Thinking the Transition

Moving towards a circular economy: EU policy framework and current challenges

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• Independent European think tank based in Brussels, founded in 1983

• Objectives:
   Policy-oriented research
   Forum for discussion

• Strong in-house research capacity and an extensive network of partner institutes throughout the world

• Extensive portfolio of work in the circular economy field:
   CIRC4Life: Circular economy business models in the electronics and food value chains
   CICERONE: Platform for circular economy funding and programming in the EU
   CEPS is a Knowledge Partner of the Green Growth Knowledge Platform
Global domestic material extraction

Waste generation in the EU by economic activity and households

Source: Eurostat.
EU trade balance

EU-28 exports, imports and trade balance in raw materials, 2002-2018
(EUR billion)

Source: Eurostat (online data code: DS-018995)
The Circular Economy

• Concept has been promoted in Europe as a new economic model that can support growth, competitiveness and create new jobs for Europe

• The concept has been taken up by major multinational companies around the world

• The circular economy is not a new concept and has been discussed in academic cycles for many decades

• 8 SDGs identified by the European Commission as relevant for the circular economy: 6, 8, 9, 11, 12, 13, 14 and 15
EU Circular Economy Package

Adopted in December 2015

• EU Action Plan for a Circular Economy
• Priority areas: Plastics, Food waste, Critical Raw Materials, Construction & Demolition, Biomass and bio-based products
• Revised legislative framework on waste
• EU Strategy for Plastics in the Circular Economy
• Progress on eco-design requirements for energy-related products
• Monitoring framework for the circular economy

Various member states have also adopted strategies and government-wide programmes for a circular economy
What has been achieved

Narrative has changed

• Thematic Strategy on the prevention and recycling of waste (2005): “The long-term goal is for the EU to become a recycling society, that seeks to avoid waste and uses waste as a resource. With high environmental reference standards in place the internal market will facilitate recycling and recovery activities”

• EU action plan for the Circular Economy (2015): “An economy, where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised, is an essential contribution to the EU's efforts to develop a sustainable, low carbon, resource efficient and competitive economy”
Framework of circular economy processes

**USE LESS PRIMARY RESOURCES**
- Recycling
- Efficient use of resources
- Utilisation of renewable energy sources

**MAINTAIN THE HIGHEST VALUE OF MATERIALS AND PRODUCTS**
- Remanufacturing, refurbishment and re-use of products and components
- Product life extension

**CHANGE UTILISATION PATTERNS**
- Product as service
- Sharing models
- Shift in consumption patterns
Application of circular economy processes in different sectors

<table>
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<tr>
<th>Circular process</th>
<th>Examples of sectors where circular processes can be applied</th>
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<tr>
<td><strong>USE OF LESS PRIMARY RESOURCES</strong></td>
<td></td>
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<tr>
<td>Recycling</td>
<td>Automobile industry, Textile industry, Building sector, Packaging sector, Critical Raw materials, Forest sector, Chemical industry</td>
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<td>Efficient use of resources</td>
<td>Building sector, Plastics industry, Mining and metals industry, Food sector</td>
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<td>Utilisation of renewable energy sources</td>
<td>Chemical industry, Food industry, Forest sector, Defense industry</td>
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<td>Remanufacturing, refurbishment, and reuse of products and components</td>
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<td>Sharing models</td>
<td>Automobile industry, Transport, Accommodation, Clothing</td>
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<td>Shift in consumption patterns</td>
<td>Food sector, Publishing sector, E-commerce sector</td>
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EU policy framework: what’s next with the new Commission?

- President-elect Ursula von der Leyen has pledged commitment towards achieving a climate neutral European economy by 2050
- The circular economy will be a key cornerstone of future EU industrial policy and for “developing Europe’s future economic model”
- Ambition is to make Europe a “world leader in circular economy and clean technologies”
- The new Commission’s approach will be to include both climate and circular economy in a new long-term industrial strategy for Europe
Key challenges in circular/bioeconomy value chains

• The shipment of waste for materials’ recovery within the EU is a complex process entailing a high administrative burden and costs
• Uncertainty about substances included in products
• Low progress in setting eco-design requirements for non energy related-products
• Need for more evidence on the merits and de-merits of different circular options
• Wide differences in waste management performance across member states; a lack of waste collection and processing infrastructure is an issue in several countries
Barriers to the implementation of circular economy business models

- Lack of support supply and demand network
- Lack of capital
- Lack of government support
- Administrative burden
- Lack of technical skills
- Lack of information
- Other barriers
- Company environmental culture

Source: Rizos et al. (2016).
Priorities for the coming five-year policy cycle

• Assess ways to facilitate the movement of waste for safe recovery of resources within the EU
• Expand the ecodesign rules to non-energy-related products
• Facilitate the trade and sale of remanufactured/refurbished goods in a global market
• Boost demand for circular/bio-based products (i.e. public procurement)
• Need for evidence base/scientific knowledge on the advantages and disadvantages of different circular/bio-based options
• Focus on the implementation of new waste rules
- THANK YOU! -