – including any necessary infrastructure and incentives – that facilitates and supports the reuse of packaging, in open-loop or closed-loop systems. **Pooling**[20] is the sharing of use of a group of standard packaging items, unit load devices or handling assets, facilitated by a third party (the pooler) that owns, manages, tracks, recovers and maintains the pool. "Closed pooling" refers to an arrangement whereby an independent lessor acquires, funds and maintains a pool of reusable assets – which remain its property – and rents them to users.

BRAND / PRODUCER / RETAILER

The economic operator that places packaged products on the market and is responsible for the associated packaging, including compliance with Extended Producer Responsibility (EPR) obligations and participation in packaging prevention, reuse and end-of-life systems.

SOFTWARE MANAGEMENT

Digital platforms and IT services enabling tracking, traceability, logistics coordination, and financial settlement of packaging flows across reuse and refill systems.

PACKAGING CLEANING & RECONDITIONING

Reconditioning (PPWR) – any operation listed in Annex VI, Part B necessary to restore the functional state of reusable packaging, including cleaning, inspection, repair and replacement of parts. **Packaging cleaning** refers to the industrial or commercial processes that restore reusable packaging to hygienic and functional standards so it can safely re-enter a reuse cycle.

PACKAGING & LABEL MANUFACTURING

Physical manufacturing of reusable packaging and identification elements (labels, traceability) – including packaging manufacturers as defined under the PPWR, and label manufacturers producing physical or digital identification elements attached to packaging.

MANUFACTURER OF COLLECTION SERVICES & INFRASTRUCTURE

Operators that design, build and/or operate the physical and logistical infrastructure required for the collection, transport, return and aggregation of packaging in reuse systems.

CONSULTANT / ADVISOR / NGO

Technical and strategic support provided to industry and public authorities for the implementation of reuse and refill systems.

TYPES OF REUSABLE PACKAGING SYSTEMS - *Closed loop, open loop, or without an operator*

CLOSED-LOOP SYSTEM

A reuse system in which reusable packaging is circulated by a system operator or a co-operating group of system participants, without the change of the ownership of packaging [EU Regulation 2025/40, Annex VI]. The network is known and defined in advance, return flows are predictable, and loss rates are generally lower – the highest level of control among the three models.

OPEN-LOOP SYSTEM WITH SYSTEM OPERATOR

A reuse system in which reusable packaging circulates among an undefined number of participants, and ownership may change at one or more points in the process [EU Regulation 2025/40, Annex VI]. A central operator (often a pooler) manages reverse logistics – collection, repair, cleaning, redistribution – at scale, without controlling a closed network of participants. This is the typical model for shared pooling systems.

OPEN-LOOP SYSTEM WITHOUT SYSTEM OPERATOR

Also referred to as a "fungible open system", this model has no central operator. It relies on asset standardisation and an active secondary market: independent refurbishers collect, inspect, repair and reintroduce packaging into circulation without any single entity overseeing the whole system.

REFILL, BULK & RECHARGE

This Barometer covers what the PPWR refers to as "reuse" and "refill" (Articles 28–29). The PPWR defines refill as an operation by which a container fulfilling the packaging function – either owned by the end user or purchased at the point of sale – is filled by the end user or the final distributor with products purchased from that distributor, and a refill station as a place where a final distributor offers products that can be purchased through refill.

The report uses "refill" in this regulatory sense and treats "bulk" as its equivalent in market usage, the two terms being used interchangeably. Zero Waste Europe notes that it generally refers to "goods sold without being pre-packaged (except for traditional 'over the counter' businesses: delicatessen, caterer, bakery, fishmonger's, etc.) via self-service" and "is not subject to any legal definition in European legislation"[30]. France has provided a national legal definition in Law No. 2020-105 of 10 February 2020, under which bulk sales may be offered in self-service or assisted formats – including via distance selling – with consumers responsible for the cleanliness and suitability of the reusable container used[21].

In common usage, "refill" may also be confused with recharge formats – intermediate packaging designed to refill a primary container (e.g. cosmetics recharge packs). These fall outside the PPWR definition, which refers specifically to the direct filling of a container owned or purchased by the end user, and they are not covered by this Barometer.

LIST OF INDICATORS

The following indicators are monitored across the survey's six indicator groups listed below. The full question-by-question inventory, including Airtable field mappings, is maintained separately in the survey specification.

1. COMPANY CHARACTERISATION & PACKAGING USED

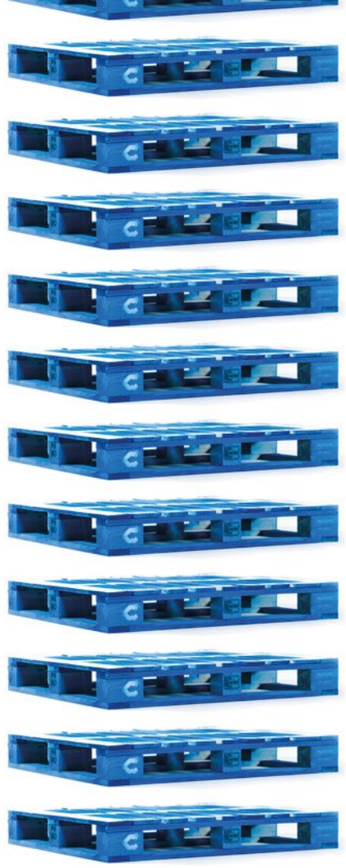
- Headquarters and countries of activity
- Year of creation and year the company became active in reuse / bulk
- Sector of activity (free text, coded; e.g. Retail/FMCG, Hospitality, E-commerce, Transport & Logistics) and PPWR category
- Type of activity provided around reusable packaging (Design, Producer/Retailer, Manufacturer, Cleaning/Reconditioning, Traceability, etc.)
- Social Readiness Level (SRL), from Concept to In Market
- Number of full-time equivalent (FTE) employees working on reusable packaging, and planned recruitments over the next two years
- Type of reusable packaging used (beverage bottles, crates, cups, etc.) and main materials (glass, plastic, metal, cardboard, etc.)
- Price of reusable packaging and of the product sold in it, compared to single-use equivalents
- Packaging compliance with a standardisation design
- Technologies used to track reusable packaging (QR codes, RFID, barcodes, manual systems, etc.)

2. ECONOMIC & FINANCIAL INDICATORS

- Annual turnover in 2025, 2024 and 2023, and % of revenue linked to reusable packaging
- Operational profitability of the company's core reusable packaging activity
- Expected timeline to reach profitability from reuse activities, where applicable
- Funding stage (Pre-seed, Seed, Series A/B/C+, Other) and type of investment received
- Capital expenditure (CAPEX) invested at the launch of reuse operations
- Yearly total capital raised or planned to raise, 2020–2029

3. INDUSTRY MATURITY & READINESS

- Average reported return rate for reusable packaging, by format/material
- Amount of deposit or penalty applied per packaging type (for B2C applications)
- Usage of cleaning / reconditioning centres compared to maximum capacity
- Average number of cycles per packaging format and material
- Perceived maturity of the reusable packaging industry, nationally and per sector of activity
- Main barriers to scaling reusable packaging solutions
- Initiatives or incentives to encourage consumer adoption and consistent return of packaging
- Type of support that would most benefit companies (financial, regulatory, technological, etc.)



CHEP

4. REGULATORY & INSTITUTIONAL CONTEXT

- Perceived level of support from the national regulatory environment for the reusable packaging industry
- Perceived level of support from the EU Packaging and Packaging Waste Regulation (PPWR)
- Relationship with EPR (Extended Producer Responsibility) organisations, and what companies would want those schemes to improve
- PPWR measures considered most effective to support the scaling of reuse and bulk (taxes on single-use, subsidies, reduction targets, VAT, enforcement, procurement, material exemptions, eco-modulation, legal title)

5. OPERATIONAL & SYSTEMIC LEVERS

- Existence of collaboration with other stakeholders (competitors, logistics providers, cleaning services, policymakers) to develop shared reusable packaging infrastructure or standardised solutions
- Expected development of reusable packaging in the sector over the next five years
- Trends or innovations anticipated to shape the future of reusable packaging in the sector
- Existence of a life cycle assessment (LCA) for the reusable or refillable packaging, and whether its findings are publicly available
- Case studies and success stories submitted by companies for inclusion in the report

6. REFILL / BULK (PACKAGING-FREE) INDICATORS

- Activities provided (sales outlet, e-commerce, producer/farmer, wholesaler, distributor, transformer, equipment/technology supplier)
- Number of bulk product references and their share of the overall assortment
- Breakdown of references by food versus non-food products
- Local origin of products and typical production distance
- Loss rate (spillage, expiry) across bulk operations
- Share of revenue generated by bulk sales, and whether that share is growing, stable or declining
- Availability of empty reusable containers, with or without a deposit, and their average return rate at the point of sale
- Whether container cleaning is outsourced or carried out internally
- Main obstacles to implementing bulk (suppliers, price, demand, logistics)

BIBLIOGRAPHY

1. Zero Waste Europe et al., European Reuse Barometer, 2024 edition. reusebarometer.com
2. The Refill Coalition (Aldi UK, Ocado Retail, CHEP, GoUnpackaged), Key Learnings for Industry, April 2025. refillcoalition.com
3. Regulation (EU) 2025/40 of the European Parliament and of the Council of 19 December 2024 on packaging and packaging waste, OJ L, 22.1.2025 (applicable from 12 August 2026). eur-lex.europa.eu
4. InOff Plastic et al., European Reuse Barometer, 2025 edition. reusebarometer.com
5. Eurostat, Packaging waste statistics (Statistics Explained; dataset env_waspac), 2023 data, extracted 10 October 2025.
6. Ellen MacArthur Foundation (with input from the UN Environment Programme), The Global Commitment 2025 Progress Report, 2025 (2024 data), p. 7. ellenmacarthurfoundation.org
7. Reusable Packaging Europe, Market Statistics – Reusable Transport Packaging, August 2024 (2020 data). rpeurope.eu
8. Fost Plus & Valipac, Over 1.5 million tonnes of packaging recycled, press release, 30 June 2026 (2025 data). fostplus.prezly.com
9. Valipac, Activity Report 2024, pp. 8–9. valipac.be
10. RECUP GmbH, company website (about 20,000 partner outlets), consulted 21 September 2026. recup.de
11. EPAL – European Pallet Association, press release, 21 May 2026, and About EPAL. epal-pallets.org
12. LPR – La Palette Rouge, company website, consulted 21 September 2026. lpr.eu
13. Companies' submissions to the 2026 European Reuse Barometer survey (case-study texts and company descriptions), April–July 2026.
14. Kleen Hub ApS, Tap&Reuse general terms, last updated 1 September 2026. kleenhub.com/t-c.html
15. Forbes (Daniela De Lorenzo), This Danish Startup Bets On Bank Card Tapping To Mainstream Reusable Packaging, 9 October 2023.
16. Deloitte, Réseau Vrac et Réemploi & Citeo, Baromètre économique du vrac et du réemploi des emballages – Synthèse stratégique, 2nd edition, May 2026 (2024 data).
17. ConsomAction & InOff Plastic, Baromètre économique de la filière vrac et réemploi belge, 2025 edition, pp. 36–37.
18. ADEME & Observatoire du réemploi et de la réutilisation, Évaluation environnementale de la consigne pour le réemploi des emballages en verre en France (Volets A et B), November 2025. librairie.ademe.fr
19. INTERPOOL, Interreg North-West Europe project, 2026–2029. interpool.nweurope.eu
20. Packaging from Nature, Closed pallet pools fact sheet, December 2018.
21. French Consumer Code, art. L120-1 (created by Law No. 2020-105 of 10 February 2020, amended by Law No. 2021-1104 of 22 August 2021). legifrance.gouv.fr
22. European Commission, DG Environment, Pallet wrapping and straps exempt from 100% reuse requirement under Packaging and Packaging Waste Regulation, news item, 25 February 2026. environment.ec.europa.eu
23. The Ocean Package, home page and English site. theoceanpackage.com
24. AKTus / CCI mag, "Foodprint lance un projet-pilote de consigne alimentaire dans les supermarchés", 28 November 2023.
25. QU4TRE, "Bring Back, l'entreprise qui lave nos bouteilles consignées", 14 August 2025. qu4tre.be
26. Borro, "A smoother matchday at Club Brugge", 17 February 2026. borro.one
27. Épices & Tout, company website, consulted 23 September 2026. epicesettout.be
28. dotch GmbH, company website, consulted 23 September 2026. dotch.de
29. Glas kann mehrWeg, manufacturer alliance website, consulted 23 September 2026. glaskannmehrweg.de
30. Zero Waste Europe (with Eunomia and Réseau Vrac), Packaging Free Shops in Europe – An initial report, June 2020, p. 30. zerowasteeurope.eu
31. Rotom, Terugwinning van verpakkingen in de bouwsector, company article, consulted 22 September 2026. rotom.nl

32. Saint-Gobain UK, How the Pallet LOOP is preventing pallet waste in UK construction, 2022. saint-gobain.co.uk

33. Rotom, Hergebruik van ladingdragers op maat is een duurzame oplossing, white paper, December 2021. rotom.nl

34. Free Pack Net Holding SA, Returnable Protective Packaging and Circular Reverse Logistics for Large Household Appliances, company presentation, January 2026. freepacknet.com

35. ISO/DTR 59031, Circular economy – Performance-based approach – Analysis of case studies, final draft technical report, 2025, section 6.7.

36. Eurostat, HICP – item weights (dataset prc_hicp_inw), European Union – 27 countries (from 2020), 2025 weights, extracted 23 September 2026.

37. RE-ZIP, Our impact, company website. re-zip.com/impact

38. Packaging Strategies, "DW Reusables says its packaging cuts CO2 emissions", 31 March 2021. packagingstrategies.com

39. Le Fourgon, "Le Fourgon dévoile son étude ACV", company blog, 11 October 2023. lefourgon.com



RePack

EUROPEAN REUSE BAROMETER

v2.02



PRS Pooling