

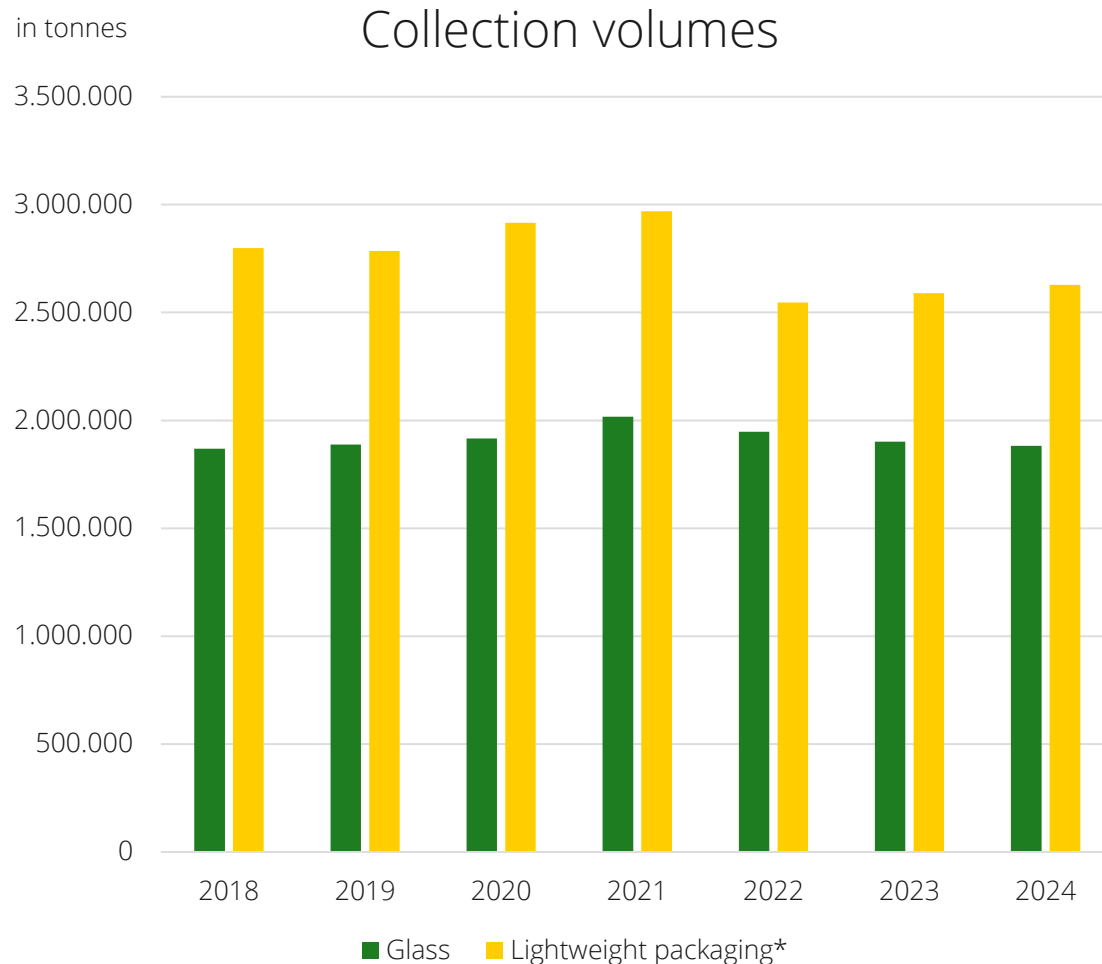
Recycling rates

Recycling rate performance
for packaging waste
collected by dual systems in 2024



2024 packaging volumes ...

... collected by dual systems



Packaging volumes collected by dual systems showed a varied performance across the different material groups throughout 2024:

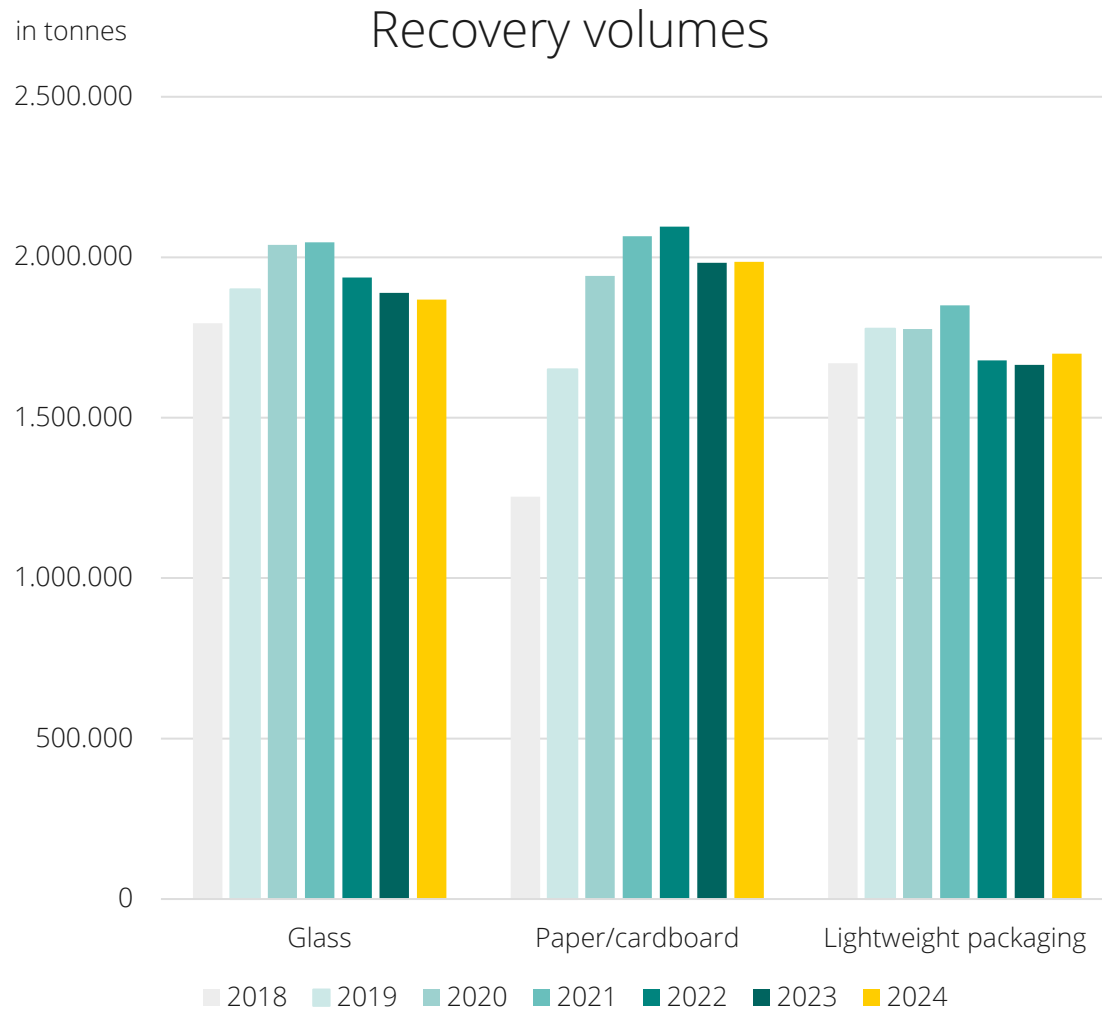
- The volume of lightweight packaging collected from private households and comparable sources of waste generation increased by around 1.5%.*
- Glass collection volumes dropped further in comparison to 2023. According to information from system operators and one study,** this is attributable primarily to the continued decline in container sites.

* Data for paper/cardboard packaging volumes includes communal waste paper collection (blue bin) for all systems. As such, there are no figures exclusively for paper/cardboard packaging. Lightweight packaging collections also include residual waste (sorting errors) and non-packaging of the same material (intelligent sorting errors). In regions where recycling bins are used, only packaging shares are taken into account (retail, grouped and shipment packaging). Source: ZSVR; last updated: December 2025

** Source: Study by the Institut für Abfall, Abwasser und Infrastruktur-Management GmbH, Ahlen; November 2023

2024 recovery volumes ...

... of packaging collected by dual systems



With the exception of glass, recovered packaging volumes have performed well:

- The trend in glass packaging collection and recovery showed further declines, reaching roughly 2019 levels in 2024.
- The paper/cardboard recovery volume remained stable at the prior year's level.
- Compared to 2023, lightweight packaging recovery increased by around 2.1%.
 - Within this material group, roughly 4.1% more plastic packaging was recovered mechanically than in the prior year.
 - At more than 9.3%, the increase in other composite packaging recovered shows a positive picture. Considerable areas for improvement remain, however.

Total recovery rate ...

... for packaging subject to system participation over time

The total recovery rate based on packaging volumes participated with dual systems was around 82% in 2018 (more than 4.7 million tonnes of packaging waste recovered across all material types). By 2023, it climbed to about 90% and remained stable at this high level in 2024. Roughly 5.5 million tonnes of packaging waste across all material types was collected by dual systems for recovery in both 2023 and 2024.

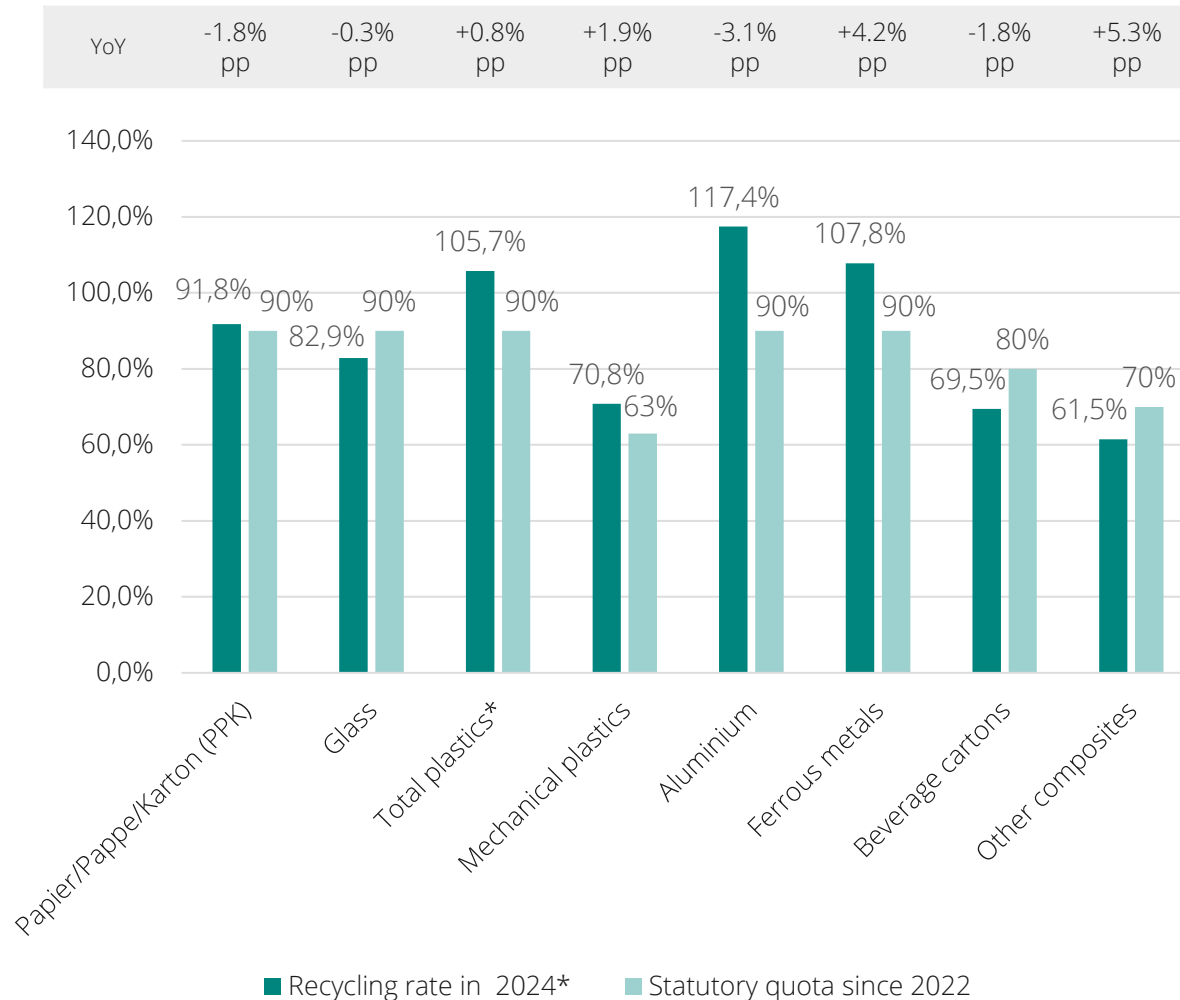


The rates refer exclusively to packaging subject to system participation that has participated with the different systems.



2024 recycling rates

System recycling rates – 2024 reference year



- As in the prior year, five of eight recycling rate targets were met or even exceeded, namely paper/cardboard, plastics*, aluminium and ferrous metals.
- The recycling rates* of over 100% for plastic and metal packaging indicate continued under-participation in these areas. 'Intelligent sorting errors' can also be a contributing factor.
- Once again, the statutory quotas were not met for glass, beverage carton packaging and other composite packaging.
- Although the statutory quotas were not achieved for other composite packaging as a whole, the rate was 5% points higher in 2024 than the year before.
- The collected glass packaging volume was not enough to fulfil the statutory recycling quota.

* Unlike the other rates, the 'total plastics' rate refers to the recovery rate. This includes includes mechanical and energy recovery. 'Mechanical plastics' refers to mechanical recovery.

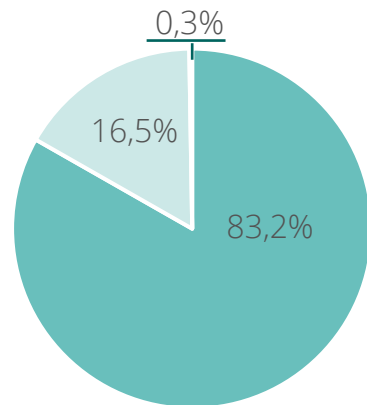
All rates are assessed in line with the cutoff point set out in the VerpackG for the transfer for recycling and/or (mechanical) recovery. Source: ZSVR; last updated: December 2025

2024 waste exports

Shipping packaging waste abroad

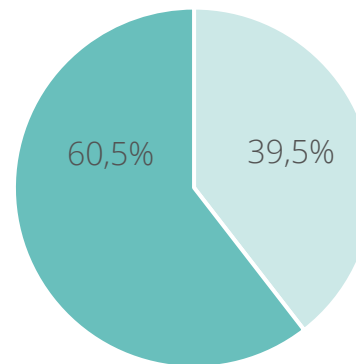
- The share of plastic packaging recovered within Germany has declined slightly year on year. The EU accounts for almost all of recovery outside of Germany, as is the case for composite packaging.
- For other composite packaging, the ratio of roughly 60/40 in 2023 has reversed: in 2024, roughly 60% was recovered outside of Germany. Domestic capacity declined in 2023 due to plant closures. Existing plants located outside of Germany (but within the EU) now also accept composite packaging and saw greater utilisation in 2024.
- Significant volumes of beverage carton packaging were recovered outside of the EU (Türkiye), nearly 19% in total. The share of beverage carton packaging recovered in Germany showed a 29% year-on-year decline in 2024.

Sorted plastic packaging



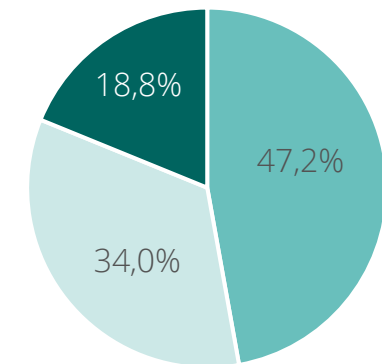
■ Germany ■ EU ■ Non-EU (Switzerland, Turkey)

Sorted composite packaging



■ Germany ■ EU

Sorted beverage carton packaging



■ Germany ■ EU ■ Non-EU (Turkey)