FERVER
European Federation of Glass Recyclers
Fédération Européenne des Recycleurs de Verre

Rue de la Science 23 B – 1040 Brussels
info@ferver.eu
tel: +32 2 757 91 70
fax: +32 2 240 27 29
www.ferver.eu

Brussels, 18/12/2025

FERVER position paper on the role of DRS in glass packaging collection

Glass is one of the most sustainable packaging materials, as it can be infinitely recycled without any loss of quality or quantity. Across Europe, many countries have built up mature, efficient, and well-performing glass collection systems, especially through bottle banks and curbside collection, that ensure a good selective collection of this mono-material.

The **Packaging and Packaging Waste Regulation (PPWR) (EU) 2025/40**, adopted by the European Parliament and the Council on **19 December 2024** and published on **22 January 2025**, marks a major milestone in the EU's transition toward a circular economy. It replaces **Directive 94/62/EC** and amends both **Regulation (EU) 2019/1020** and **Directive (EU) 2019/904**, introducing a comprehensive and directly applicable legislative framework for packaging and packaging waste across all Member States.

The PPWR does not prescribe specific collection methods for glass packaging but requires Member States to ensure that effective collection systems are in place (Article 48,1). In article 49, it is also mandate that by 1 January 2029, **Member States shall set mandatory collection objectives** and take the necessary measures to ensure that the collection of the materials listed in Article 52 (comprehensive of glass) is consistent with the recycling targets set out in that Article.

While the Regulation mandates the introduction of deposit return systems (DRS) for plastic and metal beverage containers by 1 January 2029, it **does not require DRS for glass**. However, Member States may choose to include glass beverage bottles in their DRS schemes where this supports high-quality collection and recycling.

Article 50(1) makes it mandatory for Member States to establish a DRS only for:

- Single-use plastic bottles
- Single-use metal beverage containers

With a capacity of up to three litres.

Glass beverage bottles **are not subject to the DRS obligation**. However:

FERVER
European Federation of Glass Recyclers
Fédération Européenne des Recycleurs de Verre

Rue de la Science 23 B – 1040 Brussels
info@ferver.eu
tel: +32 2 757 91 70
fax: +32 2 240 27 29
www.ferver.eu

- **Article 50(8):** Member States are encouraged to establish or maintain deposit and return systems specifically for **single-use glass beverage bottles** and beverage cartons.

- **Article 50(8):** These systems should also be available for reusable packaging, including glass, where technically and economically feasible.

The Recycling targets remained unchanged as of the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

- **Article 52(1):** Member States shall take the necessary measures to achieve recycling targets:
(a) by 31 December 2025, a minimum of 65 % by weight of all packaging waste generated – **70% glass**
(c) by 31 December 2030, a minimum of 70 % by weight of all packaging waste generated – **75% glass.**

In this context, FERVER, the European Federation of Glass Recyclers raises concerns about the extension of Deposit Return Systems (DRS) for recycling to glass packaging in countries where glass collection rates are already high and recycling systems are functioning well. While DRS can offer benefits in countries with low collection performance, applying this model to glass in high-performing countries risks undermining the quality, accessibility, and economic viability of recycling operations.

Why introducing DRS for glass can be problematic ?

In countries with established bottle bank systems and curbside collection systems, DRS offers little added value and in fact presents several challenges.

First, there is a risk to **material quality**. Glass returned through reverse vending machines is often crushed, resulting in fragmentation and reduced efficiency in colour separation. This significantly lowers the quality of the cullet and complicates the closed-loop recycling processes relied upon by the glass industry, especially where the systems in place are already implementing separate colour collection at source. When the material is not crushed, however, its quality is higher than that collected via traditional systems, as only glass packaging explicitly identified by the vending machine is collected.
The higher content of fines generated by crushing in DRS systems, combined with the increased difficulty of separating labels from the glass, requires more intensive handling by glass recyclers, which in turn leads to higher energy consumption and increased CO_2 emissions.

Another important aspect to consider is the **design of the crushing systems**, in close cooperation with glass recyclers, to ensure that the machines are technically robust and cannot be manipulated. In particular, attention should be given to preventing the possibility of reusing the same bottle multiple times to claim the deposit, by exploring alternative designs or additional safeguards that effectively eliminate such risks.

Second, DRS introduces **uncertainty about the ownership** of collected glass. In many existing DRS models, private system operators or producers claim ownership of returned materials. In other existing DRS systems, the ownership belongs to the systems itself and the system can keep the deposit after one year. This deprives traditional recyclers of access to high-quality glass feedstock, undermining their role in the circular economy. To safeguard the functioning of the circular economy, it is crucial that glass recyclers maintain fair, transparent, and non-discriminatory access to the material collected through any deposit return system. Ensuring such access prevents market distortions, supports existing recycling infrastructure, and allows recyclers to continue contributing their technical expertise and capacity to achieving EU recycling and reuse objectives.
Third, collection rates alone are not a sufficient justification for introducing DRS in the case of glass. In countries like Germany, the current collection rate for glass via bottle banks is already extremely high, often exceeding EU targets. Replacing these systems with DRS would imply creating unnecessary costs and could potentially confuse consumers, leading to lower participation or improper returns.

There are also significant economic and systemic implications to consider. In many DRS models, the management and use of deposit fees lack transparency. It is often unclear who benefits from unclaimed deposits - whether it is producers, system operators, or government entities - and whether these revenues are reinvested into improving recycling infrastructure or simply absorbed into administrative or commercial operations. Without clear governance, DRS risks becoming a revenue mechanism rather than an environmental tool. Unclaimed money from returned bottles should be used to support the achievement of the recycling targets established in the PPWR.

Given the current market situation, **any introduction of a DRS should be explicitly tied to recycled content or recycling targets** in the legislation. This ensures that the system not only collects containers but also actively drives the use of recycled materials and the achievement of concrete recycling objectives, rather than functioning solely as a mechanism for managing deposits. In other words, linking DRS to targets guarantees that the collected materials are reintegrated into the production cycle, supporting circular economy goals and maximizing environmental benefits.

In some countries where DRS has actually been already implemented, the demand is not exponentially increasing with the collection rate, therefore the recycled content should be rather a local provision to encourage the local demand.
The shift of materials from municipal collection systems to DRS can lead to a fragmentation of responsibilities between local authorities, recyclers, and producers. This not only increases administrative complexity, but may also result in conflicting objectives, where environmental goals are undermined by commercial interests.

DRS systems often prioritize the recovery of beverage containers, which can incentivize packaging choices that fit more easily into the DRS model - even when they are less sustainable overall.
As a consequence, these systems can inadvertently **drive a shift away from refillable glass and toward single-use packaging formats** - especially lightweight plastic bottles and aluminium cans - because they require far less effort from DRS operators, at the expense of more sustainable refillable options. This dynamic ultimately undermines the environmental benefits of refillable systems and accelerates the market's move toward less sustainable packaging options.
This contradicts the waste hierarchy and the EU's commitment to promoting reuse over recycling.
Refillable glass systems, which have operated successfully in many countries for decades, are being displaced by materials with lower environmental performance simply because they better align with the logistics and economics of DRS.
However, the country's geography plays a crucial role. In places like Greece, with many islands, establishing effective collection networks is challenging. Similarly, handling glass in larger countries is difficult due to weight, fragility, and transportation costs. These factors show that in some regions, implementing DRS may be impractical, and alternative waste management approaches should be considered.
Unless designed with care, DRS can unintentionally undermine the very circular systems it seeks to improve, by pushing out reuse models, degrading material quality, and displacing efficient public collection services.

Lastly, DRS - when not carefully integrated - **risks excluding recyclers from the system**. If implemented without consultation or adaptation, these schemes may favour large-scale logistics operators at the expense of established, decentralised recycling chains that have proven their effectiveness over decades.
Moreover, **DRS systems normally are not extended to jars collection. This would still require the maintenance of the traditional collection methods, such as bottle banks or curbside collection.** This has several implications.

1. First, it increases overall collection costs, as a separate infrastructure must be maintained to handle a fraction of the material that the DRS does not capture.

FERVER
European Federation of Glass Recyclers
Fédération Européenne des Recycleurs de Verre

Rue de la Science 23 B – 1040 Brussels
info@ferver.eu
tel: +32 2 757 91 70
fax: +32 2 240 27 29
www.ferver.eu

2. Second, because the volume of material collected through the existing system is reduced, there is no opportunity to scale down or consolidate the number of the traditional bins, meaning fixed costs remain unchanged.
3. Third, the need to operate parallel collection streams can create inefficiencies in logistics, including additional transport, handling, and sorting, which may undermine the overall environmental and economic benefits of the DRS.
4. Finally, the exclusion of jars may also complicate public communication and participation, as citizens must navigate multiple systems for different types of glass packaging.

In light of the above, FERVER would like to propose several recommendations to support the effective implementation of DRS, where such systems are deemed necessary to achieve collection targets.

Key takeaways and recommendations

1. **Bottle bank and curbside collection systems must be protected and prioritized**, particularly in countries with well-functioning, colour-separated systems that deliver high-quality cullet for the glass industry. In cases where the existing system is not sufficiently efficient, it should first be assessed whether targeted improvements - such as increasing the number of bottle banks and their accessibility in line with population needs and density - can enhance performance before considering the introduction of a DRS, which would entail creating an additional system and incurring increased costs.

2. **DRS for single-use glass beverage containers should not be introduced where** it risks degrading system performance, causing material loss, or excluding recyclers.

3. **Where DRS is introduced**:
   a. Glass must be collected without crushing to maintain recyclability.
   b. Existing colour separation practices must be preserved in the system design and aligned with the national recycling infrastructure, ensuring that any DRS does not compromise established sorting processes.
   c. Clear and fair ownership rules must be established to ensure recyclers can easily access the material.
   d. The financial flow of DRS systems should be transparent, with revenues supporting recycling infrastructure and quality improvements.
   e. Policymakers must ensure that DRS does not undermine refillable systems or incentivize shifts to less sustainable packaging formats.

FERVER
European Federation of Glass Recyclers
Fédération Européenne des Recycleurs de Verre

Rue de la Science 23 B – 1040 Brussels
info@ferver.eu
tel: +32 2 757 91 70
fax: +32 2 240 27 29
www.ferver.eu

4. Ultimately, a case-by-case approach is needed. Europe's packaging systems are diverse, and what works in one country may be counterproductive in another. Glass has specific recycling needs that must be reflected in national and EU policy.

Note to editor:

As the European federation of glass recycling companies, FERVER brings together industry leaders from 19 countries and its members are, amongst others, responsible for recycling around 70% of Europe's packaging glass waste into high-quality cullet – a key raw material used to produce new glass products. FERVER members recycle both container glass and flat glass. FERVER therefore plays a vital role in closing the loop for glass and advancing circularity across Europe.