

# Targets for Plastic Recycled content in Packaging

PPWD Stakeholder Briefing v1.0  
February 2022



# 1.0 Introduction

As part of the forthcoming update to the Packaging and Packaging Waste Directive (94/62/EC) Eunomia are investigating on behalf of the EU Commission the possible introduction of recycled content targets for plastic packaging. This work is to support the Commission's Impact Assessment submission to the [Regulatory Scrutiny Board](#) in April. All input from stakeholders is therefore required well in advance of this.

## 2.0 Target Setting

The following focuses specifically on the plastic recycled content (RC) targets are represent the measure that is currently being considered for impact assessment. At this stage, detail is confined to the justification for a specific target level and the groups it may apply to. The full specifics of possible implementation (certification process etc.) in the Directive are being worked on in parallel and will be informed by the target setting process (and vice versa).

**Table 2-1 – Preliminary PPWD Plastics Recycled Content Targets**

Product Group	2030		2040 <sup>1</sup>
	Medium	Ambitious	
Contact Sensitive	25%	35%	50%
Non-Contact Sensitive	35%	45%	60%
Beverage Bottles	Already included in SUPD (30%)		65%
<b>Total</b> Indicative across all Packaging (not target)	~30%	~40%	~60%

The following are the key assumptions behind the level and scope of the targets:

- The Ambitious scenario represents the maximum recycled content that is possible, accounting for the material that would be available by meeting the existing 55% recycling rate target by 2030. Expected system losses in sorting and recycling processes are accounted for as well as utilisation of a proportion of the committed capacity of chemical recyclers (2.8mt by 2030<sup>1</sup>).
- The medium scenario is a less optimistic portrayal that provides more freedom if recycling targets are missed and/or capacity is not increased as predicted.
- No distinction between food contact primary and secondary/tertiary is given within the targets as the latter accounts for a very small overall proportion.
- No distinction between flexible/rigid as contact sensitivity is the limiting factor for medium ambition targets (assuming chemical recycling can be effectively deployed for food contact films).

<sup>1</sup> Assuming the 'fuels excluded' mass balance allocation method applies.

- Targets based on expected increases in post-consumer RC but includes pre-consumer RC with the effect of a 5% increase of each target to account for this inclusion (based on data of pre/post-consumer recycled content from Germany).
- Beverage bottles are excluded for the 2030 target and a 2040 target is reintroduced for beverage bottles at close to the limit of circularity know to be achievable.<sup>2</sup>
- Assumes no exemptions for other 'contact sensitive' applications such as pharma and cosmetics due to chemical recycling outputs meeting the requirements of these industries.
- Proposed to set the targets in line with the recycling data reporting (Article 6c(2) of Decision 2005/270) whereby a derogation is given to packaging components below 5% by mass. For example, any packaging containing plastic greater than 5% by mass will have to comply with the target(s).

## 3.0 Capacity

The estimated recycling capacity requirements in Table 3-1 are given as an *output* of material. Input requirements are higher due to losses but will also improve over time if more separate collection and improved sorting is deployed. A total of 2.1 – 3.8 million tonnes of additional recycling output capacity is required depending upon the target level (from 2.1 million tonnes estimated for the BAU 2030 baseline without beverage bottles). Note that this capacity and more is still required for the current *recycling targets* in the PPWD, but the nature of it may be somewhat different as quality of the outputs are likely to be higher than would be required to simply count towards the recycling target.

For the purposes of modelling potential targets it is assumed that all food grade polyolefins will be recycled by chemical (thermal) recycling and all non-food grade will be recycled through physical processes. In reality there will be some movement between these two groups, but these figures provide an indicator of the likely requirements. Equally, if there are advances in mechanical recycling that can provide consistent food grade polyolefin outputs these may also change the dynamic between chemical and physical recycling. In the ambitious scenario the predicted capacity for chemical depolymerisation of PET is significantly higher than required to reach 35% RC for food contact non-beverage PET. However, the capacity could also be used to supplement mechanical recycling of beverage bottles and in other polyester applications.

**Table 3-1 – Estimated Output Capacity Requirements for 2030 (ktonne)**

Technology	Chemical				Physical	
	Thermal (Primarily pyrolysis)		Chemical Depolymerisation (primarily PET)		Mechanical plus dissolution	
Level	Med	Amb	Med	Amb	Med	Amb
Polyolefins	649	1,487	-	-	868	1,330
PET (non bev bottle)	-	-	86	232	30	41
Other (PS,PVC etc)	503 – 726					

<sup>2</sup> How Circular is PET?, ZWE, 2022, [https://zerowasteurope.eu/library/how-circular-is-pet/?mc\\_cid=f6df74c0ee&mc\\_eid=6fb413c78c](https://zerowasteurope.eu/library/how-circular-is-pet/?mc_cid=f6df74c0ee&mc_eid=6fb413c78c)

# 4.0 Questions

The following are some of the key questions that can guide responses to these outline proposals. You may not have information or views on all aspects and may also have additional points to raise. It is important to be constructive in responses in order to improve the quality and impact of the targets and to ease implementation (i.e. if problems are identified, suggested solutions are encouraged). **Evidence and supporting data** for all statements and recommendations should be provided where possible and will be given higher priority for consideration.

**Please provide all input/responses by 25<sup>th</sup> February 2022**

- Are the targets set at the appropriate level? i.e. both ambitious enough to drive change, but feasible to implement.
- Are there any other plastic product/group/categories that should have their own separate targets and why? e.g. films, ridged, by polymer type.
- Are the required recycling capacities (for each level of target) achievable in the timeframe?
- Will the targets set at these levels and for these categories result in material switching? e.g. from or to different polymers or out of plastics entirely.
- Capacity and technology are focused towards polyolefins and PET; ~11% of the packaging market uses other materials such as PS and PVC. Are any materials/product types considered incapable of including recycled content and moving to alternative polymers is not possible?
- Should any particular groups be exempt from the targets?
- What are the likely costs to industry of implementing the targets beyond the requirement for a formalised certification process?