



Regulatory approach on recycling of food contact materials

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Background – Legislation on Recycled Plastic FCM

Framework Regulation on Food Contact Materials ('FCM')

- **FCM shall be safe**
(Regulation (EC) No 1935/2004)

Regulation on Recycled Plastics (Regulation (EC) No 282/2008)

- Ensures that recycled plastics are safe
- Focus on mechanical recycling, closed loop
- Chemical recycling + Functional barriers out of scope

Regulation on (new) plastic FCM (Regulation (EU) no 10/2011)

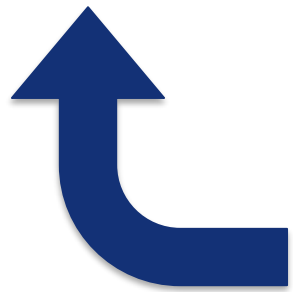
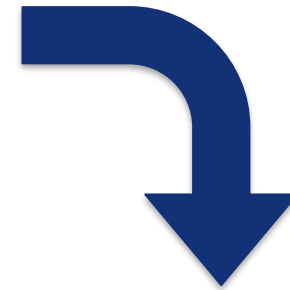
- Main FCM Regulation
- Recycled plastics need to comply with this Regulation

Regulation on good manufacturing practices (Regulation (EU) No 2023/2006)

- Important for quality control

Recycling policy is required for establishing trust

*Can we safely invest in plastic
Recycling? (recycling industry)*



*Can we trust Recycled Plastics?
(consumers and food business operators)*

Incidental Contamination:

everything which gets onto/into the plastic during manufacturing, use and waste collection

specks, greying, yellowing, clouding → *visible*

smell, taste → *perceivable*

(harmful) impurities → *measurable*

genotoxic impurities → ***undetectable***

Reducing Incidental Contamination

Prevention → *closed loop recycling*

Reduction → *proper collection and sorting*

Cleaning → *decontamination process*

Reduce migration → *(e.g.) functional barriers*

Mechanical PET recycling

Bulk of the applications for authorisation

- **>130 individual processes assessed by EFSA**

Decontamination process

- **its efficiency was scientifically assessed**
- **subject to assumptions**

Decontamination must be properly operated

- **input materials**
- **operating conditions**
- **output materials**

Quality control and enforcement



Planning

1: Amendment of the recycling Regulation – Phase 1: PET only

- **appropriate transition approach**
- **clarification of role of authorisation holder and recyclers**
- **obligations of authorisation holder and recyclers**
- **compliance monitoring summary sheet**
- **definition of non-compliances**
- **procedures for enforcement**

2: Preparation of authorisation Decisions for mechanical PET recycling

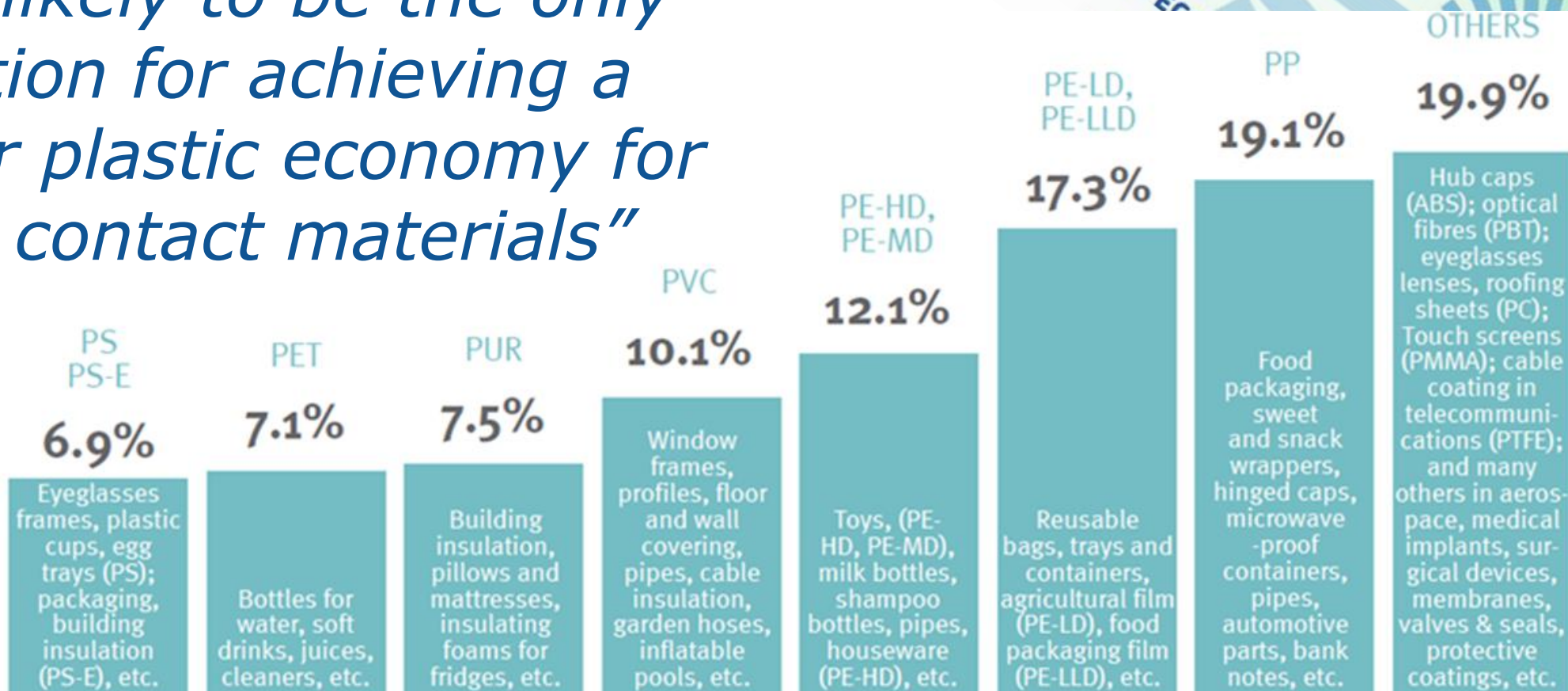
- **on the basis of the amended Regulation**
 - **130 Decisions**

3: Phase 2: amendments to facilitate other processes

- **closed-loop + HDPE**

Mechanically recycled PET:

"not likely to be the only solution for achieving a circular plastic economy for food contact materials"



Just Sorting

...

Mechanical Recycling

...

Super Critical Extraction

...

Dissolution

...

Hydrolysis

...

Feed Stock Recycling

Chemical recycling

CEFIC: 'next big thing'

- **but presently out of scope**
- **subject to Regulation (EU) no 10/2011 – new plastics**

Missing:

- **definition**
- **criteria for ensuring safety**

Approach being considered

- **all chemical recycling processes in scope**
- **authorisation**
- **except for feed stock recycling**

Chemical recycling and Regulation (EU)10/2011

Regulation 10/2011

- **FCM plastics can only be manufactured using authorised starting substances**
- **Risk assessment of NIAS – can genotoxic contaminants be ruled out?**

Only feedstock recycling seems possible

- **pyrolysis which produces a Naphtha-like mixture**
- **added to regular Naphtha to produce new monomers**
- **organic contaminants unlikely to survive these steps**

Other forms of chemical recycling would appear difficult

- **gap between R 282/2008 and R 10/2011**

current situation regarding other recycling processes

Mechanical Recycling of HDPE

- **3 applications under the present Regulation**
→ **Decision probably delayed until general approach for the non-PET is clear**

Closed-Loop recycling

- **6+ applications under the present Regulation**
→ **Also likely delayed, focus shift to food business operators**

Chemical recycling

- presently out of scope, **likely brought into scope + definition**

Recycling behind a functional barrier

- **'A-B-A' structure**
- presently out of scope, **but safety considerations, may be brought into scope**
- **genotoxic contaminants, thermoforming, recycling**

Unused offcuts and scraps

- **Clarification needed → may be brought into scope**

New processes and authorisation

The principle would become:

If,

- **the potential for relevant incidental contamination is clearly excluded**

or,

- **it is clear that incidental contamination cannot survive the process**

than no individual authorisation needed

Potential two step scientific approach for Non-PET



Consortium(?) would apply to establish scientific evaluation criteria for a new type of recycling process

1. EFSA establishes scientific evaluation criteria (as done for PET in 2011)

Individual applicants apply for authorisation based on established criteria

2. EFSA publishes opinion on the safety of the process

EFSA may decide no individual Authorisations may be necessary

- **for a kind of process**
- **step 2 and 3 omitted**

Procedure defined in legislation to ensure legal certainty

Scientific information

To determine evaluation criteria:

- **It is EFSA's role to determine what scientific information will be needed in first step of 2 step approach**

However:

- **Characterisation of background contamination**
- **Sorting Efficiency**
- **Cleaning efficiency (e.g. challenge test)**
- **Final use of the material**

Consider EFSA's 2011 opinion on PET criteria

Phase 2 – second ‘amendment’ of R 282/2008

All recycled plastics in scope

Processes authorised via 2 step approach

Some types of processes would not require authorisation:

- **off-cuts / scraps**
- **closed-loop (?)**
- **functional barriers (?)**
- **feedstock recycling**
- **those processes for which EFSA concludes in step 1 individual authorisation is unnecessary**

These processes may then be used subject to process/material specific rules, specified in Annex

Time-line

Phase 1 to be concluded by summer 2020

- **first set of amendments**
- **authorisation Decisions**

Phase 2 thereafter – discussions have already started

- **all processes other than mechanical recycling of PET**

Wrap-Up

Can we safely invest in plastic Recycling?

- **Commission is working to ensure legal certainty**
- **authorizations for mechanically recycled PET are underway**
- **approach for other processes to be clarified in 2021**

Can we trust Recycled Plastics for food contact?

- **mechanical PET recycling is capable of producing clean+safe recycled Pet**
- **during 2021 obligations particular on quality control will enter into force**
- **other plastics to follow**
- **presently, it is the obligation of business operators to ensure the safety of FCM**

Thank you for you attention

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