



British Glass

Briefing

Making UK glass reuse a reality

Septembers 2025

Why glass for reuse?

- The glass substrate is strong, does not interact with its contents and is well suited to withstanding return transport, washing and refill processes.
- British glass manufacturers can easily manufacture reusable bottles to serve demand.
- There is a consumer memory of, and fondness for, returnable glass bottle schemes and familiarity with the concept of reusable deposit and return to retail scheme.
- Hospitality glass reuse systems are within recent corporate memory and could be introduced in a shorter term if supply chains cooperate and it is economically viable.
- Once glass multi-trip bottles reach the end of their reusable life, they can be recycled, infinitely, without loss of quality. Recycling glass takes less energy and emits less CO2 than virgin glass.

What are the environmental benefits of reuse over single-use?

- Reuse is always preferable to single use for the circular economy. Resource depletion is relatively unproblematic for the glass industry. The primary input material is post-consumer recycled glass, and the remainder is largely abundant natural raw materials, largely found in the UK. Compared to the resource depletion associated with other packaging materials, a switch from single use plastic (for example) to reusable glass could be seen as even more positive for the circular economy than single use glass to multi-trip glass.
- Lifecycle analyses (LCAs) are often used to compare the carbon intensity of single-use and reuse systems. These tend to include manufacturing emissions, and travel emissions of both the single format and the multiple trip format. Under this analysis, it seems the reusable glass format is always less carbon intensive than any single-use material. However:
 - LCAs do not consider all pollution generated by each format, eg the runoff of micro-plastics from plastic containers during the washing and recycling processes. Environmental impact and carbon intensity of required washing chemicals may be excluded. Neither do they consider the disamenity impact of the littered packaging format.
 - LCAs are based on current information and do not necessarily recognise the significant reduction in emissions that is inevitable in the glass industry, planned across the transport sector and possible across all industry sectors within timescales of reuse implementation.

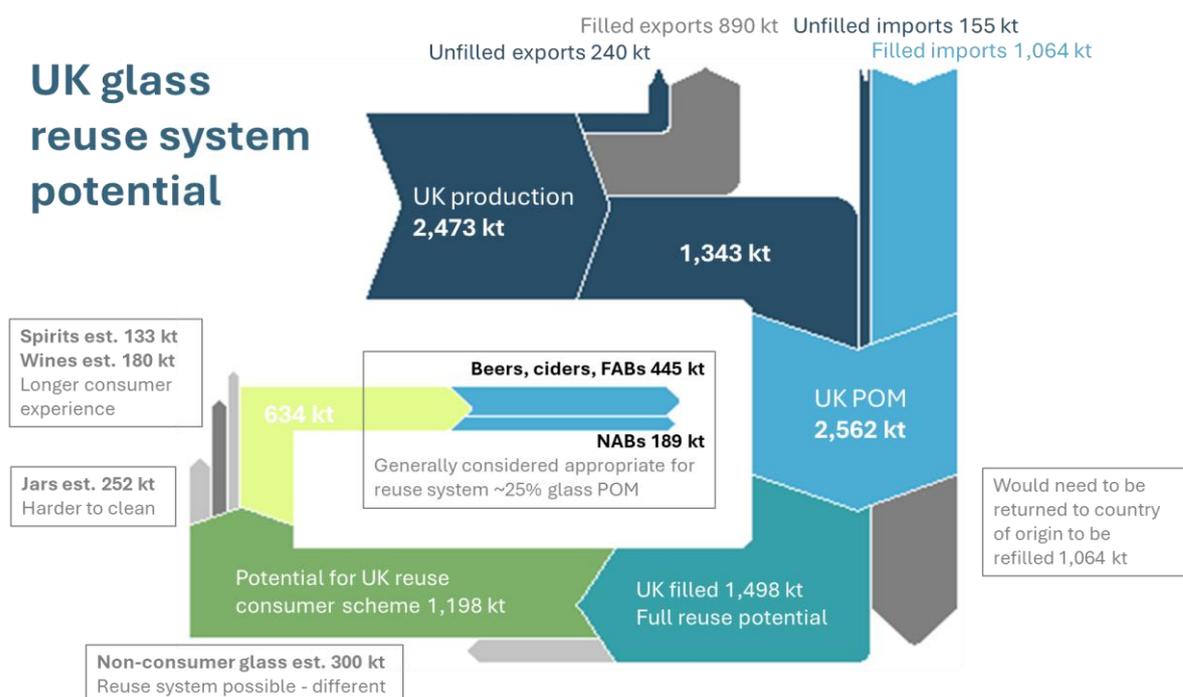
What is the difference between a reusable and a single-use glass bottle?

The overall composition and manufacturing process is the same, but there are key differences which mean that **it is unsuitable to reuse a glass bottle that has been designed for a single trip**¹.

- Multi-trip bottles are stronger than single-use bottles and are designed to withstand around 20 trips, although many achieve more than this. The key difference is that the container must have thicker walls, particularly at contact points. This results in:
 - heavier bottles,
 - visible scuffing - increasing over lifetime,
 - potential changes to filling lines to compensate for different bottle design
- Reusable glass bottles are currently around 20% heavier, but there is ongoing innovation in markets where there is demand for lighter reusable containers.
- Reusable glass bottles tend to be of generic design to minimise the return distance required in the return loop. Bottles that have more specific designs are more likely to have fewer filling points, longer journeys back to fillers and this reduces the environmental benefit of reuse. Branding concerns will need to be carefully considered and overcome.

What is the scope in the UK market for reusable glass packaging?

- In the glass sector, over a third of the single-use containers on the market are imported filled with their product. To make refill viable, filling would need to be moved to the UK.

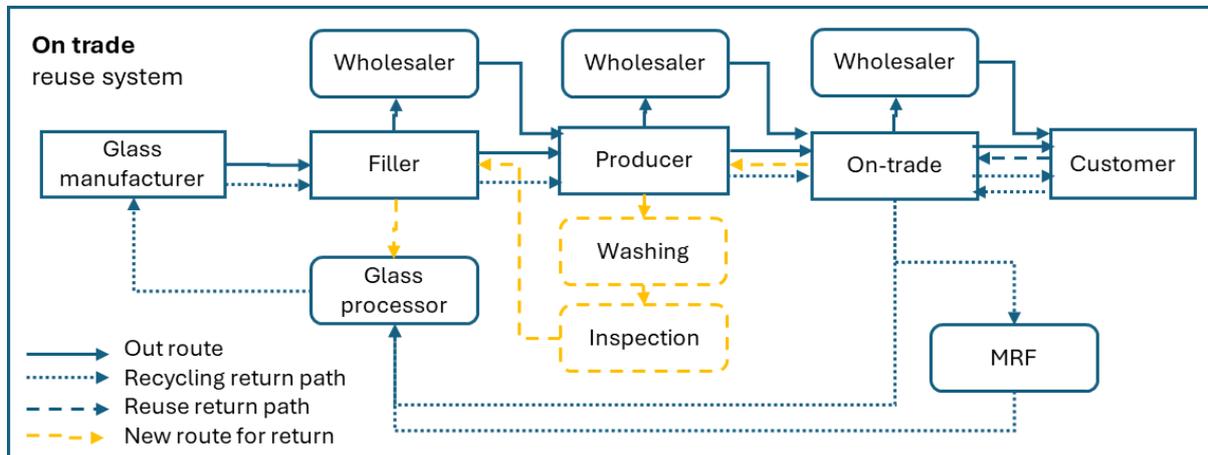


- Suitable products for glass reuse tend to be beverages. Foods and sauces may also be able to be included.
- Suitable products tend to be high volume, low value products such as dairy, water, soft drinks, mixers, beers, ciders and flavoured alcoholic drinks. These will spend relatively less time at the consumers' home or the hospitality establishment before they are returned into the system.
- Focusing on suitable products, only around 25% of glass placed on the UK market is suitable for reuse. Even at 100% uptake, this equates to around 7% of containers on the UK market.

What do reusable systems look like?

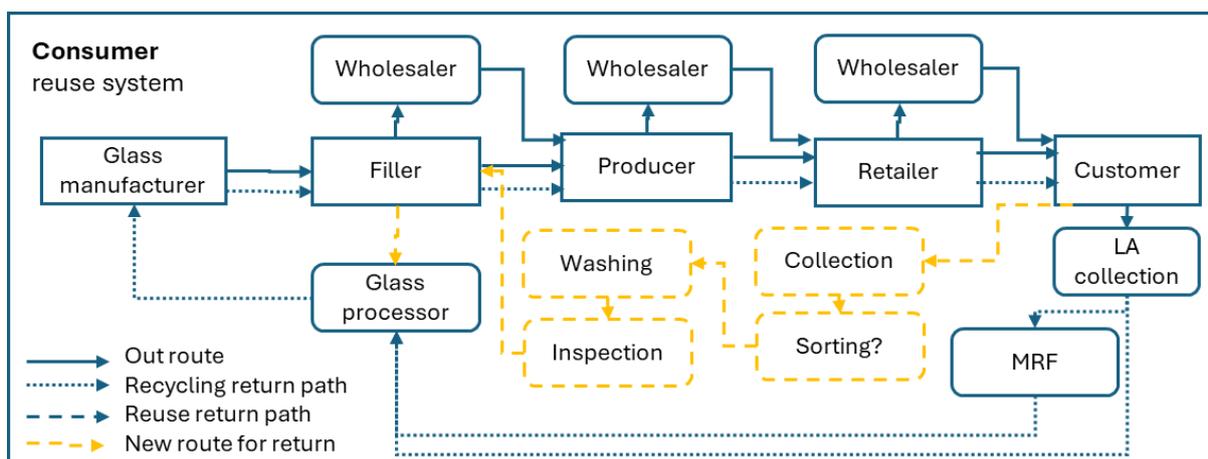
On and off trade reuse systems are different and have varying levels of additional capital and operational costs. Timescales are likely to be quicker for the implementation of on-trade systems if there is positive supply chain collaboration and it is financially viable.

On trade / hospitality



- In theory, on trade reuse systems can make use of back-hauling the product via the route it was distributed. This reduces the number of extra travel miles required.
- On trade establishments are likely to sell a smaller product range which can be more easily sorted for return and refill.
- Staff would need to be retrained to place used containers into crates rather than the current discard method and storage space may be a challenge.

Off trade / consumer



- Off-trade, or consumer, return systems require the consumer to deposit the containers at collection points, where doorstep collection is not provided by the system (doorstep collection is traditionally provided in returnable dairy systems).
- Less of the required system already exists and more additional trips will need to be made. This increases capital and operation costs.
- Consumer behaviour will also be a factor, because recycling routes remain in place and may be less effort or lower cost.



Timescales

We estimate that to develop a reusable consumer glass system fully would take around a decade. This is the timescale expected for a French national reuse scheme, although consumer behaviour already requires French citizens to return their glass containers to bottle banks, and those collection spaces already exist. Timescales for on-trade reuse systems could be quicker, although significant infrastructure investment will still be required.

Government support

The UK Government intended to financially incentivise reusable glass systems by allowing packaging that is being reused to be exempt from EPR fees. Unfortunately, this alone is unlikely to result in an industry-wide shift to reusable glass systems because the differential in EPR fees between producers switching to a lighter, less recyclable material is greater than switching from single-use glass to re-use glass, and there is further financial disincentive to move from any other single-use packaging format to reusable glass because:

- The EPR fee for glass translates as so much higher per glass bottle than any other packaging format.
- The EPR fee would not necessarily decrease a great deal for reusable vs single use glass bottles due to the additional weight of reusable glass bottles and number of bottles that need to be in circulation to service a reuse system (for every bottle on the shelf there must be bottles at various other stages to ensure a continuous flow of saleable items).
- Any reduction in EPR fees generated would be incremental and would not be able to raise the significant up-front capital investment as well as the operational costs required to implement a UK reuse system.

ⁱ <https://www.britglass.org.uk/knowledge-base/resources-and-publications/statement-unsuitability-single-use-containers-reuse>