



Circular Economy and Resource Efficiency Policies in the European Union

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Resource Efficiency (RE) and Circular Economy (CE) have become central pillars of global multilateralism



The Challenge

- **Resource extraction and processing** contribute to increasing **GHG emissions, biodiversity loss and water stress** (IRP, 2019)
- **Accelerating growth** in the **demand for raw materials**, which may lead to **resource scarcity** and supply chain **disruptions** (Rood & Kishna, 2019)

International Responses

- **Sustainable Development Goals**, especially SDG 12 (Responsible Consumption and Production)
- **G20 Resource Efficiency Dialogue** (launched in 2017, followed up in 2019)



G20 Resource Efficiency Dialogue



Why the EU needs a policy on RE and CE, *The EU's Current Status on Resources*

- European manufacturing firms **spend** on average **40%** of their expenditures on **materials**
- **Waste streams** are growing at ever increasing rates
- In 2017, **packaging waste** in Europe reached a record high of **173 kg per inhabitant** of which **less than 40%** were **recycled**
- **Annual waste** generation from all economic activities in the EU amounts to **2.5 billion tonnes**
- Big share of **waste** generated **transported** to **non-EU countries** instead of being processed domestically
- European **consumption** of **plastics** is expected to double in the next 20 years

Source: EU's Circular Economy Action Plan submitted by the European Commission



Background

In 2015, the European Commission ratified a plan to boost the continent's transition to a circular economy

Included in the plan were 54 measures to "close the loop" of the life cycles of products, mainly focusing on five sectors, including construction and demolition

In December 2019, a roadmap for the full transition of the European economy into one that is modern, resource-efficient, and competitive was announced

Then in March 2020, the new Circular Economy Action Plan was put into effect as part of the European Green Deal



EU Circular Economy Action Plan 2020, *Objective, Background and Central Ideas*

Objective

Achieving a **more sustainable** and more competitive EU together with economic actors, consumers, citizens and civil society organisations

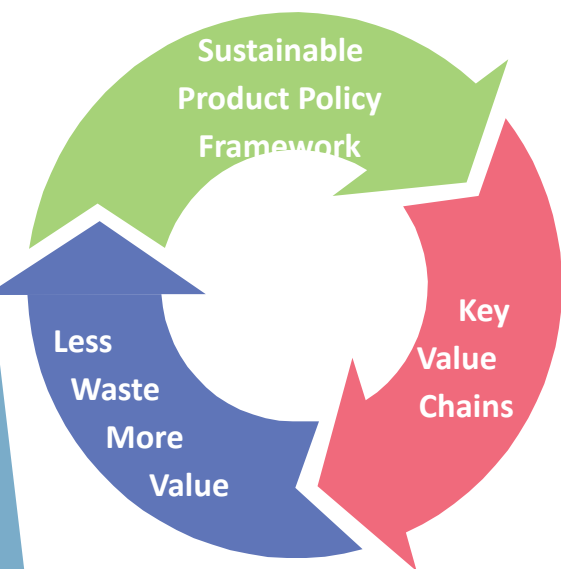
Background

- Initially launched in 2015 and renewed in 2020
- One of the strategies under the **European Green Deal**

Central Ideas

- Establishment of a strong and coherent **product policy framework** that supports sustainable products, services and business models
- **Transformation of consumption patterns** such that waste is not generated in the first place

EU's Circular Economy Action Plan



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

Making circular economy work for people, regions and cities

Circular economy as a requisite for climate neutrality

Getting the Economics Right

Financial Markets

Investments and R&I

Global Level Playing Field

Monitoring



EU Green Deal



Supplying clean, affordable and secure energy



Increasing the EU's climate
ambition for 2030 and 2050



A zero pollution ambition for a
toxic-free environment



Preserving and restoring
ecosystems and biodiversity



Accelerating the shift to sustainable and
smart mobility (90 percent reduction of
GHG by 2050 in comparison with 1990)



Mobilizing industry for a clean and
circular economy



From Farm to Fork: a fair, healthy and
environmentally friendly food system



Leave no one behind —
Just Transition Mechanism



Building and renovating in an
energy- and resource-efficient way



No net emissions of greenhouse gases by 2050

Economic Growth decoupled from Resource Use

No person and no place left behind - Inclusive Growth



Key Findings of Mapping Study

- **Circular Economy Measures** include policy dialogues, tools such as standards, eco-design measures, business models, innovation platforms
- **Sectors of interests: plastics and packaging, steel, aluminium (red-mud), textiles, bio-mass, agricultural waste, sustainable manufacturing, building and construction, automotive components, tyre/rubber manufacturing, shipping, power tools, end-of-life management** (plastics incl marine litter, e-waste, solar panels, batteries, textiles, vehicles, construction and demolition waste)
- End-of-life Management and approaches – **Extended Producer Responsibility experience, Recycling Technologies, Business models, innovative products**



Sweden

- The Leadership Group for Industry Transition (LeadIT) was launched by Sweden and India at UN Climate Change Conference 2019, allowing innovations and investments for Green Industry Leap i.e. reduction in industrial emissions and contributing to the transition to a fossil-free and circular society
- Sweden has collaborated with SESEI on Role of Standards and Policy in RE and CE Transition in India and EU



Denmark

- Danish Lifestyle and Design Cluster is an initiative that aims to increase growth through 'Circular Business Models' and addresses the challenges faced by SMEs, not realising the 'Circular Opportunities' and not having resources to make 'Circular Transition'
- Denmark is also part of the Indo-Nordic project on 'Circular Economy', which is undergoing to promote and showcase Nordic research-based innovations and solutions in green transitions-through joint research and commercial projects in Pune and Bangalore



Netherlands

- MVO Nederland is the largest sustainable business network in Europe, accelerating the transition to a 'New', 'Circular' and 'Sustainable economy'
- Valorisation of paddy straw is a successful Dutch project that contributes to the Circular Economy in the agriculture sector, creating social, environmental and economic impact.
- Dutch Cluster Clean Tech Delta has collaborated with Municipality of Dordrecht for creating Reuse Business Models for C&D waste in municipality



Germany

- Germany is a global leader in PhotoVoltaic, and the solar panel waste is officially regarded as Waste Electrical and Electronic Equipment (WEEE) as per the EU regulation. Solar panels are subject to a statutory take-back obligation in Germany, which is regulated by the ElektroG
- Germany is working with Aditya Birla Fashion and Retail Limited to strengthen 'Circular business practices', focussing on material innovation, increasing textile-to-textile recycling and developing alternatives to plastic packaging



Finland

- SITRA, Technology Industries of Finland & Accenture have developed a 'Circular Economy Playbook' & 'Tools for Manufacturing Industry' to help them transition to Circular Economy business
- Finnish Arctic Industry and Circular Economy Cluster connects process and mining industry companies, universities, research institutions, funding agencies and local authorities to attain common objective - making Lapland a front-runner in Resource Efficiency and Circular Economy



France

- France has worked extensively on waste segregation and waste management. One shining example is 'Choose Paris Region' which is committed to moving from a linear consumption model to a circular model. The 3 focus sectors in this plan are: Agriculture & Food, Tourism, Culture & Sports and Planning & Construction
- France's standardisation agency AFNOR has published the XP X30-901 standard, which is considered to be the first standard covering the definition of the 'Circular Economy'. The standard provides a reference for implementing a 'Circular Economy' project



EU organisations

- EU Eco-label products and EMAS-licensed organisations pave way for a country to get a rough measurement of transition to a Circular Economy and environmentally sustainable way.
- Two projects handled by EU organisations have been successful:
- First, Inclusive and circular waste management in Cox Bazar (Bangladesh) refugee camp
- Second, UrbanRec in Turkey is a project for reusing urban bulk waste (e.g. mattresses)



THANK YOU

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