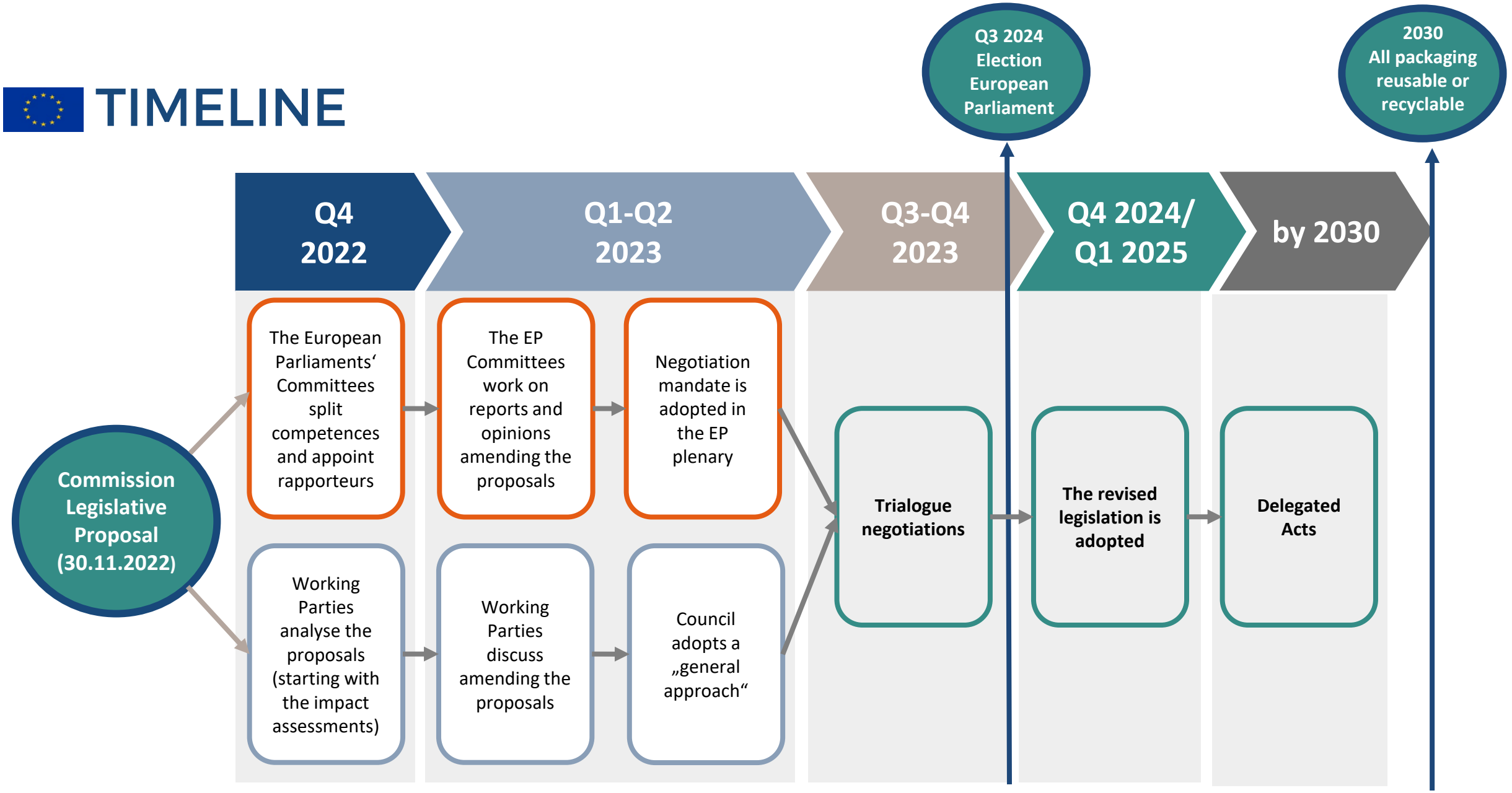
CIRCULAR ANALYTICS

Strategies for a Transition to Circular Economy

PACKAGING AND PACKAGING WASTE REGULATION UPDATE SEPTEMBER 2023

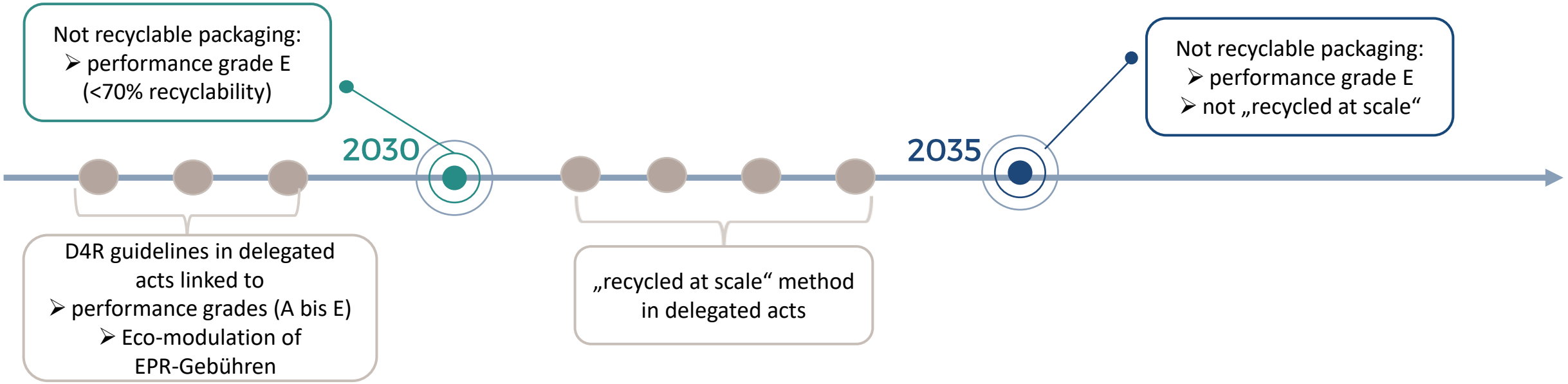
SEPTEMBER 2023

TIMELINE


Q3 2024
Election
European
Parliament
2030
All packaging
reusable or
recyclable
Q4
2022
Q1-Q2
2023
Q3-Q4
2023
Q4 2024/
Q1 2025
by 2030
Commission
Legislative
Proposal
(30.11.2022)
The European Parliaments' Committees split competences and appoint rapporteurs
The EP Committees work on reports and opinions amending the proposals
Negotiation mandate is adopted in the EP plenary
Working Parties analyse the proposals (starting with the impact assessments)
Working Parties discuss amending the proposals
Council adopts a „general approach"
Trialogue negotiations
The revised legislation is adopted
Delegated Acts

RECYCABLE PACKAGING (ART. 6)

- Packaging has to be recyclable **by 2030**
- Two-stage approach:
  - → from 2030 packaging must meet D4R criteria
  - → from 2035 packaging must be additionally be effectively collected sorted and recovered („recycled at scale“)



RECYCLABLE PACKAGING (ART. 6)

Design for Recycling Criteria

- Defined in delegated acts

Annex II

1. Table 1: List of 30 packaging materials, types und categories
   - Criteria: packaging material, -type, -format und color
   - Amounts of packaging placed on the EU market and in each member state have to be reported
   - Recycling rates for all 30 defined packaging have to be reported

2. Table 2: Recyclability Performance Grades
   - Classification according to D4R-Critera and weight of packaging unit
   - Grades A to E

Recyclability Performance Grades	Assessment of recyclability per unit, in weight
Grade A	≥ 95%
Grade B	≥ 90%
Grade C	≥ 80%
Grade D	≥ 70%
Grade E	< 70%

Annex II, Table 2

- **Eco-modulation:** Harmonization of criteria for based on performance grades
  - starting 2035
  - Fees not yet determined

PACKAGING MINIMISATION (ART. 9) & WASTE PREVENTION (ART. 38)

Packaging Minimisation

- until 2030
- Weight and volume of a package as low as possible
- Empty space is to be reduced to the necessary minimum
- Safety and functionality of the packaging has still to be guaranteed

Waste Prevention

- Member States‘ packaging **waste reduction targets** (per capita, base year 2018):
  - 5% by 2030
  - 10% by 2035
  - 15% by 2040
- Member States are responsible for:
  - avoiding packaging waste
  - Minimization of environmental impacts from packaging

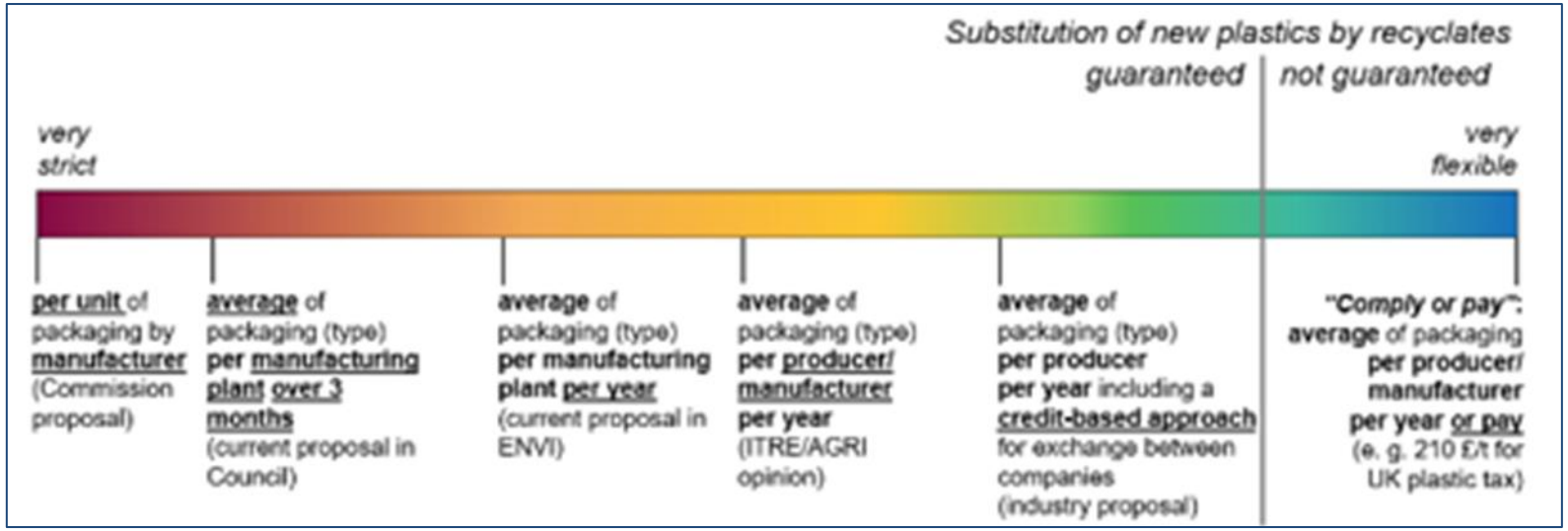
MINIMUM RECYCLED CONTENT IN PLASTIC PACKAGING (ART. 7)

- Plastic packaging must contain a minimum recycled content (PCR) starting in 2030
- Planned: Implementing act for the methodology of calculation and verification of percentage PCR recyclate.

Packaging Type	2030	Packaging Type	2040
Contact sensitive packaging with PET as main component	30%	-	-
Contact sensitive packaging (except for PET and single-use plastic beverage bottles)	10%	**Contact sensitive packaging** (except for single-use plastic beverage bottles)	50%
Single-use plastic beverage bottles	30%	**Single-use plastic beverage bottles**	65%
other plastic packaging	35%	**Other plastic packaging**	65%

PPWR

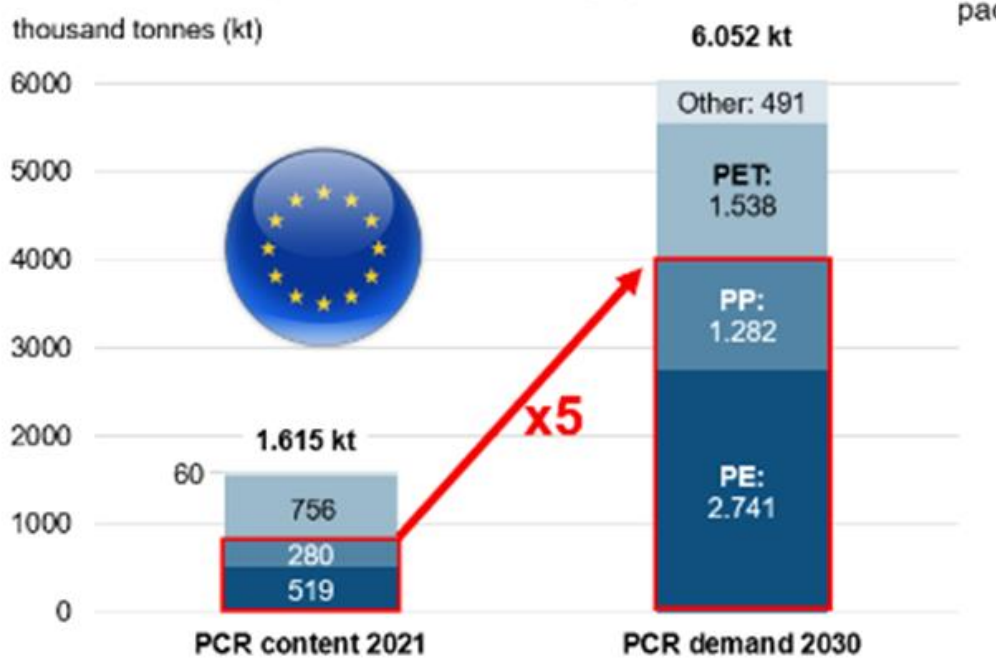
- Minimum recyclate content in discussion
  - Commission: „Calculation per unit of packaging“
    - *Average of packaging format (30) per production plant & per year or per 3-month-period (Spanish EU presidency)*
    - *Problem of recyclate shortage - recommendation of parliament rapporteur Ries: It will not be technically possible by 2030 to provide sufficient plastic recyclates (except PET) to meet the minimum recycled content quotas for so-called contact-sensitive plastic packaging*



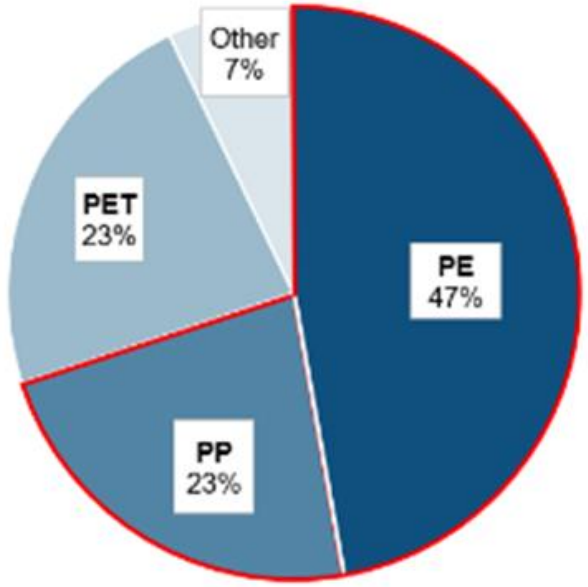
Amount of recycled polyolefins (PE, PP) would have to increase FIVEFOLD to meet the proposed 2030 recycled content quotas

IK Industrievereinigung Kunststoffverpackungen e.V.

Post-consumer recyclates (PCR) in packaging:



Polyolefins (PE, PP) are the most important polymers for packaging (polymer shares in packaging market 2021):



Source: Conversio Market & Strategy GmbH (2023). PCR demand 2030 is based on Commission's PPWR proposal for quotas.
Simplifying assumptions: 50% of total packaging volume are contact-sensitive packaging and no company uses more than required by quotas.

Current PCR amount in packaging in the EU and estimates of the demand in 2030 based on the quotas.

PPWR - RECYCLING AT SCALE

- PPWR-draft: packaging waste has to be collected, sorted and recycled through installed state-of-the-art infrastructure and processes covering at least 75% of the EU population
  - For each of 30 packaging formats
  - Applicability to industry packaging not clear (population is not meaningful as a criterium)
  - *ENVI Committee of EU Parliament suggests deleting the 75% criterion but requires "the existence of a clear pathway and sufficient capacity for the collected packaging waste to be directed to defined and recognised waste streams through established industrial processes for reprocessing"*
  - No agreement reached yet

GERMAN MINDESTSTANDARD (SEP 2023)

- Currently no alignment with CEN!
- Fullsleeves of PET-bottles: Certificates for NIR transparency for sleeves with light barrier required
- Plastic coated paper: NIR-compatibility required
- Ban on Nitrocellulose based printing for large films (> A4) for interlayer printing („Zwischenlagendruck“)
  - Low temperature stability
  - Recommendation: NC printing

[41] Das sachliche Erfordernis, NC-basierte Druckfarben im Direktdruck und PVC-basierte Druckfarben im Zwischenlagen- oder Direktdruck als unverträglich einzustufen, wird im Rahmen des Mindeststandards 2024 ebenso geprüft wie die Notwendigkeit einer entsprechenden Einordnung für PE-flex < DIN A4 und PP-flex.

CEN - UPDATE

- CEN shall develop a standard for DfR for plastics packaging (mandate of EU-commission)
- Timeline:
  - DfR Guidelines for PE, PS, PP and PET in development (rigid and flexible)
  - Methodology on recyclability assessment (test methods)
  - Minimum of 50% plastics content
  - Not yet started: other materials
- Harmonized standards for plastics
  - Standard publication planned for 2025
  - Technical updates of WG till 03/2024

EU TAXONOMY

- Basis of EU`s sustainable finance framework – should increase transparency
- Aligned with European green deal
- Classification scheme for sustainable economic activities
- „what is sustainable?“
- Goals of EU-taxonomy (2020)
  - Definition of sustainable economic activities
  - Reduce greenwashing
  - Give orientation to investors and companies
  - Transparency by required publishing of taxonomy relevant sales and investitions
- Six environmental objectives
  - Climate change mitigation
  - Climate change adaptation
  - Sustainable use and protection of water
  - Transition to circular economy
  - Pollution prevention and control
  - Protection and restoration of biodiversity and ecosystems

EU TAXONOMY II

- Plastics packaging is already partly regulated by EU taxonomy (Technical screening criteria for EU taxonomy-report & annex)
  - Manufacture of plastics packaging
  - Food products and beverages
  - Specific criteria about DfR, reuse, recyclability, recycled content
- So, plastics manufacturing can be sustainable
  - Plastics can substantially contribute to climate change mitigation and adaptation
  - Categorized as transitional activity (it can contribute as long as there is no technologically and economically feasible low-carbon alternative available)
  - Plastics manufacturing is sustainable when
    - Feedstock is either mechanically or chemically processed recyclate or renewable
    - GHG emissions must be lower than plastics from fossil fuel feedstock
  - Manufacture of plastic goods can be sustainable when
    - Right feedstock being used & DfR criteria fulfilled (circular economy) & recycled in practice
    - NOT ALIGNED WITH PPWR!! -> what does that mean for investments?
    - Only for plastics packaging – not for other materials

PPWR - IMPACTS ON PACKAGING DESIGN

Need of an updated **set of sustainability indicators** for packaging to reach targets

- Packaging weight
- Detailed packaging composition
- Recyclability
- Recycling rates
- Recyclate quality
- Recyclate content
- Carbon footprint
- Emptiablity of packaging

PPWR - CHALLENGES & SUMMARY

- Rework packaging strategy and update goals in accordance with PPWR
  - Ensure recyclability (all packaging materials)
  - Reduction of packaging weight of portfolio
  - Reduce overpackaging / use benchmarking
  - Improve emptiability of packaging – reduce food waste
  - Reduce carbon footprint
  - Reduce unnecessary packaging if possible

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