RSVP

ReuSe Vanguard Project

Blueprint for harmonising the implementation of takeaway food and drinks packaging systems for reuse in Europe

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About the blueprint

This blueprint has been produced within the framework of the ReuSe Vanguard Project (RSVP), which includes stakeholders from 5 European countries: Belgium, The Netherlands, Germany, Spain and France.

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Authoring organisations / Project partners

Zero Waste Europe (ZWE) is the European network of communities, local leaders, experts, and change agents working towards the prevention and elimination of waste in our society. We 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. www.zerowasteeurope.eu

Founded in 2004, **Enviu** believes in an economy that serves people and the planet; and in the power of impact-driven entrepreneurship to get us there. Together with partners, Enviu builds companies that address social and environmental issues and drive failing markets toward a new normal. Enviu builds world-changing companies and brings society closer to an economy that sustainably utilises the valuable and limited resources that our planet endows. www.enviu.org

Environmental Action Germany (DUH) has been committed to preserving the natural foundations of life for more than 40 years. In doing so, it brings together environmental and consumer protection like no other organisation in Germany. In the area of circular economy, DUH has been campaigning for waste prevention,

responsible consumption and sustainable business models. www.duh.de

Recycling Netwerk Benelux (RNB) is an environmental NGO with the objective to reduce resource use in our society and prevent (plastic) waste, by pushing for ambitious legislation and corporate responsibility.
To achieve this, RNB formulates policy recommendations, develops campaigns and projects to stimulate reuse, deposit return systems and improve recycling. RNB is based in the Netherlands but also active in Belgium. www.recyclingnetwerk.org

Réseau Vrac & Réemploi is the only professional organisation dedicated to the democratisation of bulk in France in the world. They work towards structuring and accelerating the development of this new market to provide access to sustainable and responsible consumption. Réseau Vrac & Réemploi brings together and supports more than 1.200 professionals in the sector, distributors, producers, suppliers and project leaders in France and around the world.
www.reseauvracetreemploi.org

Rezero – Waste Prevention and Responsible Consumption Foundation is a Catalan non-profit and independent organisation. We want to change the current production and consumption model towards a Zero Waste Strategy, by networking with social, political and economic agents. We promote responsible consumption and waste prevention actions through the development of transformative strategic campaigns, plans and policies and research studies at local, regional and European level.
www.rezero.cat

The context

Packaging waste has been growing in Europe over the last decades and, despite huge legislative and financial efforts, recycling, as necessary as it is, has proven vastly insufficient to address the problem. In times of energy and resource scarcity, efficient prevention and reuse measures are the only options that preserve the value of materials and reduce waste and costs for public authorities whilst spurring innovation and entrepreneurship.

Take-away food and drink is one of the sectors where packaging waste has increased the most, making it both a pressing problem to solve and an opportunity to cease for many stakeholders. The development of highly promising local solutions in many places across Europe positions this sector as having one of the biggest potential environmental and economic impacts when shifting from disposable to reusable.[1]

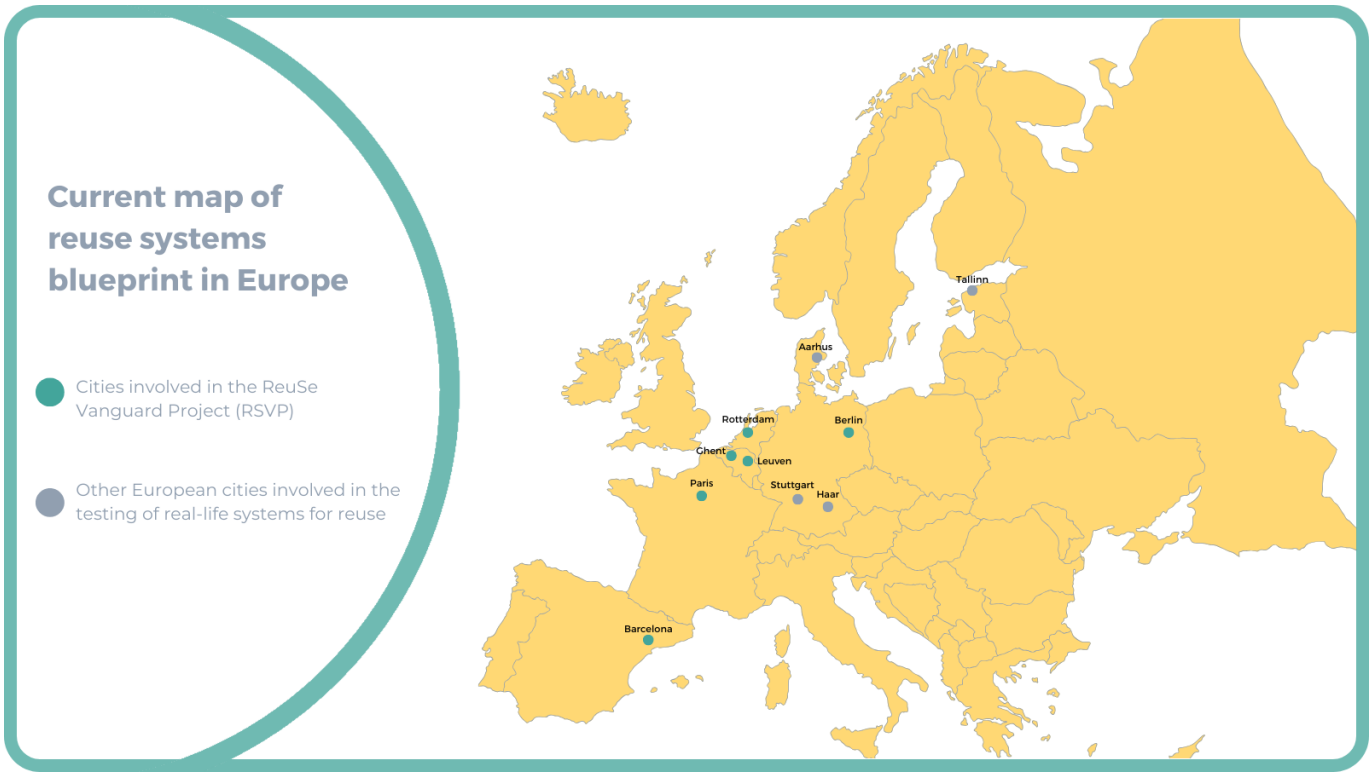
The process

After 3 years of work on the ground with public authorities, businesses, investors and civil society groups, Zero Waste Europe (ZWE), in cooperation with the Deutsche Umwelthilfe (DUH), Enviu, Recycling Netwerk Benelux (RNB), Réseau Vrac et Réemploi (RVR) and Rezero, launches the validation process of the blueprint for implementation of systems for reuse in the takeaway food and packaging sector in Europe.

To a large extent, this draft blueprint results from the enhanced collaborative work that has taken place under the umbrella of the pan-European ReuSe Vanguard Project (RSVP), which includes the main learnings from the co-designing phase of city scale-up projects with local reuse ecosystems in five countries. This is, thus, a work in progress.

Until the end of 2024, Zero Waste Europe will lead consultations with stakeholders and interested parties about the content of this blueprint; and coordinate its testing with the implementation of real-life systems for reuse in the six RSVP cities (Barcelona, Berlin, Ghent, Leuven, Paris, Rotterdam) and other cities such as Aarhus, Haar (Munich), Stuttgart, or Tallinn.

[1] 'Making Europe Transition to Reusable Packaging', Zero Waste Europe, May 2022.



The aim is to finalise the work by the end of 2024 to serve as a blueprint for the implementation of systems for reuse across all European cities.

The goal

This blueprint aims to support and harmonise the creation of a well-performing and resilient **reuse infrastructure development model** in urban areas across Europe; and its scaling up in the next few years, starting with the key sector of reusable take-away food and drinks packaging. This sector has experienced an unprecedented rate of dynamism and innovation over the last few years and can be instrumental in setting up urban infrastructure which could later be used by other product and packaging categories.

The blueprint does not aim to make all systems for reuse the same, but rather define the framework it should follow to allow for:

- Simplicity and best performance;
- Scalability and replicability; and
- User-friendliness.

As such, the role of the blueprint is to set the foundations for city authorities, legislators at different levels, reuse operators, system users (i.e. Ho.Re.Ca actors) and consumers to create or engage with systems for reuse that follow the same:

- Definitions;
- Essential criteria; and
- Minimum performance indicators.

Based on these well-established foundations, we believe that reliable systems for reuse, proven to deliver impact, can be set up in any European municipality in the easiest and fastest way possible while still allowing for local peculiarities ('glocalisation' approach). To be fully enforceable and drive change at the needed scale, this blueprint will be complemented by an implementation guide for cities, building on the key learnings from the coordinated implementation work in the six RSVP cities and beyond (with publication expected in the third quarter of 2024).

1. DEFINITION

According to the definitions laid out in the *European Packaging and Packaging Waste Regulation* (still under negotiation at the time of publication), there are generally two types of processes related to reusable packaging:

- One based on refilling consumer-owned containers; and
- Another one in which the reusable packaging is embedded in a reuse system of collection, washing, filling, and redistribution, where the ownership lies in a third party operator or the producer itself.

Hence, the relevant definitions are:

Refillable packaging ➜ a specific waste prevention measure where a consumer-owned container is designed to be refilled multiple times. While it performs a packaging function, such a container is not considered "packaging" but rather a product, since it belongs to the consumer and falls under its responsibility. It includes operations such as *refill on-the-go* (i.e. fill your container in a restaurant or shop, or refill your water bottle in a public fountain) and *refill at home* (i.e. from concentrates such as SodaStream).

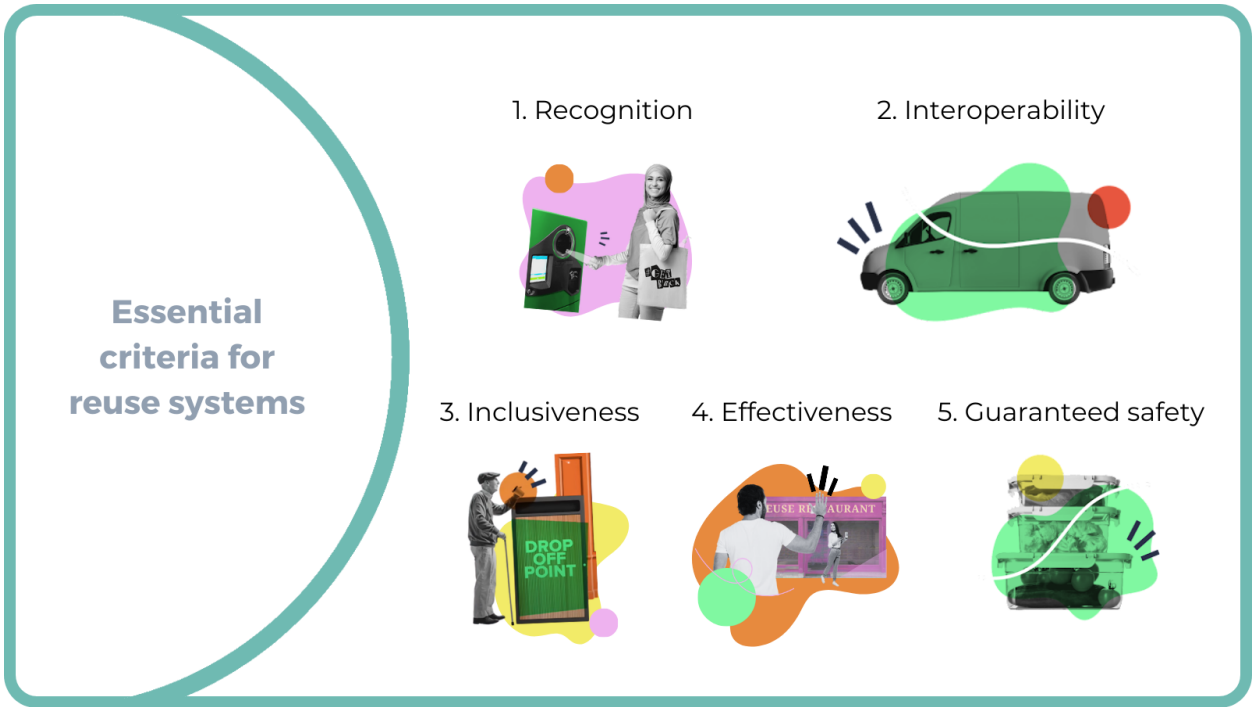
Reusable packaging ➜ packaging which has been conceived, designed, and placed on the market to accomplish, within its lifecycle, as many trips or rotations as possible in a system for reuse; and whose actual return and reuse is made possible by adequate logistics and promoted by suitable incentive systems (see 4.

Effectiveness below for more details on performance and incentives). The ownership of the packaging lies with a third-party actor such as a reuse system operator, a pool system, or the producers themselves.

Systems for reuse ➜ organisational, technical and/or financial arrangements, together with incentives, that enable the reuse of packaging.

Whereas municipalities should embrace both packaging waste prevention (i.e. consumers should be allowed to bring their own packaging to fill it for take-away) and systems for reuse, **the focus of this blueprint is on systems for reuse with reusable packaging** according to the definitions above.

2. ESSENTIAL CRITERIA



Based on the experience rolled out in 6 European cities of 5 European countries, there are 4 fixed criteria and 1 bonus criterion which make the system

operationalisable and well-performing from an environmental and economic point of view:

1. RECOGNITION

All the cities/entities around Europe (and potentially around the world) using the framework and criteria of this blueprint should ensure the systems for reuse are designed in a way that makes them recognisable and distinguishable from those which do not do so.

In this respect, the look and feel of both the system specifics and the packaging itself are of utmost importance.

- The system:
    - Allows for the packaging to be returned to a growing network of partners and, eventually, other public or private (e.g. retailers) collection points (when massification happens).
    - Makes it clear where the packaging can be returned and how the system itself works (i.e. return incentive).
    - Ensures collection points are clearly differentiated from a waste bin or waste habits, not least by giving a distinct (digital or non-digital) notification to the customer that a given (or a set of) packaging has been returned.
- The packaging:
    - Is made out of a robust material, which suggests it can easily be reused.
    - Is evidently made to be recyclable at the end of life (applicable to both container and lid).

Another complementary way to make the system recognisable could be to implement a common logo at the national, EU, or even global level. Such logos would only make a difference if backed with the proper governance, as well as checks and balances. This requires a level of coordination between cities and countries that has proven to be highly challenging for the time being. This is why this is not identified as a *sine qua non* condition for the success of simultaneous implementation in different places in Europe.

2. INTEROPERABILITY

Even if different cities use different packaging, different interfaces, and have different operators, they should all speak the same "language" in terms of how to recognise the system. Moreover, there should be a common, simple, and user-friendly way to organise and report information and to operate such a system.

- **Packaging design**
  A system for reuse can and should, by default, be made interoperable without an advanced level of standardisation in terms of packaging design. Yet, to allow for the development of shared infrastructure between several operators that optimises the collection, transporting, washing, filling, and redistribution of different packaging, participating companies shall work with packaging with, at a minimum, similar dimensions and shapes, e.g. to enable stackability. This will prevent future problems when massification happens.

- **Collection points**
  The possibility for customers to return their packaging to any of the participating point of sales (PoS) (i.e. Ho.Re.Ca actors) in the system should be made available as early as possible. This should also be the case in the event of a system involving multiple system operators. The packaging and return incentive(s) (i.e. deposit or via an app) will then be handled by the PoS staff directly, via an app, or else via a collection point/box or machine.

  Note that, to ensure a swift and fair functioning of the system, a preliminary agreement on details - such as role definition of all the parties involved, storage and collection timing or the handling and compensation modalities for handling deposits - will be necessary.

- **Data points**
  All reuse systems should have a minimum number of data elements and share a common "language", not least to facilitate due diligence and transparent monitoring of performance indicators (see below) and swift logistical handling of the packaging.

  It is suggested to use two-dimensional QR codes to carry data for each collection point in a system. However, one-dimensional barcodes can potentially work, as well as Radio-Frequency Identification (RFID) technologies. For details about what data could be included, check here.

- **Traceability**
  Collection points, containers, and companies operating in the reuse ecosystem should be easily traceable. Some companies still work with containers that do not use any digital system, and the system should still be able to integrate them provided that they can justify the level of performance required by this blueprint. It is likely, however, that such systems will need to incorporate a data carrier moving forward, not least to ensure smooth logistics and reporting. Yet, for the rest of the actors (containers, collection point and operators), the information should be collected.

- **Storing and use of data**
  After determining the data elements that will be required for each container and collection point in a system, all stakeholders would use the same "language" for storing and accessing data. Currently, many reuse companies use their own proprietary language for their QR codes. There are also some standardised languages, such as GS1. For systems to be interoperable, all stakeholders must agree to a common language with low entry barriers and of an open nature. However, it will also be important for reuse companies to have the ability to include encrypted or proprietary data fields that remain private for interacting with their customer (or other sensitive or proprietary data).

3. INCLUSIVENESS

Any operator who plays by the rules can join the system. In the case of a system designed through public procurement, the requirements will not be made specific to a given system operator, but instead set the standards needed for city-wide implementation and will be based on the outcomes of a representative enough stakeholder process or independent impact assessment.

The system is open/designed to incorporate different packaging (e.g. takeaway bowls and cups) and potentially even different product categories (e.g. bottles or jars).

The system should be easy to use by, or be accessible to, any citizen regardless of physical condition or digital literacy. Financial return incentives should also not prevent the participation of any citizen in the system for reuse.

4. EFFECTIVENESS

The blueprint ensures system optimisation over time and creates a system that is convenient and robust, facilitating traceability, and maximising return rates as well as the number of times packaging is reused.

For a system of reuse to perform environmentally and economically well , it needs to have appropriate and measurable performance rates; incentives for businesses to participate in the system ('system users') and for consumers to return the packaging; as well as strong guidance for pooling systems and good governance practices moving forward.

- **Minimum performance indicators**

An effective reuse system evaluates the following minimum performance indicators[2] and meets the following average targets:

- Return rates:
  - Max. 1 year after the start of operation: min. 90%
  - Max. 2 years after start of operation: min. 95%
- Rotation cycles before the end of life:[3]
  - Max. 1 year after the start of operation: min. 10 cycles
  - Max. 2 years after the start: min. 20 cycles
- Retention time (to ensure financial viability):
  - Max. 1 year after the start of operation: 14 days
  - Max. 2 years after the start of operation: 7 days

The phasing of these targets is important as systems for reuse in the take-away sector are, in most cases, still scaling up, especially when developing a model based on shared infrastructure and when including non-digital solutions. While a clear pathway towards efficiency and performance must be envisaged, a period of adaptation will often be necessary to reach the 90+% return rate and cross the break-even point of the number of rotations to be able to clearly outperform an optimised single-use system. This is especially true when the legal context is not supporting reuse yet, or not supporting it enough.

[2] For more information about these indicators, including definitions, see the section 'Description of the parameters used' in the report: "The economics of reuse systems", Searious Business and Zero Waste Europe, 2023

[3] Note that this is a requirement for a minimum average number of rotations for packaging being part of a system for reuse. Depending on the carbon intensity of the material used to make the packaging, a higher number of rotations may be needed to ensure a positive carbon footprint. This is to be determined on a case by case basis.

- **Incentives to drive the buy-in of system users and consumers**

In a world still driven by single-use logistics and habits on the side of both businesses (i.e. cafés, bars, restaurants, ...) and consumers, adopting suitable incentives is a key element to ensure the environmental and economic success of any reuse scheme for primary packaging. This is particularly important when operating in an open environment with multiple points of sale.

On top of the return incentives required by the system operators - such as a traditional deposit or 'library system' - additional incentives must be provided to ensure:

a) The buy-in of a maximum of Ho.Re.Ca actors in making reusables visible and desirable for consumers, and proposed as a default option as early as possible in the process.
b) Consumers choose the reusable option and swiftly understand what is expected of them and with a simple way to make it happen.

Some of the possible additional incentives may not work in other contexts. Thus, a testing phase and regular performance monitoring will be key to help refine the tools as per the needs, and to maximise the overall adoption of the system for reuse, its scaling up, and impact.

Based on the experience from the return of the local stakeholder processes in 5 different European countries, including through local surveys and project design phases, here are several of the best practices identified:

- Where the legal system allows for it, cities could levy a tax on single-use items, which has proved to be a very efficient measure to boost the use of reusable packaging;[4]
- Where the legal system does not allow for such tax, the system users should be supported to work out a joint minimum fee on single-use packaging while ensuring in the meantime that reusable solution is offered to the customers. It should be made clear to the customers what the minimum fee, when collected, will be used for. Where possible, adopting such a fee on single-use packaging should be a requirement for Ho.Re.Ca actors wishing to join the system.
- Cities can also reduce the waste fee for businesses that offer a minimum percentage of their takeaway containers in a reusable format.

[4] The story of the city of Tübingen in Germany already proves that implementing such a tax on single use packaging has a very positive impact in terms of waste prevention and brings reuse systems to thrive. The city has the highest proportion of restaurants, café, bars offering reuse systems in Germany compared to the population. After the introduction of the tax data of reuse service providers show that the use of reusables doubled within one month.

- A fidelity card system can be set up to reward consumers who choose the reusable option. Customers can, for instance, save points that can be traded for a reward at the place where they took them from (or elsewhere depending on agreements).

5. (OR BONUS) - GUARANTEED SAFETY

Providing a service that is safe to use is key to the success of the system.

In terms of hygiene, the system will meet the legal requirements that are already compulsory for the use, collection, washing, and distribution of any type of food contact materials (be it single-use or reusable). However, with current Food Contact Materials legislation being outdated, there is no legal system in place yet to certify that the materials (and the chemicals they contain) used by operators (both single-use and reuse) are really safe.

This is a work in progress, so this criterion is presented as a bonus for the time being.

This blueprint will act as a catalyst to work on ways to ensure that proper independent and verified assistance is provided to manufacturers and system operators as soon as possible, especially by further supporting the development of the science-based UPscorecard tool and possible associated certification system.

Help us scale up and improve the reuse systems landscape in Europe

Reach out to us with your feedback:

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