EU approach to product design

Overview of selected legislative proposals

INC-3 webinar: Designing and producing plastic products for circularity

Why is the EU acting?

- "take-make-dispose" model

- The circular material use rate has been growing, but progress remains very slow (**8.2% in 2004 to 11.8% in 2019**)

- Demand for recycled materials remains low: only **9.5%** (0.7 billion tonnes) of materials processed from 2010-2018 were from recycled materials

- The share of market demand met by secondary materials differs starkly: 50% or over for lead and copper, while for **plastics** it is only **6%**

- **70% increase in waste** generation is foreseen by 2050

- Up to **80%** of a product's environmental impacts can be determined at the **design phase!**

European Commission
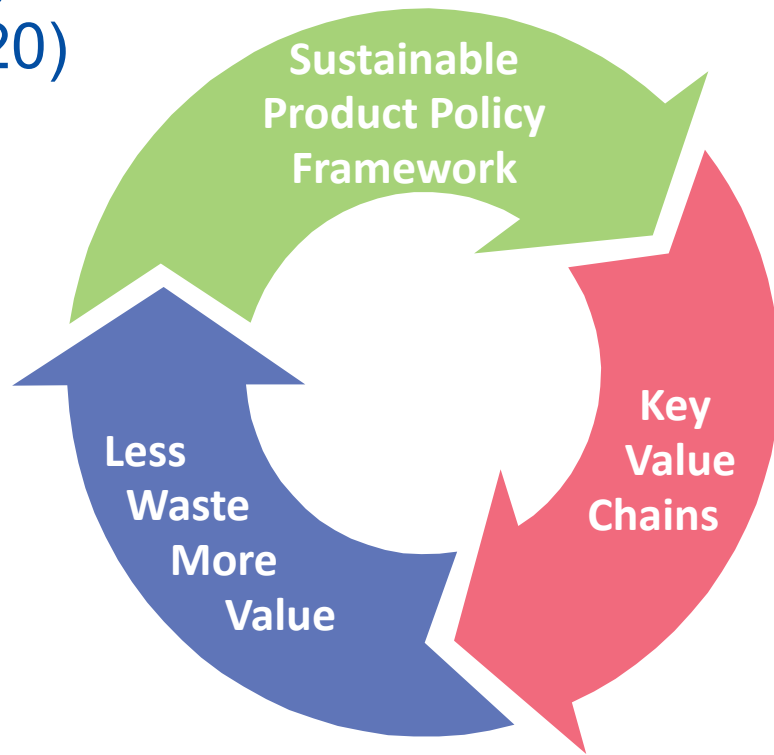
What is the EU doing?

(I) The **European Green Deal** (2019)

Announced a "**Circular Economy Action Plan**" that would include a "sustainable products' policy to support the circular design of all products."

CLIMATE PACT AND CLIMATE LAW

PROMOTING CLEAN ENERGY

INVESTING IN MORE SUSTAINABLE, SMARTER MOBILITY

PROTECTING NATURE

MOBILISING INDUSTRY FOR A CLEAN AND CIRCULAR ECONOMY

FROM FARM TO FORK

The European Green Deal

ELIMINATING POLLUTION

LEADING THE GREEN CHANGE GLOBALLY

ENSURING A JUST TRANSITION FOR ALL

MAKING HOMES ENERGY EFFICIENT

FINANCING GREEN PROJECTS

European Commission

What is the EU doing?

The **Circular Economy Action Plan** (2020)

Sustainable Product Policy Framework

Key Value Chains

Less Waste More Value

35 actions

Make sustainable products the norm in the EU
Empower consumers and public buyers
Sustainable production processes

Electronics and ICT
Batteries and vehicles
Packaging
Plastics
Textiles
Construction and buildings
Food, water and nutrients

Reduce Waste
Reduce Waste Exports
Boost market for high quality and safe secondary raw materials

European Commission

Overview of selected legislative proposals

- Proposal for a Regulation on ecodesign for sustainable products (ESPR) *

- Proposal for a Regulation on packaging and packaging waste (PPWR) *

* Legislative proposals made by the Commission, currently undergoing ordinary legislative procedure where they are subject to amendments by the Council of the EU and the European Parliament.

European Commission

ESPR - Overview

- Objective: to reduce negative environmental impacts of products along their lifecycle and improve the availability of information on products characteristics

- Scope: ecodesign requirements on all physical goods placed on the market or put into service, including components and intermediate products (exemptions!)

ESPR - How will it work?

Key features of Ecodesign Directive approach maintained

Framework legislation
It does not set specific measures, but enables their adoption at a later stage

Product-specific measures
based on detailed impact assessment & stakeholder consultation

Regularly updated **multiannual working plans** setting out priorities

European Commission

Key product aspects under ESPR

- Durability

- Reliability

- Reusability

- Upgradability

- Reparability

- Possibility of maintenance and refurbishment

- Presence of substances of concern

- Energy use or energy efficiency

- Resource use or resource efficiency

- Recycled content

- Possibility of remanufacturing and recycling

- Possibility of recovery of materials

- Environmental impacts, including carbon and environmental footprint

- Expected generation of waste materials

European Commission

Digital Product Passport (DPP) - the concept

- Will allow access to **product information** throughout the product life cycle, on a **need-to-know** basis

- Should contain, as relevant to the product:

  - For consumers: **data** on e.g. environmental impact, circularity, substances of concern etc.

  - For value retention: information to **facilitate for reuse, remanufacturing or recycling**

  - For authorities: **compliance information** (e.g. technical documentation, DoC)

9

European Commission

Public Consultation on new product priorities under ESPR (Jan-May 2023)

- Based on the Commission's preliminary identification of a number of **products** and **horizontal measures** that <u>may</u> be suitable for first action under the ESPR:

  - <u>End-use products</u>: **Textiles and Footwear; Furniture; Ceramic Products; Tyres; Detergents; Bed Mattresses; Lubricants; Paints and Varnishes; Cosmetic Products; Toys; Fishing Nets and Gears; Absorbent Hygiene Products**

  - <u>Intermediate products</u>: **Iron and Steel; Non-Ferrous Metals; Aluminium; Chemicals; <u>Plastic and Polymers</u>; Paper, Pulp Paper and Boards; Glass**

  - <u>Horizontal measures</u>: **Durability; Recyclability; Post-Consumer Recycled Content**

- Analysis of feedback ongoing: results will feed into preparation of first ESPR working plan

European Commission

Expected outcomes of ESPR

Environment

- Help achieve EU's environmental goals and SDGs
- Target product-related environmental impacts

Consumers

- Improved product performance and longer lifetimes
- More informed decision making
- Financial savings (longer life and less energy)

Supply chain actors

- Reduced material costs
- Reputational benefits
- Increased transparency across supply chain

European Commission

PPWR - Overview

- Packaging waste generation has been **increasing** in the EU in absolute terms and on a per capita basis and trends indicate a further steep decline in re-use and refill of packaging amplified by increased on-the-go consumption and e-commerce.

- **40 % of plastics** and 50 % of paper used in the EU is destined for packaging and accounts for **36 % of municipal solid waste**.

- **Objective:** reduce the negative environmental impacts of packaging and packaging waste, while improving the functioning of the internal market.

- **Scope:** all packaging, regardless of the material used, and to all packaging waste, whether such waste is used in or originates from industry, other manufacturing, retail or distribution, offices, services or households.

European Commission

PPWR – key measures

- **Reduction target on MS for reduction of packaging waste by 5% by 2030, 10% by 2035 and 15% by 2040 compared to 2018** complemented by EU harmonised supporting measures on:

waste prevention	reuse
• **Minimisation** of and bans on excessive packaging (Art. 9) • Bans on **unnecessary** packaging (Art. 22-Annex V) • **Void space** in e-commerce and transport packaging (Art. 21)	• Establishment of efficient **reuse and refill systems** (Art. 10 et al) • Sector specific **reuse targets** on economic operators (Art. 26)

European Commission

PPWR- Full recyclability of all packaging by 2030

- 2030: **all packaging** items have to be **recyclable**
- To that end, it will have to meet the **design for recycling criteria** (by 2030) **and be recyclable at scale** (by 2035)
- DfR criteria consider separability, quality of recyclates, established collection, sorting and recycling processes (incl. their efficiency and expected evolution)
- Modulation of **EPR** fees based on harmonized **recyclability** performance grade and, for plastic, on recycled content

Performance Grade	Score of compliance with DfR criteria of a unit of packaging *
A	95%
B	90%
C	80%
D	70%
E	Less than 70%

* in terms of weight of the unit of packaging

European Commission

PPWR - Packaging materials

Glass		1 Glass		2 Composite	
Fibre		3 Paper/cardboard		4 Composite	
Metal	Steel	5 Steel		6 Composite	
	Aluminium	7 Rigid	8 Flexible		9 Composite
Plastic	PET	10 Bottles clear/blue 12 Rigid clear		11 Bottles coloured 13 Flexible	
	PE	14 HDPE rigid clear 16 PE flexible clear		15 HDPE rigid coloured 17 PE flexible coloured	
	PP	18 Rigid clear 20 Flexible clear		19 Rigid coloured 21 Flexible coloured	
	PO	22 Crates and pallets			
	PS	23 PS	24 EPS		25 XPS
	Other plastics	26 Rigid		27 Flexible	
Wood/cork		28 Wood/cork			
Textile		29 Textile			
Ceramics/porcelain		30 Ceramics/porcelain			

European Commission

PPWR- Recycled content targets for plastic packaging

- **Minimum inclusion rates** of **recycled content in plastic packaging** (for 2030 and 2040) imposed **at product level** (market access requirement), distinguishing beverage bottles / contact sensitive / non-contact sensitive

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%

- **Exemptions** for packaging for medicinal products, medical devices and compostable packaging

- EU harmonised **methodology for RC calculation** (by 2027) to avoid green washing

- Commission empowered to review the targets for specific packaging types

=> 2030 targets save app. **3 mio t fossil fuel** for plastic production

European Commission

PPWR- Other measures

- Requirements for reusable packaging

- Reuse/refill targets on economic operators

- Compostable plastic packaging

- Labelling (harmonisation)

- EPR (harmonisation)

- Deposit Return Systems (obligatory for plastic bottles and cans)

- Waste collection

- Recycling targets

…

European Commission

Thank you

European Commission