

# Impact of the mandatory reuse targets for transport packaging on the German corrugated cardboard market

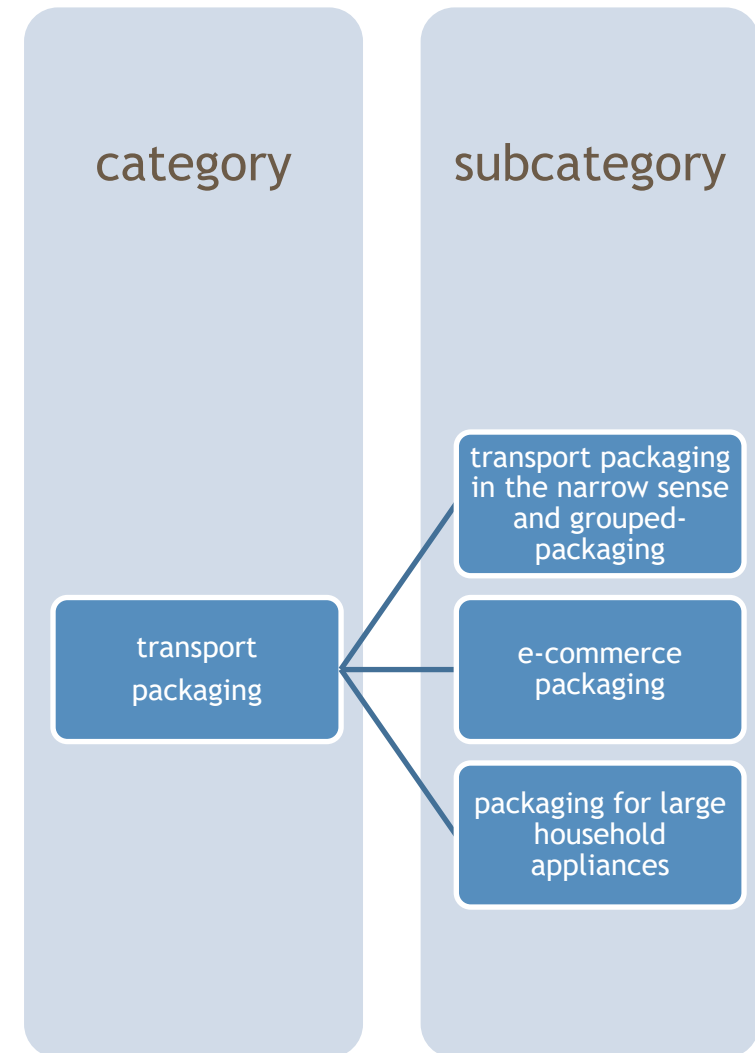
Brief Summary - Scenario "Wording of the PPWR draft"

on behalf of:

Association of German Corrugated Board Industry  
- Verband der Wellpappen-Industrie e.V. (VDW)

1. The proposal for the EU Packaging and Packaging Waste Regulation (PPWR) establishes **mandatory reuse targets for transport packaging**. Germany is far away from those targets.
2. In 2021, **4.3 million tons of corrugated cardboard transport packaging** within the meaning of PPWR was consumed in Germany.
3. 75 % is transport packaging in the narrow sense and grouped packaging (3.2 million tons).
4. If the current wording of the PPWR is implemented (scenario), the consumption volume of corrugated packaging in Germany in 2030 will be reduced by 139 kt to 4,163 kt.
5. Instead, 114 kt waste relevant reusable plastic packaging will be used annually.
6. In the first year of the reuse system, 285 kt of reusable packaging must be purchased. The purchase exceeds the reduction in corrugated cardboard by 146 kt.
7. The switch to reusable transport packaging leads to various changes along the value chain, e.g. more storage space is required.
8. In the scenario, **additional 0.2 billion truck kilometers** will be needed due to the use of reusable packaging.
9. Investments are necessary in particular in the logistics centres and the cleaning and processing plants. These investments are offset by divestments at the corrugated board plants and recycling facilities.
10. The variety of transport packaging counteracts the efficient use of reusable transport packaging. Presenting the current diversity of variants in reusable packaging is not economically and ecologically sensible.

- > The proposal for the EU Packaging and Packaging Waste Regulation (PPWR) on 30.11.2022 envisages **mandatory reuse targets for transport packaging**. Germany is far away from those targets.
- > In this context, the Association of German Corrugated Board Industry (VDW) aims to investigate the effects of the reuse targets on the German market.
- > Subject of the study is **transport packaging in line with the PPWR proposal** on 30.11.2022.
- > The subcategories of transport packaging can be seen from the figure on the right.
- > The breakdown into subcategories is necessary because the following aspects of those subgroups differ:
  - **points of waste generation**
  - **type** of packaging used
  - **requirements for reusable packaging**
  - fillers and the **users of reusable packaging** are different
  - logistics, especially **return logistics**.



- > The PPWR proposal lays down concrete reuse targets for certain types of transport packaging by 2030.
- > **Transport packaging made of paper, carton, cardboard** in the category a - c is **exempted from** reuse target specifications. They are therefore not subject of the scenario.
- > This scenario consequently examines the impact on the market for corrugated cardboard packaging market if the wording of the PPWR draft of 30<sup>th</sup> November 2022 would enter into force.

type of transport packaging		reuse target 2030
a	pallets, crates, folding boxes, buckets, etc. for the transport of products	-
b	grouped packaging	-
c	transport packaging in domestic trade	-
d	large household appliances	90%
e	e-commerce packaging	10%

Packaging material	Current	2030	2030 vs. Current	2040	2040 vs. 2030	2040 vs. Current
corrugated cardboard	4.302 kt	4.163 kt	-139 kt	3.722 kt	-441 kt	-580 kt
plastic (established system)		114 kt	+114 kt	359 kt	+245 kt	+359 kt
<b>Total*</b>	<b>4.302 kt</b>	<b>4.277 kt</b>	<b>-24 kt</b>	<b>4.081 kt</b>	<b>-196 kt</b>	<b>-220 kt</b>
plastic (purchase in year 1)		285 kt	+285 kt	781 kt	+496 kt	+781 kt
<b>Total* (purchase in year 1)</b>	<b>4.302 kt</b>	<b>4.448 kt</b>	<b>+146 kt</b>	<b>4.503 kt</b>	<b>+55 kt</b>	<b>+202 kt</b>
<b>reuse targets in the reuse scenario</b>						
grouped packaging		-		-		
other transport packaging i.n.s.		-		-		
transport packaging in domestic trade		-		-		
e-commerce packaging		10%		50%		
packaging for large household appliances		90%		90%		

\* Consumption of transport packaging within the meaning of the PPWR. Sales packaging that occurs in industry and large enterprises is not taken into account.

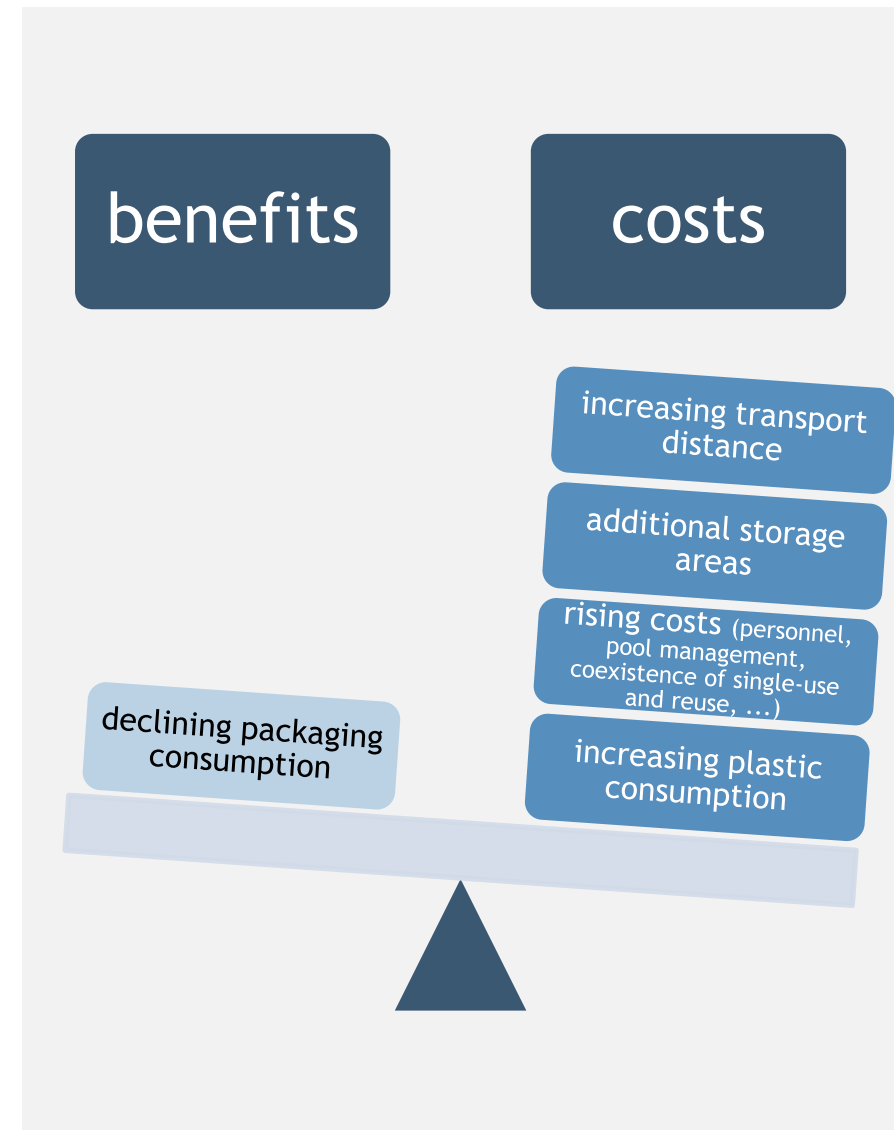
- > In the 2040 scenario with higher shares of reusable packaging, corrugated board consumption would decrease by 0.58 million tons annually to 3.7 million.
- > In order to meet the reuse targets for 2030, 285 kt of plastic packaging must be purchased in the first year.

Impacts on the German market if Article 26 of the PPWR proposal on November 30th, 2022, enters into force. The reuse targets for grouped packaging and other transport packaging in the narrow sense are not included in this evaluation due to the exception defined in the PPWR proposal.

Nr.	Parameter	2030	2040
1	Consumption of packaging made from paper, carton, cardboard in tons (total consumption)	-2 %	-7 %
2	Consumption of packaging made from cardboard in tons (transport packaging as defined in the PPWR draft)	-3 %	-13 %
3	Consumption of plastic packaging in tons (total consumption)	+3 %	+11 %
4	Consumption of virgin material in tons (transport packaging within the meaning of the PPWR), plastics & cardboard	+1 %	+1 %
5	Consumption after recycling in tons (transport packaging within the meaning of the PPWR), plastics & cardboard	0 %	-1 %
6	Packaging costs	+30 % - +500 %	+40 % - +400 %
7	Storage space by retailer, industry, assembler, and in household	+50 %	+80 %
8	Personnel deployment in the filling process	+20 % - +40 %	+40 % - +60 %
9a	Transport kilometer by truck (percentage)	+130 %	+200 %
9b	Transport kilometer by truck (absolute)	+0.2 bn km	+0.4 bn km
10	Costs for the parallel use of single-use and reusable packaging	↗	↗
11	Packaging pooling management, controlling, deposit-clearing	↗	↗
12	Product damage and complaints	↘	↘

The results from row 6 to 12 are estimated based on expert interviews and literature review.

- > There is an imbalance of costs and benefits if the reuse targets set by the PPWR draft are implemented.
- > Comparatively **low benefits are offset by high costs**.
- > However, the conclusion of this study does not imply that the implementation of reuse transport packaging is not meaningful in individual cases.
- > Reuse transport packaging is already being **used very effectively** for **highly standardized products**.
- > However, requirements for the extensive use of reusable transport packaging in other cases are not worthwhile because the benefits from substituting single-use transport packaging is rather small.



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