

EU legislation concerning PET circularity: PPWR and SUPD

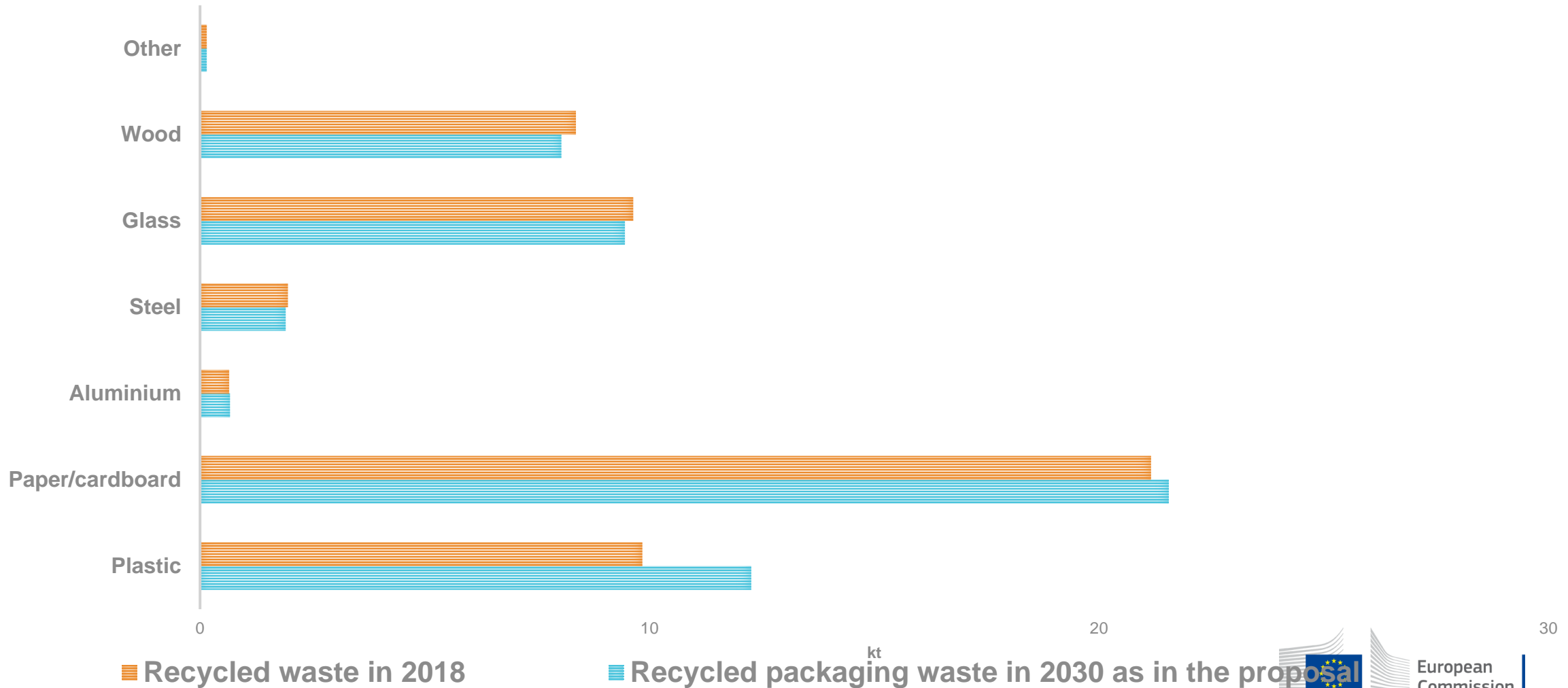
Dr. Wolfgang Trunk

DG Environment-Directorate Circular Economy

Team leader in Unit B3 "From Waste to Resources"

Volumes of recycled packaging waste in 2018 compared to proposal in 2030 (million tons):

ALL Packaging: 51.7 million tons => 54 million tons



Recyclability of packaging: Article 6 (I)

- **Art. 6(1): All packaging shall be recyclable**
- **Art. 6(2): Packaging is recyclable if:**
 - It is **designed for recycling** (as of 1/1/2030)
 - It is effectively and efficiently **separately collected** (reference to Art. 43(1) – (2))
 - It is **sorted** into defined waste stream without affecting the recyclability of other materials
 - It can be **recycled** so that it **results in secondary materials** that are of **sufficient quality** to substitute primary raw materials
 - It can be **recycled at scale** (as of 1/1/2035)
 - **Art. 6(3): From 1/1/2030: recyclable packaging shall comply with DfF criteria** to be established in a delegated act(-s) ref. to in para. 4
- **Art. 6(3): From 1/1/2035: recyclable packaging shall comply in addition with ‘at scale’ recyclability criteria**; the methodology to be established via a delegated act(-s) – ref. to in para. 6
- **Art. 6(5): Performance grades** (based on Table 2 in Annex II) range from A to E: **Grade E** means that such packaging is not recyclable and cannot be PoM

Recyclability of packaging – Article 6 (II)

- **Art. 6(4) and Art. 6(6): COM empowered to adopt DAs** to establish:
 - **DfR criteria** for all **packaging categories** in Table 1 of Annex II and for **recycling performance grades** in Table 2 of Annex II
 - DfR criteria shall be based on state-of-the art infrastructure and cover all packaging components
 - Further details in paragraph 7
 - **Amend Table 1** of Annex II – categories – to adapt it to the scientific and technical development
 - Methodology for assessment of '**at scale**' **recyclability** based on:
 - Amounts of packaging PoM in EU and each MS;
 - Amounts of separately collected packaging waste per material (Annex II, Table 1) in EU and each MS;
 - Recycling rates per packaging type in Annex II Table 1 in EU and each MS;
 - Installed infrastructure capacities for sorting and recycling in the EU for each packaging type in Annex II, Table 1.
 - Rules on **the modulation of EPR fees** based on **recyclability performance grade** and, in addition, based on **recycled content for plastic packaging**

Recyclability of packaging – Article 6 (III)

Art. 6(7):

The criteria, which COM is empowered to adopt in DAs under para. 3 and 5 shall establish:

- DfR criteria per packaging material and type as listed in Table 1 of Annex II (i.e. packaging categories)
- recyclability performance grades (listed in Table 2 of Annex II) based on the percentage of the packaging unit, in weight, which is recyclable;
- conditions for reaching a certain performance grade for each category in Table 1 of Annex II
- EPR fees modulation based on packaging recyclability performance grades (see also paragraph 11)
- The manner how to assess the recyclability at scale for each packaging category in Annex II, Table 1 (after 2035) in order to establish updated recyclability performance grades

Recyclability of packaging – Article 6 (IV)

- **Article 6(8): showing compliance:**

- compliance with para. 2 and 3, as well as 9 (innovative packaging) shall be shown in the technical documentation as set out in Annex VII
- The assessment of compliance shall include integrated components, whereas for separate components, the assessment of compliance shall be done separately
- All components shall be compatible with the state-of-the-art collection, sorting and recycling processes and shall not hinder the recyclability of the main packaging body

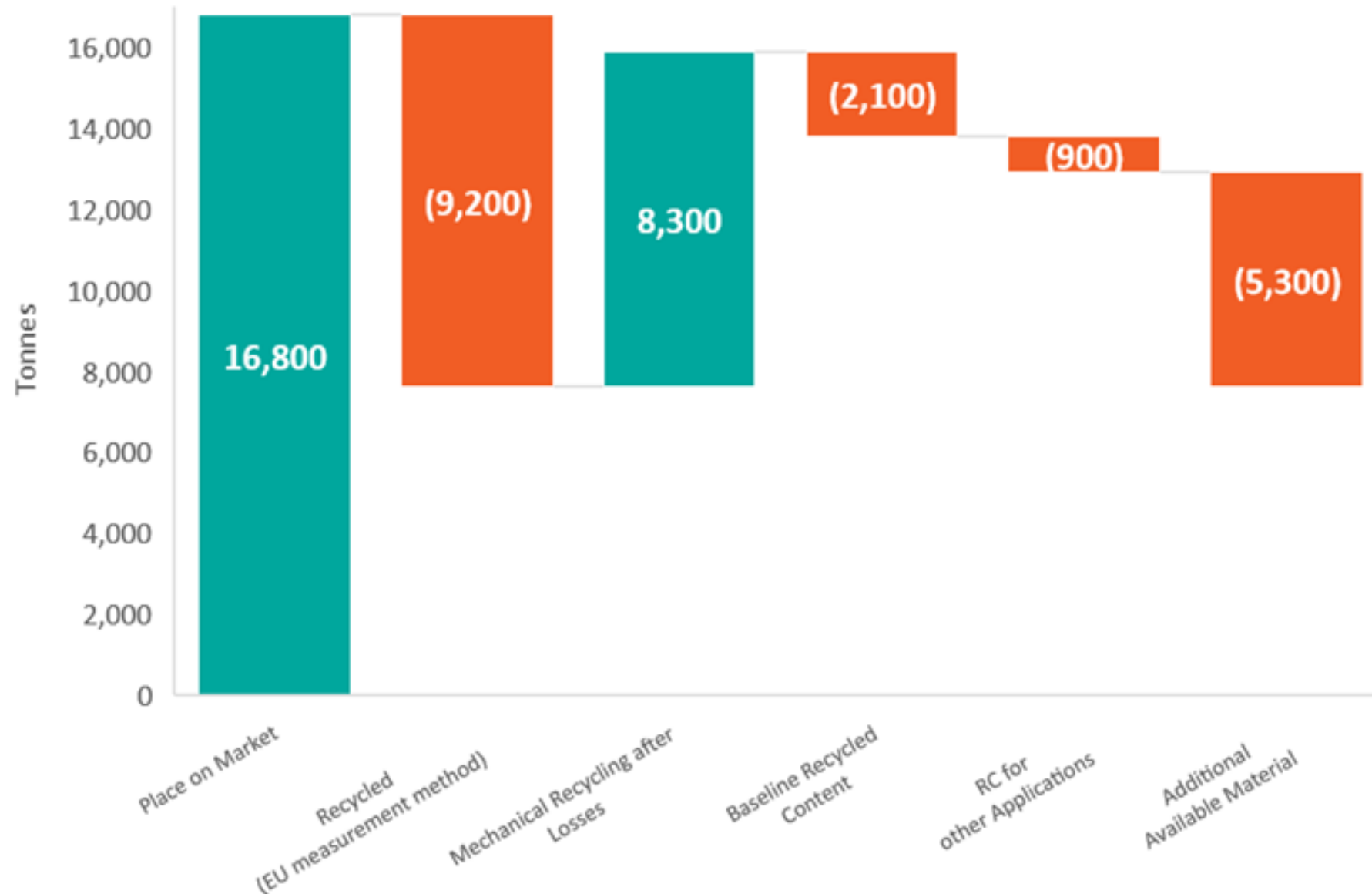
- **Article 6(9) and 6(10) - Exemptions:**

- Innovative packaging: as of 2030, such packaging can be placed on the market for max. 5 years after the end of the calendar year when it was placed on the market
- Until end of 2034: immediate pharmaceutical packaging and contact-sensitive packaging for medical devices

- **Article 6(11) – EPR fee modulation:**

- To be modulated based on the recyclability performance grade
- In the case of plastic packaging, in addition also based on recycled content

Art 7: Recycled content in plastic – Mass flow (kt ex SUP bottles)



Recycled content in plastic packaging (Art 7)

- Minimum inclusion rates for post-consumer **recycled content** (RC) in **plastic** containing packaging part (not for other packaging materials: glass, metal, paper), stepwise increasing from 2030 to 2040
- Product requirement with respect to **packaging placed on the EU market** - demonstrated in the technical information concerning the packaging referred to in Annex VII (CONFORMITY ASSESSMENT PROCEDURE) to the market surveillance authorities of MS
- 'contact sensitive packaging' (Art 3 (40)): packaging that is intended to be used in any packaging applications in the scope of Regulations: (EC) No 1831/2003, (EC) No 1935/2004, (EC) No 767/2009, (EC) No 2009/1223, (EU) 2017/745, (EU) 2017/746, (EU) 2019/4, (EU) 2019/6, Directive 2001/83/EC, or Directive 2008/68/EC

Main inclusion rates of recycled content in plastic part of packaging

Packaging	2030	2040
Plastic Beverage bottles	30%	65%
Contact sensitive packaging:		50%
PET as major component	30%	
Other than PET	10%	
Other plastic packaging	35%	65%

Measure 35e Post-consumer Recycled Content Increases (kt)

Group	Material	2030		2040
		PPWR	Ambitious	
Contact Sensitive	Polyolefin	160	1,140	2,900
	PET	230	230	770
	Other	100	340	770
	Total	490	1,710	4,440
Non-Contact Sensitive	Polyolefin	1,270	2,080	4,940
	PET	40	50	90
	Other	330	440	780
	Total	1,640	2,570	5,810
Beverage Bottles	Polyolefin	-	30	50
	PET	-	670	1,470
	Total	-	700	1,520
Grand Total		2,130	4,980	11,770

Recycled content in plastic packaging (Art 7) cont`

- **Exemptions:** (a) immediate packaging as defined in Article 1, point (23), of Directive 2001/83/EC and in Article 4, point (25), of Regulation (EU) 2019/6; (b) contact sensitive plastic packaging of medical devices covered by Regulation (EU) 2017/745; (c) contact sensitive plastic packaging of in vitro diagnostics medical devices covered by Regulation (EU) 2017/746; (d) outer packaging as defined in Article 1, point (24), of Directive 2001/83/EC and in Article 4, point (26), of Regulation (EU) 2019/6 in cases where such packaging is necessary to comply with specific requirements to preserve the quality of the medicinal product, & compostable plastic packaging
- **Methodology for calculation and verification of RC** to be come in IA by 2027, to be mandatorily applied by voluntary RC claims as of 2029
- **Link of RC with EPR fees** as of 2030 (for plastic packaging)
- By 2028, mandatory COM **assessment of derogations from the minimum percentage laid down in Art 7 (1) points b and d** (*contact sensitive packaging made from plastic materials other than PET, except single use plastic beverage bottles, and non-contact specific packaging*), and to come up, if appropriate, with a **DA to establish derogations or withdraw derogations established.**

Recycled content in plastic packaging (Art 7) cont`

- General COM empowerment to review by DA minimum RC rates considering problems in market supply of recycled plastics for specific packaging types: ...**lack of availability or excessive prices of specific recycled plastics** that may have **adverse effects on human or animal health, security of food supply or the environment**, making compliance with the minimum percentages of recycled content set out in paragraphs 1 and 2 excessively difficult...
- **CR complementing MR**

SUPD

- Article 6(5) of the Directive on single-use plastics (SUP Directive) sets two separate targets for recycled plastic content in SUP beverage bottles:
 1. the 2025-target of 25 % recycled plastic content for PET bottles, and
 2. the 2030-target of 30 % recycled plastic content for all SUP beverage bottles.
- PET bottles make up ca. 97 % of SUP beverage bottles and are commonly recycled mechanically. Non-PET bottles require certain chemical recycling techniques (such as pyrolysis and gasification) for which a mass balance chain-of-custody method is needed. Mass balance accounting is controversially discussed among Member States, industry and NGOs. At the same time, Member States will have to report data on recycled content in SUP beverage bottles for 2023 onwards and we need to provide them with a methodology to calculate, verify and report on recycled content as soon as possible.
- COM: 2-step approach
 - (i) adopting an implementing decision that covers mechanically recycled PET (which does not require mass balance accounting) and
 - (ii) amending this decision to include chain of custody models, in particular mass balance accounting, to account also for chemically recycled plastic.

Reality check rPET

Implementation of Regulation (EU) 2022/1616 on recycled plastic FCMs

- **authorisation** Decisions
- administrative activities – **register of installation**, recyclers, etc – transparency

Row	RIN	1.1. Name of recycling installation	1.2. Member State	RFN	RON
1	AT3-9RF-0IC	Dannemann_deCON	Austria	AT3-6ED-0FJ	AT3-6ED-00H
2	AT2-42S-0IL	Vacurema Advanced Bj 05, Building H 3.2.	Austria	AT2-7U4-0FI	AT2-7U4-00G
3	AT2-6Q6-0ID	Vacurema Advanced Bj 18, Building H 3.3.	Austria	AT2-7U4-0FI	AT2-7U4-00G
4	AT1-668-0IO	PET to PET URRC Anlage	Austria	AT1-61T-0FC	AT1-61T-00A
5	AT1-4HV-0I3	PET to PET Granulierungsanlage	Austria	AT1-61T-0FC	AT1-61T-00A
6	AT1-4PL-0IN	PRT Line EX1	Austria	AT1-9B3-0FM	AT1-9B3-00K
7	AT1-5FT-0IO	PRT Line EX3	Austria	AT1-9B3-0FM	AT1-9B3-00K

- rPET must come from authorised process subject to collection (95% food grade) and documentation requirements

Market developments !?