

Typical formats of reusable takeaway packaging in Europe

Technical input for the implementation of the Packaging and Packaging Waste Regulation

Brussels, September 2026

For any questions, please contact:

- Fanny Rateau, Senior Programme Manager, Packaging & Waste – ECOS
fanny.rateau@ecostandard.org

Acknowledgement

- Simon S. Rossau, Founder & Consultant – Blue Loop

Contents

Executive summary	2
Categorisation of typical reusable takeaway packaging formats	2
Reuse pathways relevant to takeaway packaging	3
Overview of relevant reusable takeaway products on the European market.....	4
Key technical insights.....	7
References.....	7

*ECOS gratefully acknowledges financial support from **Plastic Solutions Fund** (a sponsored project of Rockefeller Philanthropy Advisors) for our work to prevent and reduce plastic consumption and pollution, through improved reuse and refill.*

Views and opinions expressed belong to the author(s) only and do not necessarily reflect those of our funding partners, who cannot be held responsible for them.

Executive summary

This paper provides a technical overview of typical reusable takeaway packaging formats currently operating on the European market. The analysis is intended to support ongoing European work on reuse systems, reusable packaging and minimum rotation methodologies under the Regulation (EU) 2025/40 on packaging and packaging wasteⁱ (PPWR), with relevance for takeaway packaging operated within systems for reuse.

The regulatory framing is based primarily on Article 27 and Article 33 of the PPWR. Under the PPWR, reusable packaging is not defined solely by durability, but by its ability to circulate within a functioning reuse system involving collection, return, cleaning and redistributionⁱⁱ. This distinction is particularly important in the takeaway sector, where many packaging formats may technically survive multiple uses while still functioning as single-use packaging in practice.

This paper therefore proposes a categorisation based on **operational reuse maturity**¹ rather than technical reusability alone, recognising that effective reuse depends on the existence of functioning systems for collection, return, cleaning and redistribution:

- formats widely used in established reuse systems,
- formats used in niche or emerging reuse systems,
- and formats that are technically reusable or marketed as reusable but predominantly single use in practice.

The most mature reusable takeaway formats currently identified are reusable beverage cups, cup lids operated within the same system, rigid meal containers, bowls, soup containers and food trays made from durable plastic or stainless steel. Reusable pizza boxes and certain speciality formats can become operationally relevant but remain less mature. Fibre-based takeaway packaging, lightweight plastic tubs without return logistics, flexible pouches and composite takeaway packaging should generally not be considered reusable unless repeated circulation within a defined reuse system can be documented.

Categorisation of typical reusable takeaway packaging formats

For the takeaway sector, an important distinction is whether packaging is operated within a defined and functioning reuse system. This reflects the PPWR's **system-based understanding of reuse**, where reusable packaging is defined not only by durability, but by its ability to complete repeated rotations through collection, return, cleaning and redistribution.

This distinction is important because many takeaway packaging formats may technically survive multiple uses while still functioning operationally as single-use packaging in practice. Without a system-based assessment, there is a risk of overestimating reuse performance and conflating durability or recyclability with actual reuse.

¹ It refers to packaging formats that are already used at scale within established and functioning reuse systems, with demonstrated collection, return, washing and redistribution. It is not intended as a fixed PPWR definition or a specific rotation or break-even threshold, which is outside the scope of this paper.

A system-based approach also better reflects operational realities, as achieved rotations depend not only on the packaging itself, but also on return infrastructure, washing and drying logistics, loss rates and consumer return behaviour.

For this reason, the following categorisation is useful for the implementation of the PPWR article on reusable takeaway packaging:

Category	Definition	Use in EU methodology
A	Formats widely used in established reuse systems with demonstrated collection, cleaning and redistribution.	Should be included as core formats.
B	Formats used in niche, pilot, local or sector-specific reuse arrangements.	Can be included where operational evidence exists; should not be generalised without data.
C	Formats that are technically reusable, durable or marketed as reusable but predominantly single-use in practice.	Should not be used for rotation calculations unless a functioning reuse system is documented.

Reuse pathways relevant to takeaway packaging

The operational structure of a reuse system is relevant for assessing reusable takeaway packaging and for developing credible methodologies to assess the environmental impact of these. Achieved rotations, return rates and overall system performance depend not only on the packaging format itself, but also on how packaging is collected, returned, washed and redistributed in practice²ⁱⁱⁱ.

The following **reuse pathways** represent the dominant operating models currently observed in the European takeaway sector:

Reuse pathway	Description	Typical characteristics
Closed-loop system	Packaging circulates within one operator, one venue or a controlled network such as a canteen, campus, event or restaurant chain.	High control, predictable returns, easier quality assurance, often high rotation and return rates.
Operator-managed open-loop system	A reuse operator owns or manages a pooled packaging fleet used by multiple food-service operators and returned across a shared network.	Most relevant model for city-wide cups and containers; requires interoperable return points, logistics, cleaning and digital/deposit infrastructure.
Individual-business reuse system	A single business offers its own packaging and takes it back from customers. The system may be local and manual rather than pooled.	Can function well in local schemes but often lacks standardised data and interoperability.

² Eunomia highlights that the environmental performance of reusable takeaway packaging depends primarily on efficient collection, return, washing and redistribution systems rather than on packaging durability alone.

Overview of relevant reusable takeaway products on the European market

The table below provides an overview of the most relevant reusable takeaway packaging formats currently identified on the European market^{3iv}. The categorisation focuses on **formats that are already operated, or are emerging (2026 context), within organised reuse systems for takeaway food and beverages**.

Packaging Family	Sub-category	Material	Description	Typical use case	Reuse pathway	Category	Relevance
Beverage packaging	Reusable cup	PP, Tritan or stainless steel, glass, other durable, foodsave plastics	Rigid cup for hot and cold drinks, typically 200–600 ml, sometimes with standardised lid compatibility	Cafés, quick-service restaurants, events, campuses, city systems	Closed-loop or operator-managed open-loop	A	Core format. Suitable for minimum rotation work if return, wash and loss data are available
Beverage packaging	Reusable lid	PP, silicone, Tritan or other durable plastics	Reusable lid for cups; may be a separate component with different loss and cleaning profile	Coffee and cold-drink systems	Usually linked to cup system	A/B	Should be treated as a component. Lid loss can be materially different from cup loss
Food packaging	Rectangular meal box	PP, Tritan, stainless steel, other durable, foodsave plastics	Rigid container with separate lid for warm or cold meals; often stackable and designed for industrial dishwashing	Restaurants, canteens, office lunch, meal subscriptions, retail food-to-go	Closed-loop or operator-managed open-loop	A	Core food-container format; rotation assumptions should reflect food contamination and component replacement
Food packaging	Bowl container	PP, Tritan, stainless steel, glass, other durable, foodsave plastics	Round or oval bowl for salads, noodle dishes, soups with inserts or lids, and warm meals	Salads, bowls, Asian food, canteens, restaurants	Closed-loop or open-loop	A/B	Relevant but may require separate treatment due to staining, odour and lid performance
Food packaging	Compartment tray / bento box	PP, Tritan, stainless steel, other durable, foodsave plastics	Rigid tray or box with two or more compartments to keep meal components separate	Canteens, institutional catering, meal services	Mostly closed-loop	B	Relevant in controlled systems; less common in open urban systems
Food packaging	Clamshell / hinged food box	PP or durable plastics	Hinged container for burgers, sandwiches,	Quick-service restaurants and events	Open-loop pilots or closed-loop settings	B	Operationally relevant but hygiene, hinge durability and

³ For concrete examples in cities, see [ReuSe Vanguard Project \(RSVP\)](#) “Blueprint for harmonising the implementation of takeaway food and drinks packaging systems for reuse in Europe”.

			fries and fast-food meals				breakage are key considerations
Food packaging	Soup / liquid container	PP, Tritan, stainless steel, other durable, foodsave plastics	Leak-resistant container for soup, stews or sauces, often with screw or tight-seal lid	Soup, hot liquid meals, sauces	Closed-loop or open-loop	B	Requires separate assessment because seals and lids often drive failure and loss. Furthermore, often retained by consumers instead of returned
Food packaging	Reusable pizza box	PP or rigid durable polymer	Large flat box designed to replace single-use cardboard pizza boxes	Pizza takeaway and delivery	Mostly pilots or limited commercial schemes	B	Emerging format. Important but not yet mature enough for generic rotation assumptions
Food packaging	Reusable sushi / deli tray	PP, Tritan or other clear durable plastics	Shallow lidded tray for sushi, deli foods or cold prepared food	Retail food-to-go, supermarkets, canteens	Mostly closed-loop or controlled return	B	Potentially relevant where controlled collection exists; not broadly established
System logistics	Reusable transport crate for returned items	HDPE or PP	Stackable or nestable crate used to collect, move and redistribute cups and containers within the reuse system	Back-of-house logistics, cleaning centres, redistribution	B2B closed-loop within takeaway reuse system	A	Highly relevant as enabling packaging/logistics equipment; should not be confused with consumer-facing sales packaging
Boundary case	Durable fibre cup or tray without return logistics	Paper/fibre with coating	May be described as reusable or washable, but generally not circulated through an organised reuse system	Takeaway food and drinks	Usually no actual reuse system	C	Should be excluded unless system participation and repeated rotations are documented
Boundary case	Lightweight plastic tub without take-back	PP, PET or other plastics	Durable enough for domestic reuse but sold and managed as ordinary takeaway packaging	Food delivery and takeaway	No organised system	C	Should not count as reusable packaging for methodological purposes
False-reuse / pseudo-reuse	'Reusable' PP cup without return infrastructure	PP	Durable plastic cup marketed or distributed as reusable but lacking collection points, deposit systems or operational cleaning logistics	Events, convenience retail, takeaway beverages	Consumer-retained / no organised system	C	Should not qualify as reusable packaging unless repeated system-based rotations can be demonstrated

False-reuse / pseudo-reuse	Reusable-branded takeaway cup or container sold for consumer retention	PP, Tritan or stainless steel	Container marketed as reusable but effectively functioning as a retail product intended for indefinite consumer ownership	Premium takeaway, food delivery	No structured return pathway	C	Should not be included in rotation methodologies unless commercial recirculation within a defined reuse system is documented
False-reuse / pseudo-reuse	Event cup with weak or non-functional return scheme	PP	Cup nominally linked to a return scheme, but with limited return accessibility or insufficient operational evidence of cleaning and redeployment	Festivals, temporary events	Weak or ineffective reuse system	C/B	Requires demonstrated return and redistribution performance before inclusion in minimum rotation methodologies

For a takeaway packaging format to be included in reuse-rate or minimum rotation methodology, evidence should be available that the format is used in a system that enables repeated commercial reuse. **A packaging item should not be considered operationally reusable merely because it is robust enough to be reused by a consumer at home.**

At minimum, the operator or entity responsible for the reuse system should document the following **system criteria** for takeaway packaging to ensure a system-based approach:

- 1) system operator or clearly allocated responsibility,
- 2) return infrastructure, such as collection points or alternative return routes, and redistribution model,
- 3) incentive or deposit mechanism,
- 4) washing, drying and reconditioning process,
- 5) quality control, including hygiene, and removal of damaged units,
- 6) rules for accepted formats,
- 7) data on units placed on market, returned, washed, redistributed and retired.

For food-contact takeaway packaging, hygiene is not a secondary issue but part of the system definition. Reusable packaging must be safe and hygienic, design and reconditioning must be appropriate to the intended food application⁴. This is particularly important for greasy foods, dairy-based products, soups, sauces and strongly staining foods⁴.

For new reusable takeaway packaging systems, the operator or entity responsible should do an auditable ex-ante assessment validating these minimum requirements will be fulfilled, to be followed up by ex-post validation after a defined operating period.

⁴ These elements are consistent with the reuse-system requirements set out in Annex VI of the PPWR and with European and international standardisation approaches that assess reusable packaging together with the operational reuse system in which it circulates, including [ISO 18603:2013](#) and [EN 13429:2004](#).

Parameter	Why it matters
Cleaning and inspection	Reusable takeaway packaging normally requires industrial cleaning or validated reconditioning before redistribution.
Component matching	Cups, lids, bowls, seals and trays may have different lifetimes and should not always share one rotation assumption.
Contamination profile	Grease, colour, odour, resistance (e.g. to scratches) and food residues affect cleaning intensity, rejection rates and material suitability.
Transport distance	Collection and redistribution logistics are critical in environmental assessments; local closed-loop systems and wide-area open-loop systems can have different impacts.
Actual achieved rotations	Minimum intended rotations are useful, but policy methodology should be grounded in observed rotations where possible.

Key technical insights

Reusable takeaway packaging represents a rapidly developing reuse sector within Europe and is increasingly relevant for implementation of Article 27 and Article 33 of the PPWR. However, the sector is characterised by significant differences in system maturity, operational performance and data availability across packaging formats and reuse pathways.

The analysis shows that assessment of reusable takeaway packaging should be based primarily on **operational reuse within functioning systems** rather than on technical durability alone. Reusable cups and standard food containers currently represent the most mature and scalable formats, while several other formats remain niche, emerging or predominantly single use in practice.

Future European methodology development related to reusable takeaway packaging and minimum rotation numbers should therefore prioritise system-based assessment, operational data and format-specific considerations to ensure credible and comparable reuse calculations.

References

ⁱ Regulation (EU) 2025/40 of the European Parliament and of the Council of 19 December 2024 on packaging and packaging waste, in particular articles 3, 11, 26, 27, 29, 33 and Annex VI. <https://eur-lex.europa.eu/eli/reg/2025/40/oj/eng>

ⁱⁱ European Commission. Packaging and Packaging Waste Regulation, policy overview. https://environment.ec.europa.eu/topics/waste-and-recycling/packaging-waste/packaging-packaging-waste-regulation_en

ⁱⁱⁱ Eunomia. Assessing Climate Impact: Reusable Systems vs. Single-use Takeaway Packaging (2023). <https://zerowasteeurope.eu/wp-content/uploads/2023/09/Assessing-the-Climate-Impact-Reusable-systems-vs.-Single-Use-Takeaway-Packaging-v2.1-Exec-Summa-1.pdf>

^{iv} RSVP. Blueprint for harmonising the implementation of takeaway food and drinks packaging systems for reuse in Europe (2025). <https://zerowasteeurope.eu/library/rsvp-blueprint-for-harmonising-the-implementation-of-takeaway-food-and-drinks-packaging-systems-for-reuse-in-europe-2/>

^v RSVP. Annex III Safety guidelines: Supporting the implementation of reuse systems for food and beverage packaging for take-away (2026). https://zerowasteeurope.eu/wp-content/uploads/2025/05/ZWE_ReuSe_Blueprint_Annex_III_Safety_Guidelines_EN.pdf