

No regrets!

The journey to design *your* plastic packaging for recycling can begin today.



Background

- Moving towards harmonisation of Design for recycling guidelines over Europe under PPWR brings some areas of uncertainty in the process
- Fost Plus have worked together with different EPR organisations (Valipac, Verpact, Citeo, Grontpunkt Norway and NPA Sweden) in this presentation to address these uncertainties.
- We have built together with the different EPR's mentioned and Emerging Motif a presentation that addresses these certainties and uncertainties. This can help you make decisions and be prepared in time for the deadline of 2030.
- This presentation was built based on the comparison of the CEN guidelines with the Recyclclass and Cotrep guidelines

NOTE: This document addresses the requirements of Article 6 of the EU Packaging and Packaging Waste Regulation (PPWR, Regulation (EU) 2025/40) on recyclable packaging. The PPWR places further requirements on certain packaging, such as minimisation, reuse and it contains market restrictions for certain single use plastic packaging applications. These topics are not covered in this document but will need to be considered by the designers and manufacturers of packaging.

Note: Fost plus can not be made accountable for investments or decisions based on this presentation. However as the EPR organisations are highly implicated in the process towards European harmonisation of Design for recycling guidelines we want to share our know-how with the companies as much as possible.

What to Expect from This Presentation

Design for Recycling

- Understand the meaning of design for recycling
- Learn how packaging will (most likely) be assessed under the PPWR
- Get prepared for the future requirements under the PPWR

Core Design Principles

- Understand design principles which are firmly expected to be in line with PPWR

Examples

- Obtain and understanding and inspiration from best-case and problematic packaging examples

Design for Recycling



What is Design for Recycling of packaging?

‘design for recycling’

means the design of packaging, including individual components of packaging, that ensures the recyclability of the packaging with established collection, sorting and recycling processes proven in an operational environment

[SOURCE: Regulation (EU) 2025/40]

‘recyclability’

means the compatibility of packaging with the management and processing of waste by design, based on separate collection, sorting in separate streams, recycling at scale and the use of recycled materials to replace primary raw materials

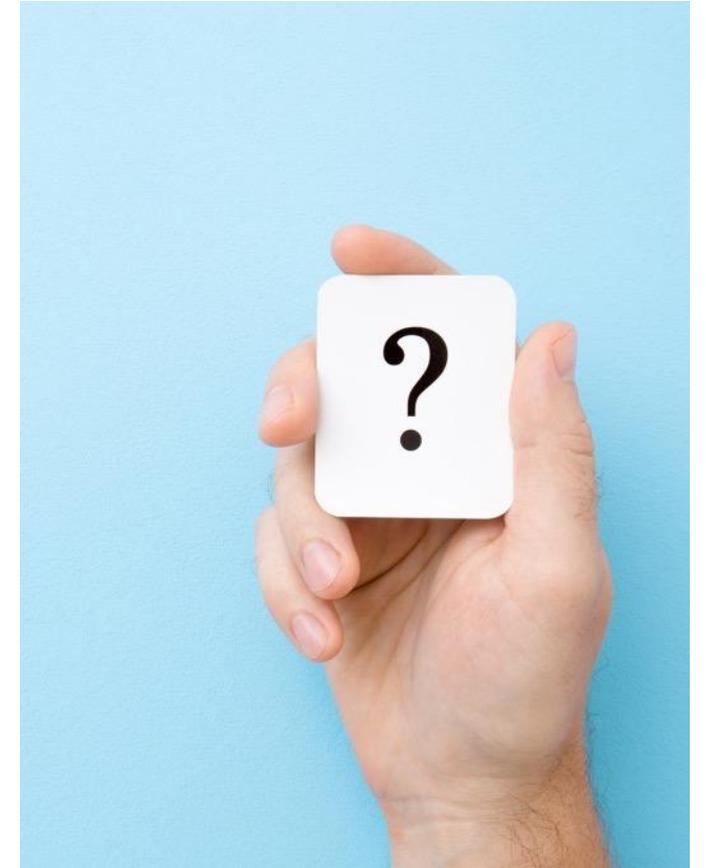
[SOURCE: Regulation (EU) 2025/40]

Design for recycling is a task for the designer of packaging. It is about creating and ensuring the **potential** of packaging to be recycled.

Recyclability is a mission for the entire value chain to realise the **actual recycling** of designed-for-recycling packaging by 2035.

Why is Design for Recycling Important?

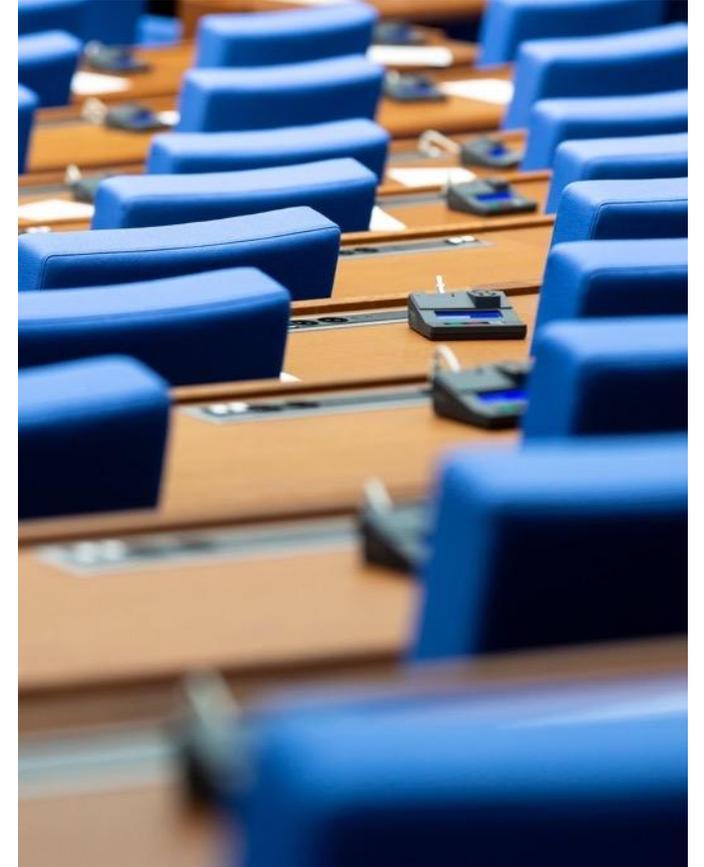
- Unlocks **environmental benefits**
- Basis for a **circular economy** for packaging (together with reduce & reuse approaches)
- Already a **consumer expectation**
- Will become a **legal requirement in the EU** for most packaging from 2030 onwards
(EU Packaging and Packaging Waste Regulation, i.e., Regulation (EU) 2025/40, 'PPWR')
- More and higher-quality recycling **reduces waste-management costs and EPR fees**



What is the PPWR?

Regulation (EU) 2025/40 on packaging and packaging waste

- A recent EU Regulation created as part of the EU Green Deal and replacing the former directive (PPWD)
- Considered one of the most complex pieces of EU legislation to date
- Covers nearly all packaging in the EU market
- Applies from **12 August 2026**, with several requirements applying later, e.g., 2030, 2035 and 2038
- **Key aims:**
Reduce waste, promote reuse and recycling, and increase the use of recycled materials



Main Requirements of the PPWR:

All about packaging design



NOTE: Certain packaging uses (e.g., certain medical packaging, packaging of dangerous goods) are exempt from certain of the requirements of PPWR. See the Regulation's text for details

NOTE: The date of application of the various requirements is not necessarily the first of January of the stated year.

Conformity with PPWR:

DfR is an obligations of 'manufacturers'

Article 15(1)

Manufacturers shall only place on the market packaging which is in conformity with the requirements laid down in or pursuant to Articles 5 to 12.

[SOURCE: Regulation (EU) 2025/40]

NOTE: There is substantial complexity to the designations of 'manufacturer', 'supplier' and 'producer' and more legal clarity is expected to be provided by the EU Commission in upcoming guidance.

'manufacturer'

means any natural or legal person that manufactures packaging or a packaged product; however:

(a) subject to point (b), where a natural or legal person has packaging or a packaged product designed or manufactured under its own name or trademark, regardless of whether any other trademark is visible on the packaging or on the packaged product, 'manufacturer' means that natural or legal person;

(b) where the natural or legal person that has the packaging or packaged product designed or manufactured under its own name or trademark falls within the definition of micro-enterprise set out in Recommendation 2003/361/EC as applicable on 11 February 2025, and the natural or legal person that supplies the packaging to the natural or legal person that has the packaging designed or manufactured under its own name or trademark is located in the same Member State, 'manufacturer' means the natural or legal person that supplies the packaging

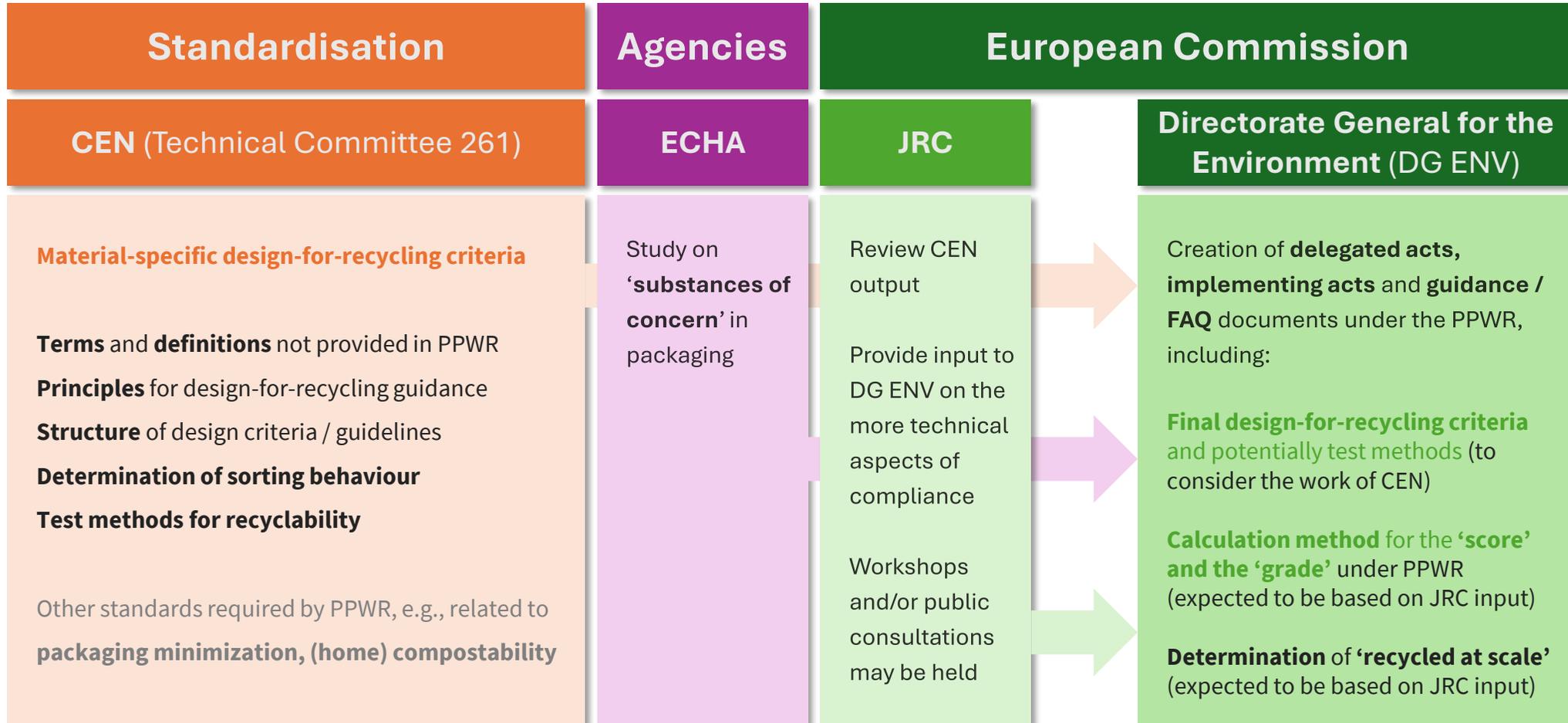
[SOURCE: Regulation (EU) 2025/40]

Verifying Design for Recycling under PPWR: The Expected Principle



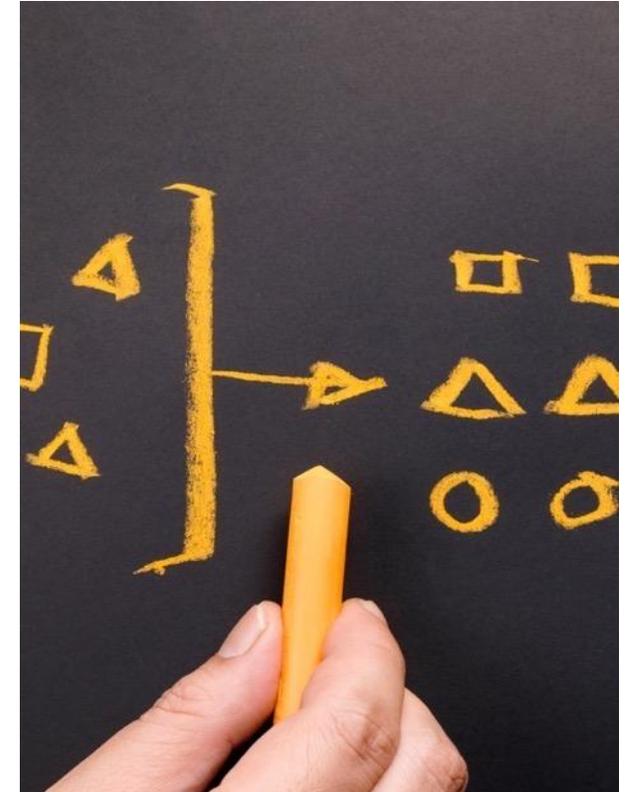
While some details are still under development, the core design-for-recycling criteria are already becoming clear.

Who Is Working on the Missing Details?



The Role and Importance of the Work in European Standardisation (CEN)

- CEN roles and activities:
 - Defining clear, formal methods for deriving and applying design-for-recycling criteria and test methods
 - Harmonising existing guidelines into one European reference per packaging category
 - Creating recyclability test methods with a focus on repeatability and reproducibility
- **All standards follow the consensus principle – making them the most robust guidance available today**



The new CEN standards will provide substantial advances in clarity, harmonisation and robustness of design-for-recycling criteria. These standards are expected to form the basis of the work of the EU Commission.

CEN Standards and PPWR: Key Considerations

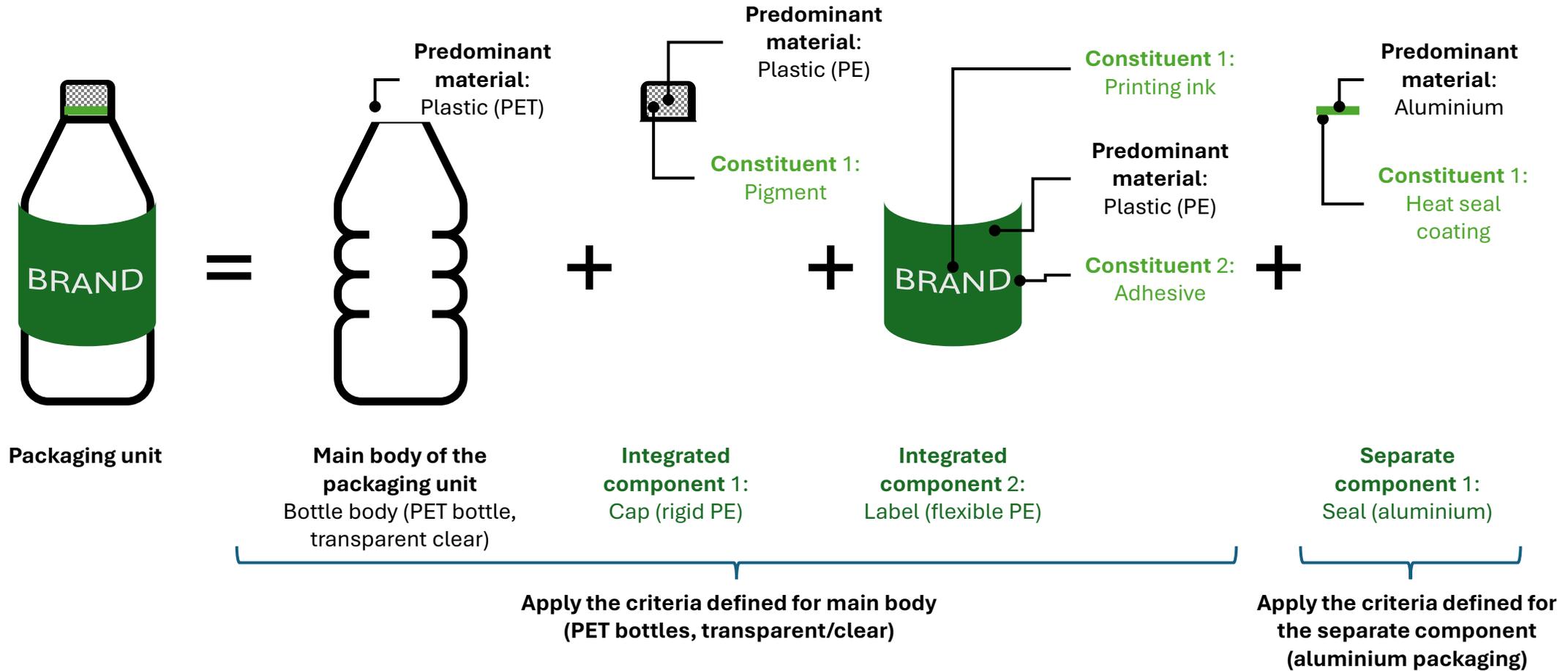
- PPWR does not call for harmonised design-for-recycling standards → **CEN standards alone cannot be used to prove conformity with Article 6.**
- CEN standards are inputs to the EU Commission's work on PPWR secondary legislations
PPWR → **CEN standards themselves are not (the) legal requirements.**
- The EU Commission must consider CEN standards but may introduce changes.
- Until 2030, national legislation applies for design for recycling of packaging.
- Article 6 requires 'design for recycling' and 'recycled at scale' (from 2035); this may affect the grade under PPWR.
- CEN standards are expected to be revised at least once before the design-for-recycling requirements apply 2030.



The new CEN standards will provide detailed guidance. **However, the exact requirements of the secondary legislation for PPWR could still differ from the standards.**

A Logic for the Design-for-Recycling Assessment:

Provided by the PPWR and the CEN standards



You can already have good confidence in how the assessment of packaging will occur.

Select Plastics with Established Recycling Streams

- Fundamental requirement: Choose plastics with an existing recycling stream.
- Collection and suitable sorting infrastructure must be available (state-of-the-art principle).
- **Upcoming CEN standards for plastic packaging cover PPWR categories 7, 8, 10 to 16.**
- **These standards recognise at least one state-of-the-art recycling stream for these categories.**

PPWR Category	Material
7	PET – rigid bottles (differentiated criteria expected for: clear/transparent light blue; transparent other colours; opaque white; opaque other than white)
8	PET – other rigids (e.g., trays) (differentiated criteria expected for: clear vs. coloured)
9	PET – flexible
10	PE – rigid (differentiated criteria expected for: natural colour vs coloured, and household vs. industrial/commercial expected)
11	PE – flexible (differentiated criteria expected for: natural colour, coloured, white and household vs. industrial/commercial expected)
12	PP – rigid
13	PP – flexible (differentiated criteria expected for: natural colour, coloured/white and household vs. industrial/commercial expected)
14	HDPE and PP – crates, pallets and corrugated plastic board
15	PS and XPS – rigid (differentiated criteria expected for: densities above / below 1; PS vs XPS)
16	EPS – rigid (differentiated criteria expected for: fish boxes, protective packaging)
17	Other rigid plastics (e.g. PVC, PC) including multi-materials – rigid
18	Other flexible plastics including multi-materials – flexible
19	Biodegradable plastics – rigid (e.g. PLA, PHB) and flexible (e.g. PLA)

PPWR category for which an EN standard has been developed

PPWR category for which no EN standard has been developed (technical specifications may yet be developed)

By choosing one of these materials for your packaging, you can minimise risks.

The future assessment of other plastic packaging categories (e.g., categories 9, 17-19) is less certain.

A Clear Expectation for the Structure of Design-for-Recycling Criteria and Guidelines

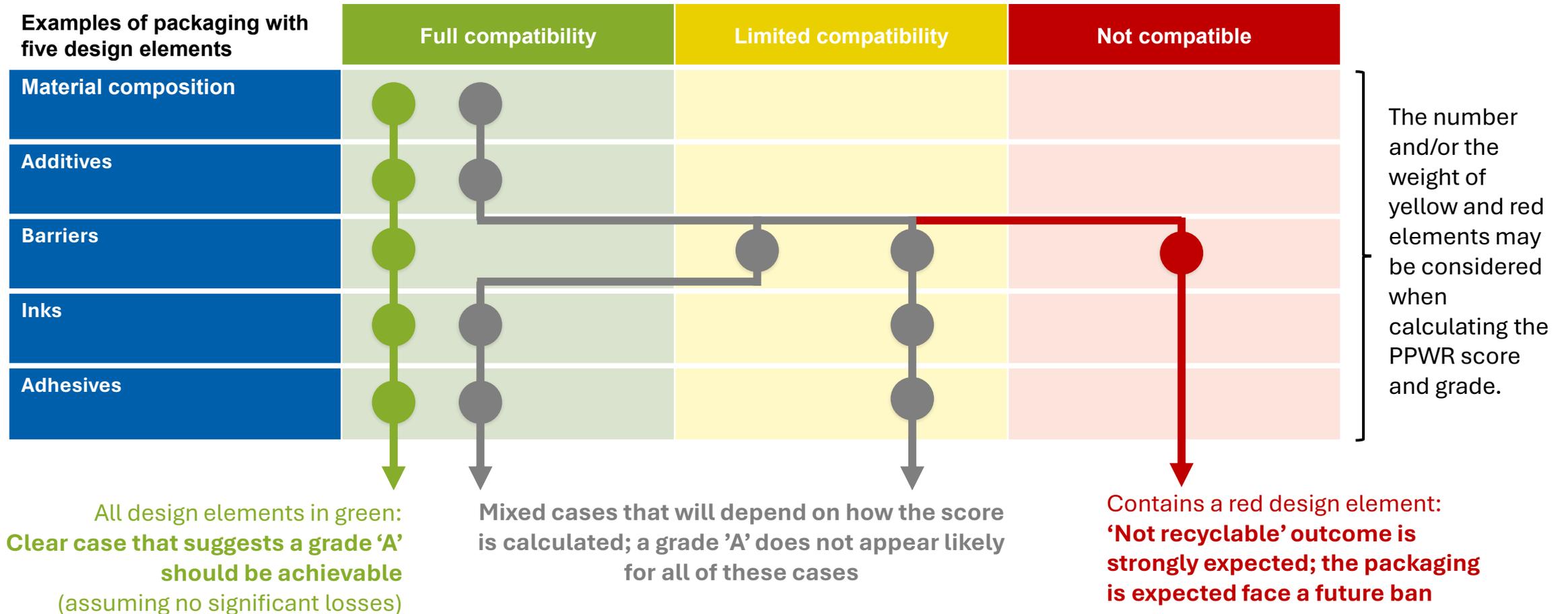
- Design guidance and criteria are expected to follow a 'traffic light' approach (green/yellow/red).
- Minor variants of this well-established approach may be used to provide additional information or nuance in the final approach.
- Alternate approaches, such as using 'categories' for integrated constituents and components appear less likely at this stage.

	Full compatibility	Limited compatibility	Not compatible
Material composition	Green	Yellow	Red
Barriers	Green	Yellow	Red
Inks	Green	Yellow	Red
Laminating adhesives	Green	Yellow	Red
...	Green	Yellow	Red

In 2026, CEN will publish its series of standards on plastic packaging design for recycling,* which seek to harmonise the different industry guidelines that already exist.

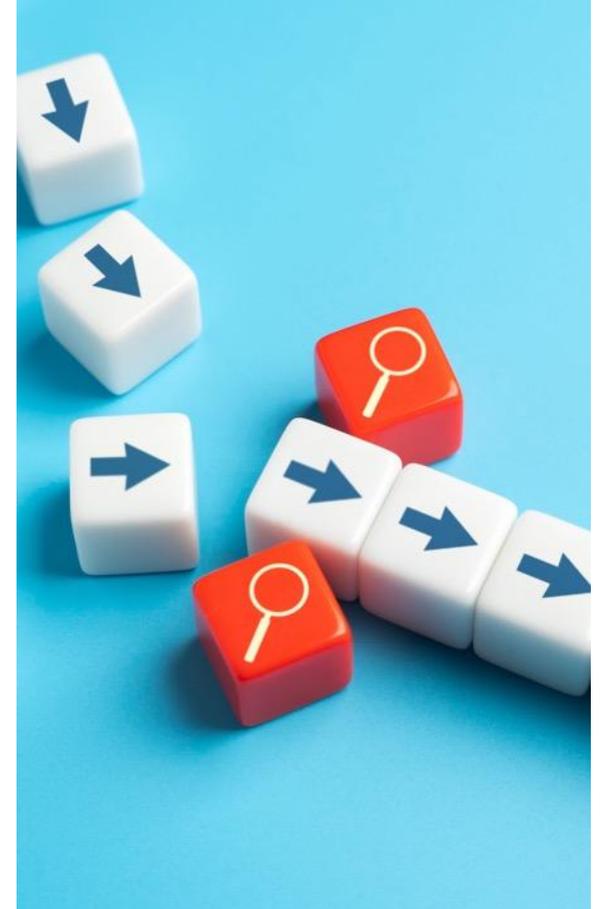
*) The 2024 drafts of the CEN deliverables for plastic packaging can still be purchased through the national standards publishers. The final standards are expected for Q1-Q2/2026 already.

A Clear Expectation of a Strong Influence of Yellow and Red Design Elements



While details of the score calculation are not yet known, avoiding red elements and minimising the number and amount of yellow elements is already a clear direction to follow.

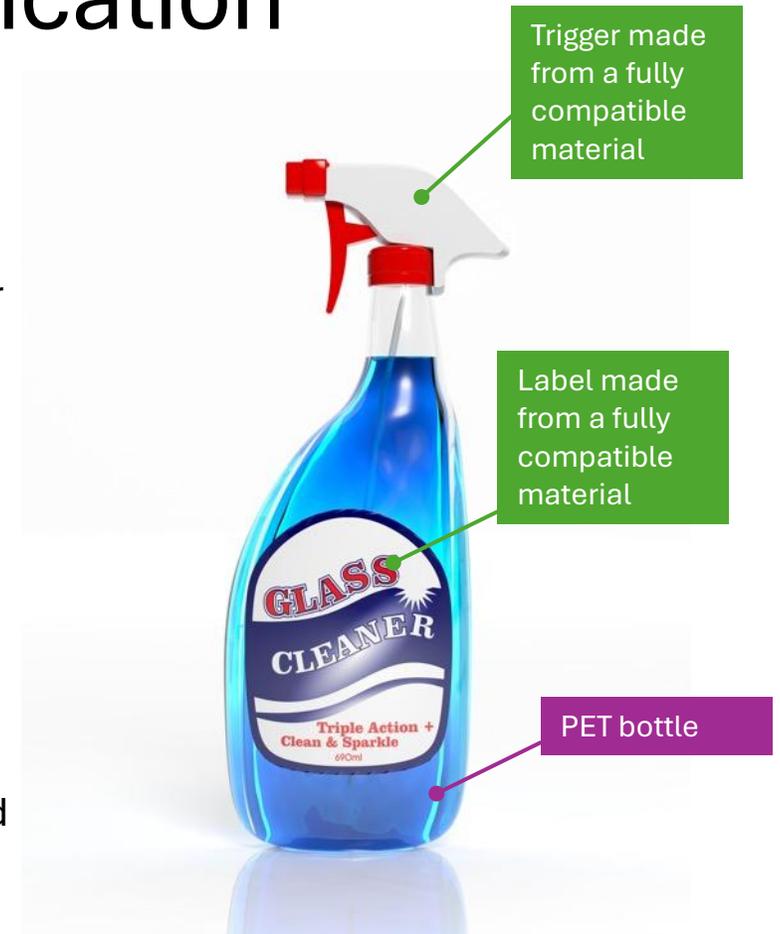
Core Design Principles



Integrated components:

Follow the design criteria's classification

- Packaging unit may contain integrated components made from different material(s) from the main body.
- Depending on their material, integrated components can support, impact or prevent recycling of the entire packaging unit.
- **Integrated components should either**
 - **be compatible with the recycling of the main body's predominant material, or**
 - **be removable before or during the recycling process** (removed components can often be recycled separately).
- Clear design-for-recycling criteria exist for selecting materials for integrated components.
- These criteria are specific to each packaging category / recycling stream and are detailed in the respective design-for-recycling guidelines and upcoming CEN standards.



By choosing a material listed in green for your integrated components, you can already optimise your design.

The 'Monomaterial' Approach:

Not always a preference for integrated components

- Industry guidelines and CEN standards often do not recommend a strict 'monomaterial' approach for integrated components.
- This is intentional, not 'leniency': choosing different materials for the main body and components can improve recyclability and recycled plastic quality.
- Example – PET bottles:
 - Goal: recover high-quality PET from the bottle body
 - Approach: using PE/PP caps and lids that allow for easy removal after shredding, (PE/PP floats, PET sinks in water)



Cap made of PE or PP (floats after shredding, can be recycled separately)

Label made of PE or PP (floats after shredding, can be recycled separately)

PET bottle

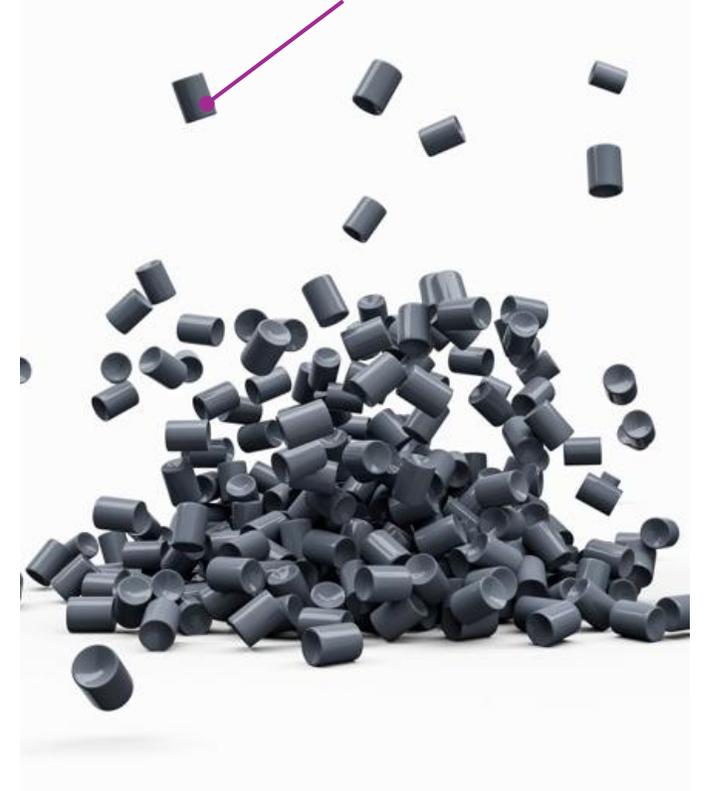
Optimum recyclability is obtained by following design guidance (green/yellow/red), not by rigidly following a monomaterial approach.

Packaging Constituents:

Ensure compatibility or removability

- Constituents of a packaging unit must be sufficiently compatible with recycling or removable before or during the recycling process to protect recycling processes and ensure good recyclate quality.
- Design criteria give guidance which constituents to use or avoid; red or yellow classifications depend on the packaging category-specific criteria and guidelines.
- **Red-listed constituents should be rigorously avoided; alternatives generally exist that are at least yellow-listed, if not green.**
- **If yellow-listed constituents are required, their number and amount should be restricted to the minimum necessary.**

Colour, odour and performance of recycled plastic directly depends on the compatibility of constituents



By choosing constituents listed in green and minimising yellows, you can already optimise your design.

Colouration:

Avoid mass colouration in favour of compatible labels and sleeves

- Mass colouration cannot be removed in most state-of-the-art recycling processes.
- Mass-coloured packaging will impart a colouration onto the recyclate.
- **Where possible, preference is given to natural colour or white pigments and instead, using compatible sleeves and labels for colouration.**



By favouring decorations over mass colouration, you can already optimise your design.

Print:

Avoid bleeding inks

- ‘Bleeding’ of inks are released from the plastic surface and dissolve or disperse into the washing water during recycling.
- Undesirable, due being difficult to remove, risk of re-deposit on plastic flakes (affecting recyclate colour), and water-treatment costs.
- **All design-for-recycling guidelines for plastic packaging emphasise the importance of avoiding inks that bleed.**
- Washable inks (which release from the plastic but can be removed from the water) are not the same as bleeding inks. Their use is still under discussion, particularly for household packaging.



By avoiding bleeding inks, you can help to improve the colour of recycled plastics.

Density:

Observe the material-specific thresholds

- Most plastic-recycling facilities use float/sink separation or centrifuges to remove unwanted materials before recycling.
- Float/sink separation relies on material density: plastic materials being above or below ca. 1 kg/dm^3 . Lower density plastics float in water (e.g., PE, PP) whereas higher density plastics sink in water (e.g., PET).
- **Changing the intrinsic floating/sinking behaviour can lead to recycling losses or contamination with unwanted plastic types and should therefore be avoided.**
- **Details can be found in the respective design guideline.**



When adding pigments to plastics or using foamed plastics, observe established density thresholds.

Design Choices can Influence Optical Sorting of Packaging Waste

- Automated *optical sorting*, especially via near-infrared (NIR), is a key step in waste sorting.
- NIR sorting identifies the predominant material of a packaging unit, which is then sorted into the corresponding stream (e.g., PPWR categories 7–16).
- **Certain design choices – such as full-body sleeves made from a different material than the main body can impact NIR sorting.**
- **Important to ensure sortability. Relevant details and criteria can be found in the packaging category-specific design guidelines.**



When integrating large integrated components made of materials different from the main body, consider sortability.

Minimise the Use of Constituents (e.g., inks, coatings, barriers and adhesives)

- Even when choosing only green-listed integrated components and constituents, there remains additional potential for further optimisation of packaging.
- **By reducing the amounts of inks, coatings, barriers, adhesives and other constituents to what is required for the use case, the chances of achieving a high PPWR recyclability performance score can be optimised.**



Even well-designed designed-for-recycling packaging can be improved further.

Call to Action!

- No need to wait – you can already take confident action on your packaging designs today!
- Contact your suppliers to discuss their understanding of how their materials and products may affect the technical recyclability of the packaging unit.



A Note on the Examples

For each example, the different relevant design elements were carefully reviewed against leading guidelines:

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none">Design elements that are listed in green in COTREP, EN 18120 (draft) and RecyClass design guidance tables	<ul style="list-style-type: none">All other relevant design elements	<ul style="list-style-type: none">Design elements that are listed in red in COTREP, EN 18120 (draft) and RecyClass design guidance tables

NOTE: Each example covers only relevant design elements; additional elements should be checked with guidelines.



Good Design Examples Consumer Packaging



Flexible PE Laundry Detergent Pouch

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> All films made from PE <3 wt% PU / acrylic adhesive <5 wt% of PU ink 	<ul style="list-style-type: none"> Nitrocellulose inks Larger amounts of adhesives and inks 	<ul style="list-style-type: none"> PET / PE film combinations

Good design choices



Conscious use (limited coverage) of PU ink < 5 wt%

PU laminating adhesive < 3 wt%

Both film layers made from PE

PE Pouch for Refills, Liquid Soaps and Detergents



Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> All films made from PE Closures made from PE <3 wt% PU / acrylic adhesive <5 wt% of PU ink 	<ul style="list-style-type: none"> Metallised PE Nitrocellulose inks Larger amounts of adhesives and inks Other closure materials 	<ul style="list-style-type: none"> PET / PE film combinations Aluminium foil barrier

Flexible PE Cheese Packaging

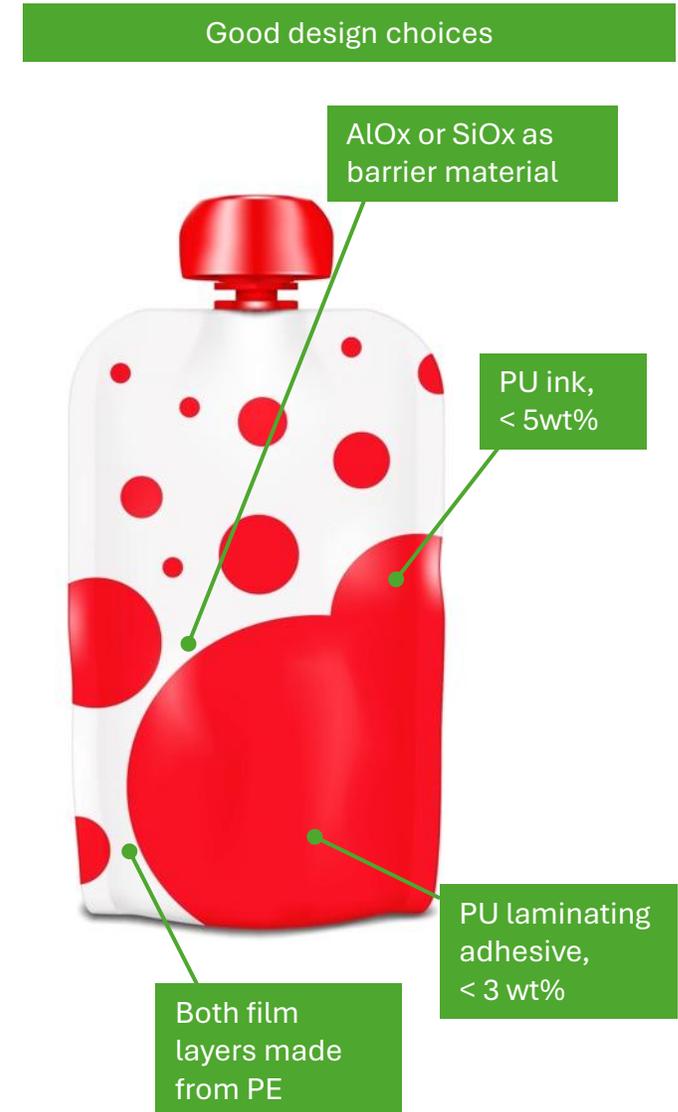
Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> All films made from PE EVOH* up to 5wt%, AlOx, SiOx as barrier < 3 wt% PU / acrylic adhesive < 5 wt% of PU ink 	<ul style="list-style-type: none"> Metallised PE Nitrocellulose inks Larger amounts of EVOH PA barriers Larger amounts of adhesives and inks 	<ul style="list-style-type: none"> PET / PE film combinations Aluminium foil barrier



*) coextruded, with a suitable compatibilising tie layer

Flexible PE Baby Food Packaging

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> • All films made from PE • AlOx, SiOx as barrier • < 3 wt% PU / acrylic adhesive • <5 wt% of PU ink 	<ul style="list-style-type: none"> • Metallised PE • Nitrocellulose inks • Larger amounts of EVOH • PA barriers • Larger amounts of adhesives and inks 	<ul style="list-style-type: none"> • PET / PE film combinations • Aluminium foil barrier



Flexible PP Snack Packaging

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> All films made from PP AlOx, SiOx as barrier layers < 3wt% PU / acrylic adhesives < 5wt% of PU inks 	<ul style="list-style-type: none"> Metallised PP Nitrocellulose ink Larger amounts of adhesives and inks EVOH, PA barriers 	<ul style="list-style-type: none"> PET / PE film combinations Aluminium foil barrier



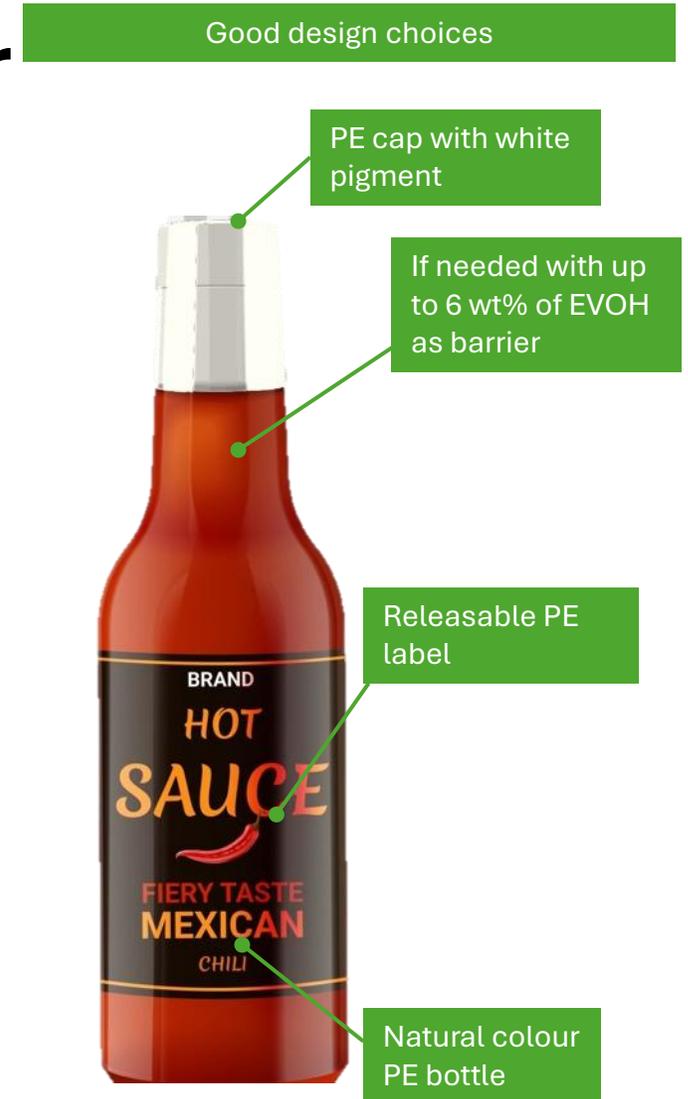
Flexible PP Pet Food Packaging

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> • All films made from PP • AlOx, SiOx as barrier layers • < 3 wt% PU / acrylic adhesives • < 5 wt% of PU inks 	<ul style="list-style-type: none"> • Metallised PP • Nitrocellulose ink • Larger amounts of adhesives and inks • EVOH, PA barriers 	<ul style="list-style-type: none"> • PET / PP film combinations • Aluminium foil barrier



PE Sauce Bottle with EVOH Barrier

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> Bottle and closure made from PE EVOH* as barrier (< 6wt%) Releasable PE labels 	<ul style="list-style-type: none"> Non-releasable labels Releasable PP labels Paper labels Lighter metal closures / closure parts 	<ul style="list-style-type: none"> Heavier metal closures



*) coextruded, with a suitable compatibilising tie layer

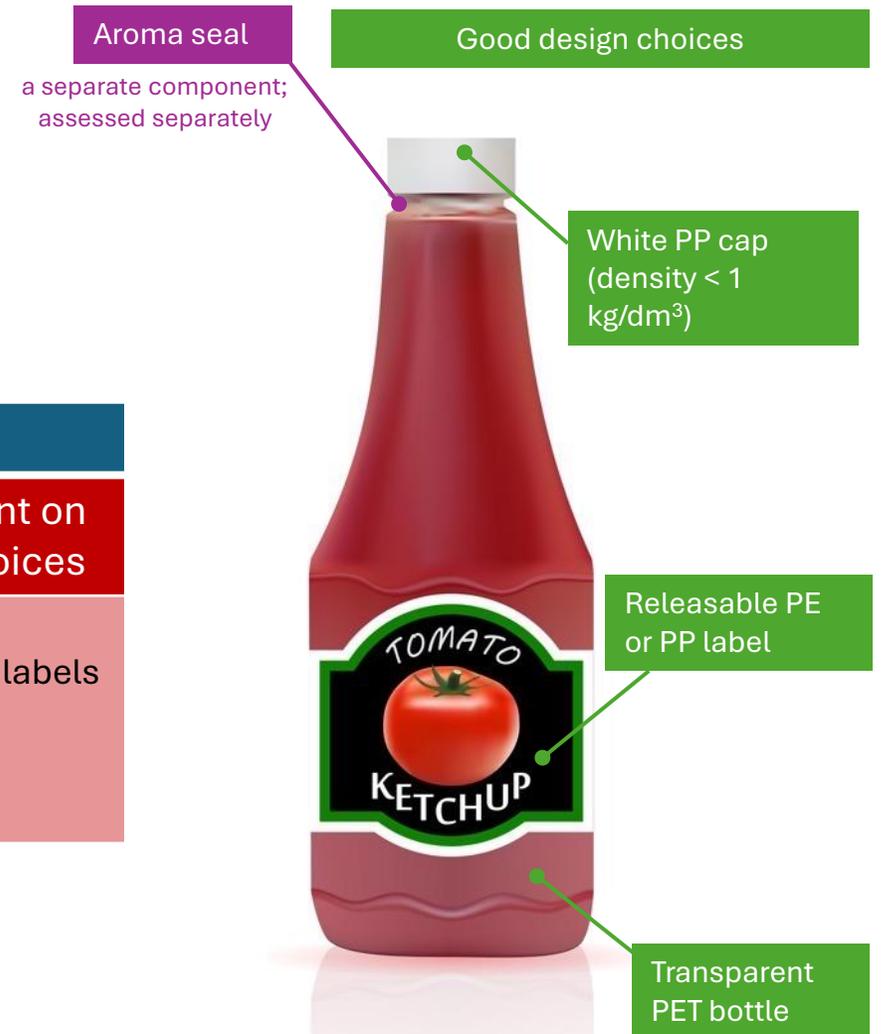
PP Trigger Spray Bottle

Good design choices

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> • Bottle and closure made from PP • Releasable PP label • Metal-free trigger systems 	<ul style="list-style-type: none"> • Limited amounts of metal in triggers • Non-releasable labels 	<ul style="list-style-type: none"> • Larger amounts of metal in triggers



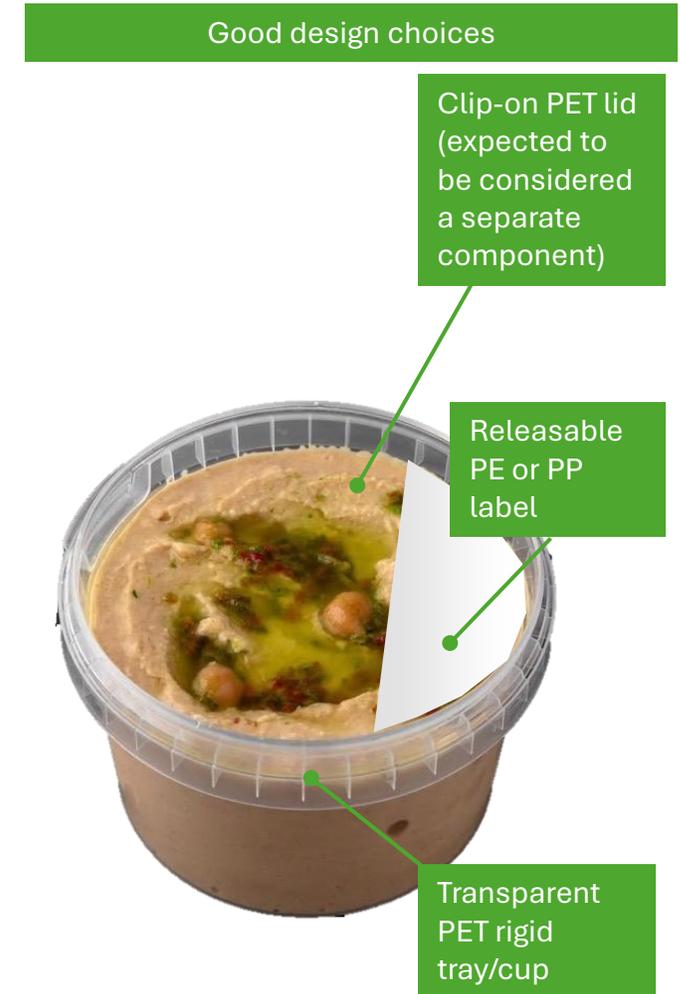
PET Ketchup Bottle with a Sealing Disc



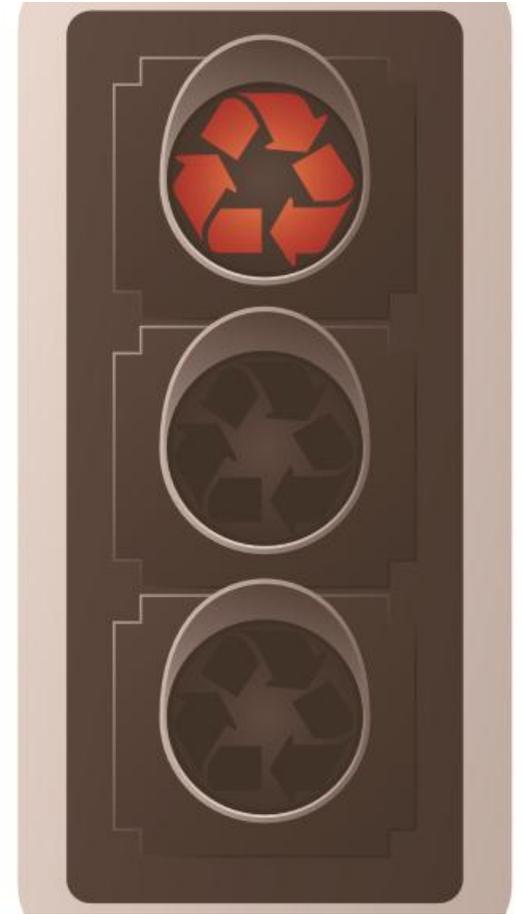
Situation in industry guidelines and CEN draft standards		
<p>Solid agreement on good design choices</p> <ul style="list-style-type: none"> Transparent PET for the bottle body Releasable PE or PP label PE or PP rigid closures (density <math>< 1 \text{ kg/dm}^3</math>) 	<p>No full consensus / still under discussion</p> <ul style="list-style-type: none"> Paper labels 	<p>Solid agreement on bad design choices</p> <ul style="list-style-type: none"> Metal closures Non-releasable labels

Transparent, Natural-Colour PET Rigid Packaging with Releasable Label

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none"> monolayer monomaterial PET for cup and rigid lid Releasable PE or PP label 	<ul style="list-style-type: none"> PET/PE laminated or coextruded material for cup and flexible lid Paper labels 	



Designs to Avoid Consumer Packaging



Avoid Label or Sleeve Materials on PET Bottles with a density $> 1 \text{ kg/dm}^3$

Situation in industry guidelines and CEN draft standards	
Solid agreement on bad design choices	Alternatives
Labels and sleeves with density $> 1 \text{ kg/dm}^3$ on rigid PET packaging	Sleeve materials with a density $< 1 \text{ kg/dm}^3$ (e.g., PE, PP) with ensured sortability, i.e., partial coverage



Avoid Metal Components

(e.g., closures)

Situation in industry guidelines and CEN draft standards	
Solid agreement on bad design choices	Alternatives
Metal closures of substantial weight in plastic packaging	Closures made from plastic materials preferred by design guidelines (green)



Avoid PET/PE and PET/PP Laminates in Flexible Packaging

Situation in industry guidelines and CEN draft standards	
Solid agreement on bad design choices	Alternatives
Combinations of PE or PP films with PET films	Use MDOPE, BOPE or BOPP films instead of PET film



Avoid the Lamination of Paper to PE or PP Flexible Packaging

Situation in industry guidelines and CEN draft standards	
Solid agreement on bad design choices	Alternatives
Paper layers in predominantly PE or PP flexible packaging	Use only plastics or paper for all flexible plastic packaging layers



PE flexible packaging with a layer of paper on the outside for optical effect

Choose as design that uses only PE films or only PP films (or only paper layers).

Avoid Mass Colouration with Carbon Black

Situation in industry guidelines and CEN draft standards	
Solid agreement on bad design choices	Alternatives
Carbon black mass colouration	Non-carbon black pigments and dyes



Carbon black mass colouration can prevent correct sorting

Choose a non-carbon black pigment instead

Avoid All-Over Print with Carbon Black-Based Inks

Situation in industry guidelines and CEN draft standards	
Identified concerns	Alternatives
Full face printing with carbon-black containing inks	Limit coverage of carbon-black based print (small features, e.g., text, line graphics, bar codes, smaller graphics not an issue)



Large area carbon black print can prevent correct sorting

Choose a non-carbon black pigment or reduce amount of black surface

Exposed / Visible Metallisation

Situation in industry guidelines and CEN draft standards	
Identified concerns	Alternatives
Leaving large parts of the surface exposed in the case of metallised films	Cover metallisation with an opaque film or print or choose an alternative barrier material



Large area of visible metallisation can prevent correct sorting

Cover the metallisation with an opaque or printed plastic film layer

Avoid Aluminium Foil in Flexible Packaging unless aluminium is the predominant material

Situation in industry guidelines and CEN draft standards	
Solid agreement on bad design choices	Alternatives
Aluminium foil in predominantly PE or PP flexible packaging	Use alternative barriers such as AlOx, SiOx



Aluminium foil as a barrier

Choose alternative barrier materials, e.g., AlOx, SiOx

Plastic multilayer pouch

*) Aluminium foil refers to the thicker actual foils made of aluminium and should not be confused with vacuum metallisation, which is an extremely thin coating of a plastic film with aluminium. The two materials behave significantly differently in sorting and recycling.

**) Correct sortability needs to be confirmed.

Good Design Examples

Industrial / Commercial Packaging



Natural Colour PE Stretch Film / Pallet Hoods

Situation in industry guidelines and CEN draft standards		
Solid agreement on good design choices	No full consensus / still under discussion	Solid agreement on bad design choices
<ul style="list-style-type: none">• Single PE films• Minimal print or laser marking• Natural colour / white PE labels with releasable adhesive	<ul style="list-style-type: none">• Paper labels• Laminated multilayer films• Larger amount of print	

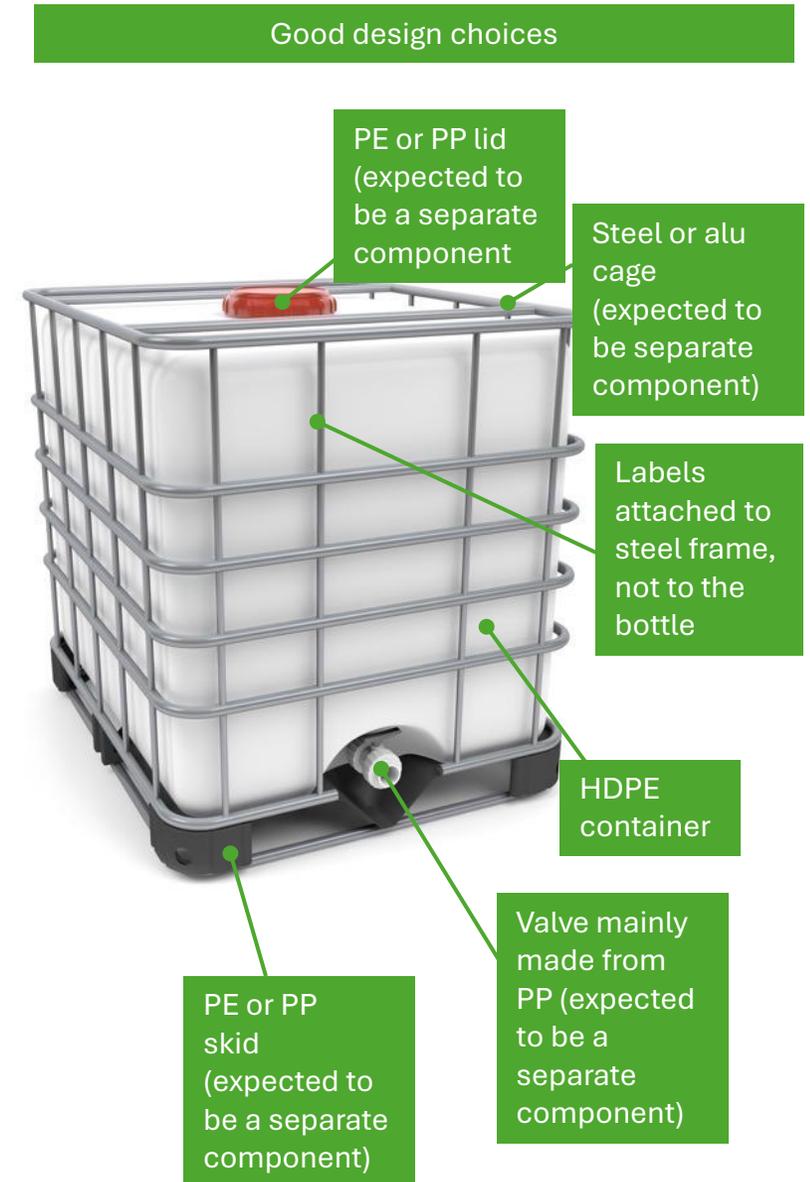


Intermediate Bulk Containers (IBC)

- IBC with a PE container are often utilised in organised reuse/reconditioning systems, meaning they are used multiple times before recycling.
- When reconditioning is no longer possible or a new bottle is required, the steel cage and skid can still be reused.
- For recycling, IBCs are selectively collected and manually separated into bottle, lid, valve, cage and skid; under PPWR, these are expected to be considered separate components.
- All IBC parts can already be recycled today, and in some cases, recycled IBC material is already used in new IBCs.

Situation in industry guidelines and CEN draft standards

Limited industry guidance; CEN standards expected to become the accepted guidance.

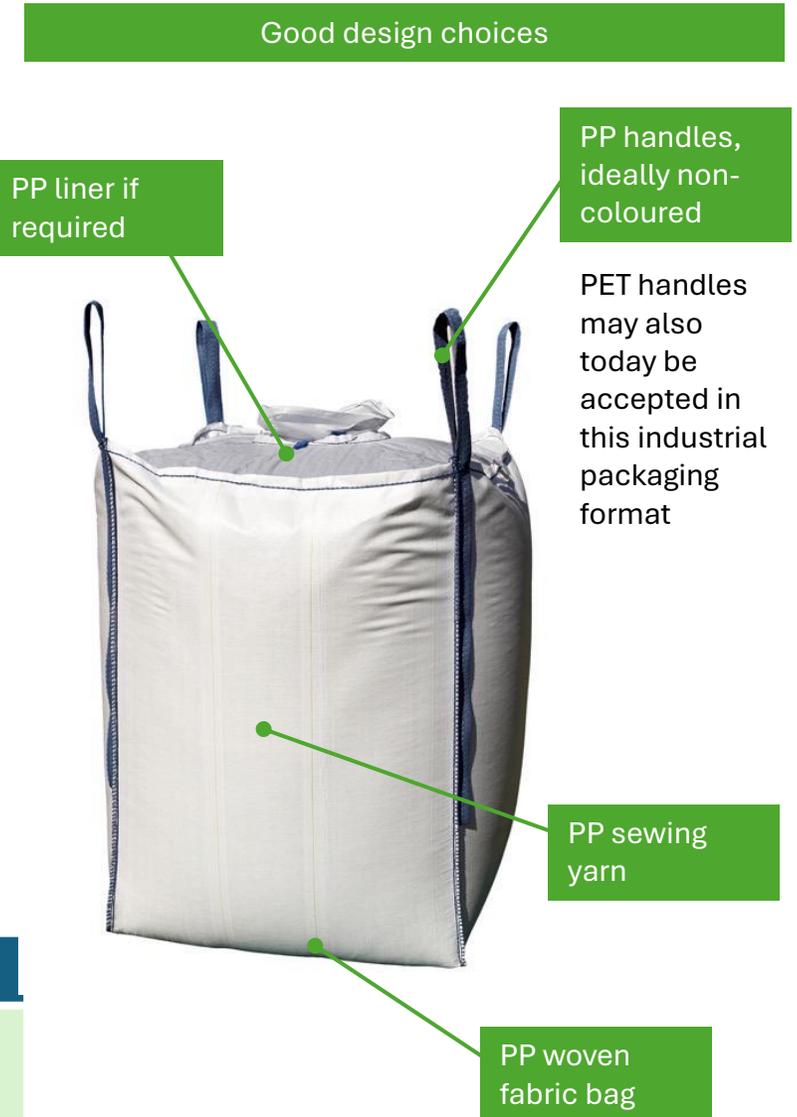


Flexible Intermediate Bulk Containers / 'Big Bags'

- Flexible intermediate bulk containers (fIBC) are today already often utilised in organised reuse/reconditioning systems, i.e., used multiple times before they are sent to recycling.
- The recycling of fIBC made from PP is already well-established today.
- By choosing the main fabric, the sewing thread and the liner to all be made from PP, design for recycling can be optimised.
- If a coating is used on the fabric, its compatibility with recycling needs to be considered.

Situation in industry guidelines and CEN draft standards

Limited industry guidance; CEN standards expected to become the accepted guidance.



HDPE Drums

- HDPE drums are selectively collected by specialised companies
- Clamping ring and lid are manually separated; under PPWR, these parts are therefore expected to be considered separate components
- Because of selective collection, mass colouration of the drum is not a concern
- Due to manual separation, black lids with carbon black is not a sortability concern.
- All parts can already be successfully recycled, including in some cases the use of recycled HDPE drum material in new drums.

Situation in industry guidelines and CEN draft standards

Limited industry guidance; CEN standards expected to become the accepted guidance.



Strapping

- Generally, a simple design without many design elements
- Key choice is the material of the strap
- Strapping made of PET and PP is already collected and recycled today
- Preferring these straps over composite straps (made of PET fibre embedded in a matrix of another plastic) help optimise design for recycling



Situation in industry guidelines and CEN draft standards

Limited industry guidance; CEN standards expected to become the accepted guidance.

Designs to Avoid

Industrial / Commercial Packaging



Avoid Paper Labels and Document Pouches on Wrapping Film and Shrink Hoods

Situation in industry guidelines and CEN draft standards	
Identified concerns	Alternatives
Paper labels, especially those that are not water releasable	PE labels, with water-releasable adhesive

