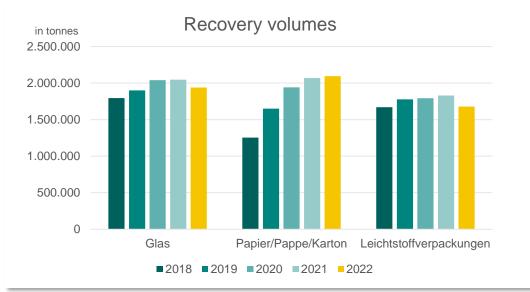
Collection and recovery volumes 2018 – 2022





Packaging accumulating with private final consumers





- Recovery volumes were down across all material groups in 2022, with the exception of paper/paperboard/cardboard
- Main reasons for the decrease in recovery volumes in 2022:
 - extended deposit obligation for certain single-use plastic beverage bottles and beverage cans with a volume of between 0.1 and 3 litres: single-use beverage packaging filled with juice, wine, sparkling wine and sparkling wine cocktails have been subject to deposit since 1 January 2022 and no longer have to undergo system participation.
 - Autumn 2022 brought a recession: as consumer sentiment sank amid worries about inflation, packaging volumes also declined.
 - Year-on-year decline in collection volumes, in line with consumption volumes.
 - With fewer and fewer places for glass collection containers available, the glass volume collected separately was down as well.

Source: ZSVR, last updated: December 2023

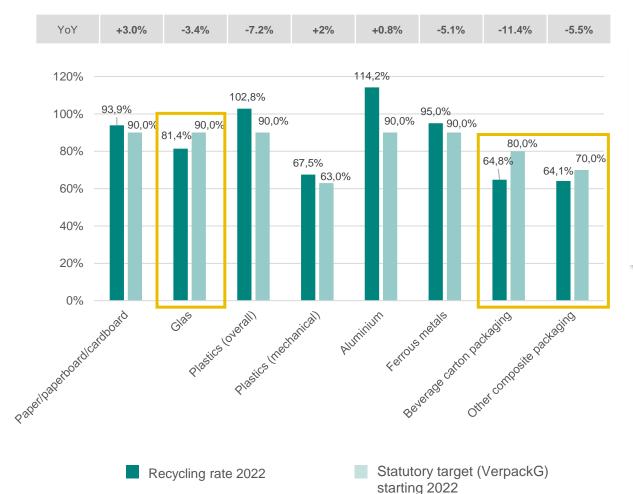
^{*} With paper/paperboard/cardboard packaging and non-packaging collected together, packaging-only numbers are unavailable. Lightweight packaging collections also include residual waste (sorting errors) and other volumes.

Recycling rates 2022*





In the 2022 reference year, the systems achieved the following recycling rates:



- Statutory recovery requirements have significantly increased from 2021 to 2022.
- The systems met the statutory recovery targets for five out of eight material groups.
- At 52.3%, the requirement to transfer more than 50% of the lightweight packaging volumes collected for recovery was exceeded.

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^{*} Ratio of recovery volumes to participation volumes; transfer for recycling, in the case of plastics: transfer for recovery (including energy recovery) or mechanical recovery

Volume flow records and waste exports

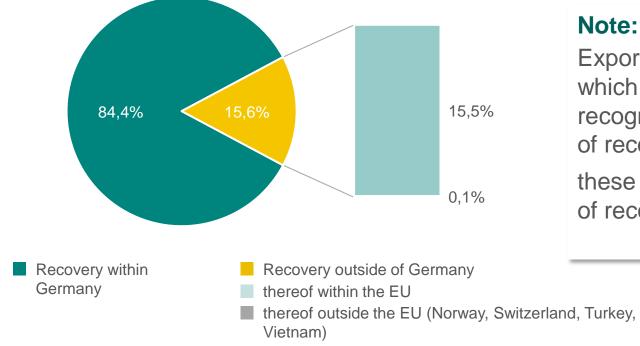




Exports of sorted plastic packaging

At 15.6%, exports of sorted plastic packaging were significantly lower in 2022 than the previous year. The majority of destination countries for these exports were within the EU. Export to non-EU countries were marginal at 0.1%.

Overview of all sorted plastic packaging for 2022 (incl. mixed plastics):



Exports include around 1,200 tonnes (almost all of which were exported to EU countries) that were not recognised by the ZSVR due to a lack of evidence of recovery;

these volumes were not included in the calculation of recovery rates.

3

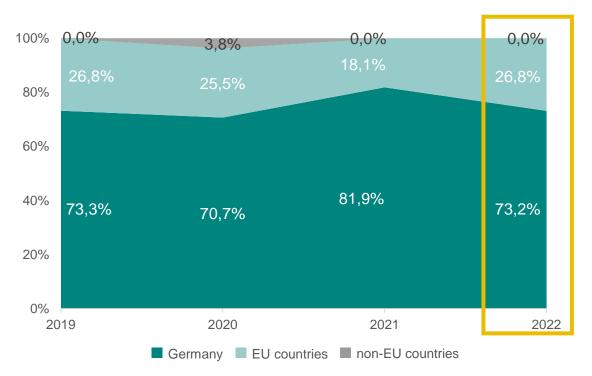
Volume flow records and waste exports





Exports of sorted composite packaging

Exports of other composites made of paper/paperboard/cardboard (excluding beverage carton packaging) increased. This increase seems to have been triggered by the closure of a paper mill in Germany that had recovered relatively high volumes in past years.



Note:

Germany: The figure includes around 3,355 tonnes in composite packaging for which evidence of recovery was not recognised by the ZSVR.

These volumes were not included in the calculation of recovery rates.

2019: The volumes delivered to Bulgaria were cut by almost 2,500 tonnes due to incorrect information in a facility certificate.

2021: Around 1,250 tonnes of other composites were not recognised by the ZSVR due to a lack of evidence of recovery.

4

^{2020:} The ZSVR did not recognise roughly 110 tonnes of composite material exported to India for recovery due to a lack of evidence of recovery.

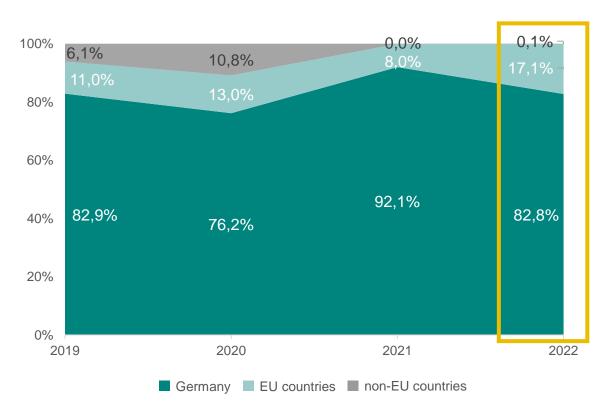
Volume flow records and waste exports





Exports of sorted beverage carton packaging

The lion's share of beverage carton packaging was recovered in Germany, but exports increased.



Note:

Germany: The figure includes around 194 tonnes in beverage carton packaging for which evidence of recovery was not recognised by the ZSVR.

These volumes were not included in the calculation of recovery rates.

2021: Around 840 tonnes of beverage carton packaging were not recognised by the ZSVR due to a lack of evidence of recovery.