WEBINARES **2025**

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Waste as a Resource: A Pillar of the Circular Economy

Why is the EU Circular Economy Action Plan off-track and how can it be reinvigorated?

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Content of presentation

- Setting the scene
- The EU efforts so far
- Why so little progress?
- Towards the new Circular Economy act
- Conclusions

Setting the scene

- Major shifting of **EU political priorities** since early 2023
- The EU **drivers** of circular economy are now the industrial competitiveness and decarbonization (the Clean Industrial Deal) and economic security (diversification of trade deals and trade defense), in a global context of **tense critical resource accessibility**
- Formerly the drivers were: climate change mitigation, biodiversity and pollution (the European Grean Deal)
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The EU efforts so far

First Action Plan (2015) with 54 measures covering the entire product life cycle

- Key results:
  - Adoption of revised waste legislation (2018) with higher recycling targets for municipal waste (55% by 2025, 60% by 2030, 65% by 2035)
  - Stronger targets for packaging waste recycling (65% by 2025, 70% by 2030).
  - Measures against food waste, including a common EU methodology to measure it
  - Kick to markets for secondary raw materials (e.g., plastics, fertilizers).
  - Stimulated innovation and funding for circular projects through Horizon 2020
- All 54 actions were delivered, but the European Court of Auditors noted that **member states' progress was slow** and **monitoring frameworks were weak**

The EU efforts so far

Second Action Plan (2020) with 35 measures focusing on sustainable product design, consumer empowerment, and sector-specific strategies

- **Non-binding target** of doubling the Circular Material Use Rate (CMUR) from 2020 (11.7%) to 2030
- CMUR was at 12.2% in 2024 (10.7% in 2010)

- Key results:
  - **Sustainable Products Initiative (2022)**: New Ecodesign rules requiring durability, repairability, recyclability, and digital product passports

The EU efforts so far

Second Action Plan (2020)

- **Sectoral strategies**:
  - Electronics: “Right to repair” measures
  - Textiles: EU Strategy for Sustainable and Circular Textiles (2022)
  - Batteries: New regulation ensuring recyclability and responsible sourcing
  - Packaging: Proposal for mandatory recycled content and reduction of single-use plastics
- **Consumer empowerment**: Rules against greenwashing and stronger rights to repair
- The European **Court of Auditors** (2023) highlighted that some measures are still undelivered and that despite stronger legislation, the **transition remains slow and uneven across EU member states**

Overall assessment of the two Action Plans

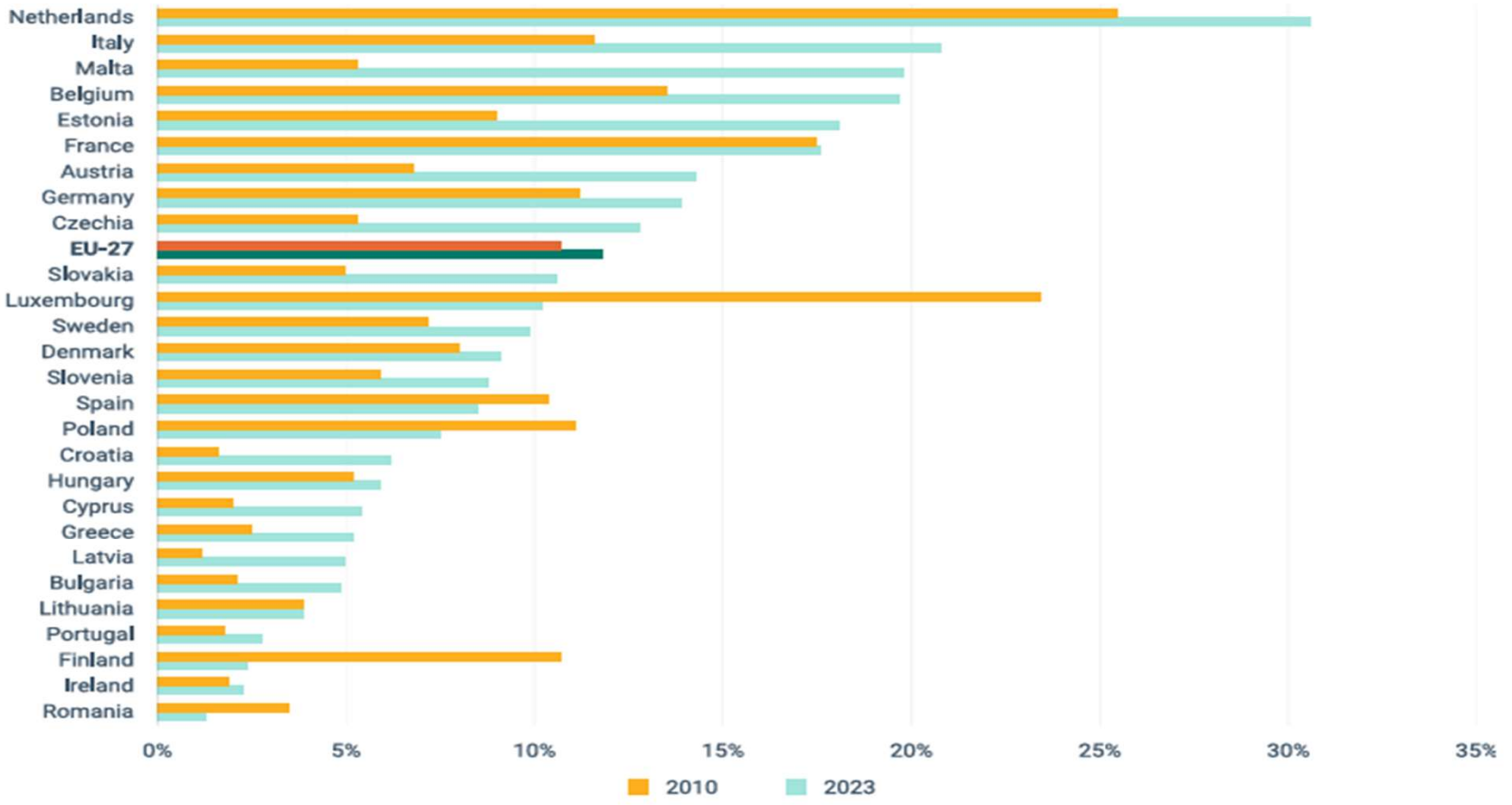
➢ **Successes:**

- Comprehensive legislative framework now in place
- Clear recycling and waste reduction targets
- Integration of circularity into product design and consumer rights

➢ **Challenges:**

- Slow uptake by EU member states
- Monitoring and enforcement remain weak
- Circular economy still accounts for only a small share of EU material use (slow progression of CMUR)

CMUR in the EU in 2010 & 2023



CMUR progress

- CMURs ranging from 30.6% (in NL) to 1.3% (in RO) in 2023
- Reflects significant **structural difference** in countries' recycling capacities and in their levels of material consumption
- The largest absolute CMUR increases (more than five percentage points) were seen in Malta, Italy, Estonia, Austria, Czechia, Belgium and Slovakia
- However, significant decreases in CMURs were seen in Finland, Romania, Luxembourg and Poland

Why so little progess?

1. Finland

- **CMUR declined toward 2020** as material consumption outpaced recycling
- Finland's economy is resource-intensive, with strong forestry, mining, and construction sectors, which imply large flows of virgin materials' consumption
- Most recycled flows in Finland come from **non-metallic minerals (construction waste)** and **biomass (forestry residues)** which fluctuate with economic cycles; construction booms increase demand for virgin materials faster than recycling can supply

Why so little progess?

2. The Netherlands

- Has one of the **most advanced waste management and recycling infrastructures** in Europe; large volumes of construction and demolition waste, metals, and biomass are systematically collected and reintroduced into the economy
- The Dutch **construction sector** recycles a significant share of non-metallic minerals (e.g., concrete, bricks), contributing heavily to the CMUR
- **Dutch industries are known for reusing by-products and waste streams**: e.g. food waste is repurposed as animal feed, and industrial residues are used in energy production or as raw materials
- Unlike Finland (where recyclables are often exported), **NL reuses a large share of its recycled materials domestically**

Why so little progess?

3. Portugal

- **High reliance on primary raw materials** (construction, mining, and agriculture) hence a large consumption of virgin materials and domestic material consumption
- **Limited recycling infrastructure:** Compared to countries like NL or BE, PT has less developed systems for collecting and reintroducing SRMs into production
- **Export of recyclable waste:** Some recyclable materials are exported rather than reused domestically
- **Policy and investment gaps:** Circular economy strategies were introduced later and, for long, recycling policies focused more on **municipal waste** management than on industrial symbiosis or construction material recovery

Why so little progess at EU level?

- The CMUR increased for **biomass, metals and fossil-based materials** between 2010 and 2023: e.g. 25% for metal ores (technically easier and more economical to recycle) in 2023
- The CMUR of **non-metallic minerals** has decreased since 2010 and they account for > 50% of total material consumption in the EU
- To do:
  - Reducing the use of virgin non-metallic minerals and metals
  - Reducing the footprint of material extraction and biomass production
- **But it is also necessary to shift emphasis from increasing recycling to reducing future material demand…**

Material demand at stake

Current EU consumption patterns remain unsustainable

- Since 2010, the EU material footprint has remained stable (15 tonnes per person in 2010 versus 14.1 tonnes in 2024)
- EU consumption is **above the global average** and considered **environmentally unsustainable** (contributing to severe environmental impacts around the globe, linked to climate change, biodiversity loss and pollution)
- Demand for **electrical and electronic equipment (EEE)** and **critical raw materials** will continue to rise due to digitalization & low-carbon transition, plus new defense needs
- Reducing EU consumption will depend heavily on our capacity to boost **circular business models**, **eco-design**, and **reuse/recycling infrastructure**

Why so little progess at EU level?

The 2024 monitoring report of the **European Environment Agency (EEA)** on progress towards the 8th Environmental Action Programme (EAP) objectives found that the EU is:

- "likely off track" to achieve its circular economy targets (to significantly decrease the EU's material footprint, and to significantly reduce the total amount of waste generated by 2030)
- "off track" to achieve its goal to double the CMUR, and to significantly decrease the EU's consumption footprint (i.e. the environmental impact of consumption – it increased by 6% from 2010 to 2023)

Towards the new Circular Economy Act

- The 2024 **EEA circular economy outlook report** argued that circularity policies should **become more binding and target oriented**, possibly including **resource use or material footprint targets**
- The 2024 **Council of the EU's conclusions** on the mid-term review of the 8th EAP suggest the EC should assess the potential for "**ambitious and economically feasible science-based targets** to keep material and consumption footprint within the planetary boundaries"
- The **Draghi's competitiveness and Letta's single market reports** respectively highlighted the need for "**a true Single Market for waste and circularity**" and a "**Circular Single Market for materials, products and services**"

Towards the new Circular Economy Act

The Clean Industrial Deal (CID) (Feb 2025) aims to **align Europe's industrial competitiveness with deep decarbonisation**, ensuring industries thrive while cutting emissions, through:

- reducing energy prices
- boosting demand for clean products
- reviewing the EU's public procurement framework to introduce sustainability criteria for strategic sectors
- adopting a **new Circular Economy Act** by 2026

Towards the new Circular Economy Act

The Clean Industrial Deal (CID) stresses that circularity is currently hampered by the **lack of scale** and **of a single market for waste, secondary raw materials and reusable materials**, as well as a lack of lead markets for those materials

- Call for Evidence for an Impact Assessment
- Public consultation is now over (from 1st August to 6 November 2025)
- EC adoption in Q4 2026

The new Circular Economy Act

According to the Commission's Call for Evidence, the Circular Economy Act aims to address **four persistent structural barriers**:

1. **Regulatory fragmentation:** Divergent interpretations of waste legislation across Member States disrupt the Single Market for recyclable materials
2. **Unfavourable economics:** Secondary materials remain less competitive due to inconsistent quality and higher costs
3. **Transparency gaps:** Lack of standardised data on recyclability and material content impairs decision-making
4. **Material leakage:** Poor enforcement, inefficient collection and sorting lead to the loss of valuable and critical resources

An Act with two strategic pillars

Pillar 1: Reform of e-waste and critical raw material recovery

The EU will revise collection, sorting, and recycling rules, particularly in high-impact waste streams such as electronics and e-mobility

Better recovery of critical raw materials (CRMs) will be prioritised, including through improved design for disassembly and recyclability

An Act with two strategic pillars

Pillar 2: A Single Market for secondary raw materials

The Commission aims to **harmonise key regulatory frameworks**, including:

- EU-wide reform of end-of-waste criteria
- Digitalisation and extension of EPR schemes
- Introduction of circularity requirements in public procurement

Conclusions

- Some EU countries (e.g. NL, IT, MT, BE) pave the way to high circularity levels, showing high EU CMUR is achievable
- However projected increased material demand and the lack of single market for waste, SRMs and circular products will make it impossible to double the EU CMUR by 2030
- The new Circular Economy Act will have to facilitate and increase compliance, possibly through administrative simplification, binding targets, or mechanisms for joint supply and demand of strategic circular materials

An Act with two strategic pillars

- The two pillars are based on current policy intentions and **remain open to revision**
- Their final legal form will depend on the outcome of the consultation, the impact assessment, and interinstitutional negotiations
- **Proactive and credible business input can help shape the direction of the regulation**
- They are policy intentions that can and may be shaped, but only with proactive, credible business input

The new Circular Economy Act

If in line with the Call for Evidence, the **EU Circular Economy Act can be expected to**:

- Harmonise fragmented rules to support a functional circular economy;
- Simplify compliance and reduce administrative burdens through digital tools;
- Create demand for circular products through public procurement;
- Drive investment into recycling infrastructure and sustainable product design;
- Align with existing legislation such as the Packaging and Packaging Waste Regulation (**PPWR**), Waste Framework Directive (**WFD**), and Ecodesign for Sustainable Products Regulation (**ESPR**).
- Set binding targets the double the CMUR by 2030

Sectors affected by the Act

The Circular Economy Act is expected to **impact sectors with high material use, complex product designs, or critical raw material dependencies**.

Construction

Companies may face **new circularity criteria** in public procurement, requirements to declare material composition, and stronger obligations on the reuse and recycling of construction and demolition waste. Harmonised end-of-waste criteria could reshape how materials like insulation, adhesives, and composites are classified and reused

Sectors affected by the Act

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Electronics

The EC is targeting **improved collection and recycling rates** for e-waste and critical raw materials. Expect **stricter rules on design** for disassembly, digital product passports, and the tracking of embedded materials. Non-compliant materials or components could face eco-modulated EPR fees.

Sectors affected by the Act

The Circular Economy Act is expected to **impact sectors with high material use, complex product designs, or critical raw material dependencies**.

Chemicals

New transparency and traceability rules may require **chemical content declarations** at product level. Substances that hinder recyclability or disassembly could face restrictions or higher producer responsibility costs, especially if linked to packaging, electronics, or adhesives.

Sectors affected by the Act

The Circular Economy Act is expected to **impact sectors with high material use, complex product designs, or critical raw material dependencies**.

Packaging

The Circular Economy Act is expected to complement the Packaging and Packaging Waste Regulation (PPWR), **reinforcing design-for-recyclability requirements** and the use of secondary raw materials. Mandatory reporting and digital tracking could become the norm.

Sectors affected by the Act

The Act is expected to **impact sectors with high material use, complex product designs, or critical raw material dependencies**.

Textiles

With low recycling rates and high environmental impact, textiles are **under growing regulatory scrutiny**. The Act is likely to introduce product-specific obligations around durability, repairability, material disclosure, and separate collection. In each of these sectors, the Act could transform how circular performance is measured, and rewarded. **Businesses that engage early can help shape proportionate, innovation-friendly rules that reflect sector realities.**

The possible options to redynamise

How could the Circular Economy Act increase secondary material use and lower its material footprint? (based on June 2025 IEEP – Institute for European Environmental Policies - report)

- the Act should enable the free movement of waste, circular products, SRMs, help to provide both higher quantities and quality for those materials and stimulate demand

1. **Setting new targets on material/consumption footprint and secondary raw material use**
   - Options could include overall resource consumption reduction **targets**, targets for specific materials or economic sectors, and commitments shared between Member States
   - Inspiration could be taken from countries which have already set national material consumption reduction targets, such as AT, BE, FI and NL

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The possible options to redynamise

How could the Circular Economy Act increase secondary material use and lower its material footprint? (based on IEEP report)

2. Scaling up the availability of and markets for quality secondary materials

- For many secondary raw materials, markets are not yet functional or viable at scale, due notably to the lack of collection, recovery, recycling and reprocessing infrastructure (including for many CRMs that are present in products in small quantities), leading to limited availability of material of high enough quality to be used in circular applications, creating a lack of certainty for investment decisions, hampering the development of sound markets for the use of SRMs
- The EC intention to create a "platform for demand aggregation and a matchmaking mechanism for strategic raw materials", as well as an EU Critical Raw Material Centre for the joint purchase of raw materials, are welcome

The possible options to redynamise

How could the Circular Economy Act increase secondary material use and lower its material footprint? (based on IEEP report)

2. **Scaling up the availability of and markets for quality secondary materials**
   - Further measures could include **actions related to limiting material exports** (e.g. export fees, restrictions), and the **promotion of cooperation between key actors**
3. **Exploring financial instruments and related measures**
   - To simplify, digitalise and expand **extended producer responsibility** (EPR) in a targeted manner to maximise the collection and revalorisation of products that contain valuable materials, including CRMs
   - Green public procurement to boost demand for secondary raw materials through sustainability criteria (e.g. recycled content requirements)

The possible options to redynamise

How could the Circular Economy Act increase secondary material use and lower its material footprint? (based on IEEP report)

3. **Exploring financial instruments and related measures**
   - **VAT Directive's rules** on the second-hand scheme should be reviewed to lower the cost of second-hand products via reduced tax rates
4. **Revisions to other related EU legislation**
   - The existing rules of the **WEEE (Waste of EEE) legislation** must be revised to ensure that they are simpler, fit-for-purpose and contribute to recovery of CRMs
   - **Reforming waste definitions and end-of-waste criteria** is necessary to remove ambiguity and complexity, preventing differing interpretations, legal uncertainty, and bureaucratic barriers to investment

The possible options to redynamise

How could the Circular Economy Act increase secondary material use and lower its material footprint? (based on IEEP report)

5. Unlocking the potential of Ecodesign

- The **EU's ecodesign legislation** covers features such as durability, reparability and ease of disassembly and applies to essentially all products placed on the EU market
- It allows for the setting of a whole range of **performance and information criteria and requirements** through specific delegated acts. Such criteria could be used in public procurement and in the information made available through Digital Product Passports to contribute to **a better understanding of product sustainability and circularity**, and encourage producers to design more circular products that incorporate secondary materials

Key reasons why the NL has a high CMUR

- **Strong recycling systems** NL has well-developed waste collection and recycling infrastructure. Materials like construction rubble, metals, plastics, and organic waste are efficiently separated and reintroduced into production cycles
- **Use of secondary materials** In 2022, about **13% of total material use** in the Dutch economy came from secondary sources (e.g. industrial residues, food waste as animal feed, and recovered raw materials from waste streams
- **Government policies and targets** Dutch authorities actively promote circular economy practices. The Netherlands has ambitious national strategies to reduce dependence on primary raw materials and to stimulate reuse and recycling
- **Industrial innovation** Dutch industries—especially in construction, textiles, and manufacturing—are pioneers in circular solutions. For example, recycled concrete is widely used in new building projects, and textile companies experiment with garment repair, resale, and fiber recycling
- **Cultural and economic drivers** The Netherlands' dense population and limited