



CIRCULAR ECONOMY:  
VALUE CREATION  
OPPORTUNITY IN SUPPLY  
CHAIN'S

---



**ECOFYS &  
CIRCULAR  
ECONOMY**

**ECOFYS**

A Navigant Company

# SETTING THE STAGE

## CIRCULAR ECONOMY REQUIRES A SYSTEM CHANGE

**Changes occurring today are historic in terms of their scale, speed and scope.**

A deep transformation of production chains and consumption patterns and a shift in financial, fiscal and reporting instruments is envisaged to keep materials circulating in the economy for longer, re-designing industrial systems and encouraging cascading use of materials and waste.

Some elements of circularity in the linear economy, such as recycling & composting need to be maintained.

But a circular economy goes far beyond the pursuit of waste prevention and waste reduction to inspire technological, organisational and social innovation across and within value chains.

It requires actions in not only the regulatory field but also requires institutional changes, cultural changes, technological innovation and knowledge development & exchange just as closer cooperation and transparency between all actors.

CIRCULAR ECONOMY DEMANDS A SYSTEM CHANGE WITH PARALLEL ACTIONS ALONG THE VALUE CHAIN RATHER THAN A PURELY SECTOR AND/OR PRODUCT FOCUSED APPROACH.

# MORE POLICIES? BETTER POLICIES?

Need for a mix of **complementary instruments** and approaches across different parts of the circular economy (e.g. **regulatory measures complemented by economic incentives to ensure pricing of a related product or resource, funding for innovation** etc.) and efforts to engage and link actors along the value chain (to ensure circular thinking and identification of opportunities for greater circularity across the entire chain)

Need for policies which can **support existing efforts and opportunities (revising existing policies, removing barriers, supporting bottom-up initiatives); moving beyond the current focus on recycling** to support other loops in the circular economy (re-use, repair, refurbish, remanufacture); developing skills and providing incentives for innovation

When considering policy intervention in transitioning towards the circular economy, it is important to deep-dive in the details.

Need for **policy intervention (if any) and the type of intervention needed will vary** according to the issue at hand

In some areas, the transition to a circular economy might materialise **without intervention** (i.e. where products have high embedded material values, where the private sector moves towards more circular and/or service-based models independently as it seek opportunities)

while in other areas support including **public intervention is needed** to encourage the transition.

## THE GAPS THAT ACT AS BARRIERS TO THE DEVELOPMENT OF A CIRCULAR ECONOMY, AND THEREFORE WHERE FURTHER CONSIDERATION OF POLICY ACTION MAY BE BENEFICIAL IN PROMOTING THE CIRCULAR ECONOMY

- The lack of internalisation of externalities through policy or other measures and the lack of resource pricing (cost recovery and pricing for the resource itself), which lead to economic signals that do not encourage the efficient use of resources (i.e. as there are greater incentives to use materials more effectively) or a transition to a circular economy (i.e. as resources become more costly there are increased incentives to reuse/recycle materials);
- The lack of skills and investment in circular product design and production which could also facilitate re-use, repair, remanufacturing & recycling;
- The lack of enablers to improve cross-cycle and cross-sector performance due inter alia to non-alignment of power and incentives for transformation between actors within and across value chains;
- The lack of consumer and business acceptance regarding consumer-as-user e.g. leasing rather than owning, and performance-based payment models;
- The lack of know-how and economic incentives including for repair and reuse;
- The lack of consumer information on origins and perishability of products is not helping to raise consumer awareness on Circular Economy aspects;
- The lack of waste separation at source (especially for food waste and packaging);
- The lack of sustainable procurement incentives by public authorities;
- The lack of investment and innovation in recycling and recovery infrastructure and technologies, (related to this is the lock-in of existing technologies and infrastructure);
- The lack of harmonisation of transport flows systems within and between municipalities, which leads to confusion among shippers and transporters.
- Weaknesses in policy coherence (e.g. bioenergy and waste policies);
- Challenges in obtaining suitable finance for new Circular Economy Business Models;
- Widespread planned obsolescence within product chains.

# REGULATORY BARRIERS & DRIVERS TOWARDS A CIRCULAR ECONOMY

## CASE STUDY: DUTCH PROGRAMME BETTER REGULATION TOWARDS GREENGROWTH

Filters/Lenses	General Framework	Design & Production	Recovery & recycling	Logistics
Institutional / Organisational	<ul style="list-style-type: none"> <li>Linear Accountancy Rules</li> <li>Encourage experimentation</li> <li>Increased collaboration versus antitrust, data protection and security</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Cultural/Awareness	<ul style="list-style-type: none"> <li>Green Public Procurement</li> <li>Power play vested Interests</li> <li>Reaching the SME target Group</li> </ul>	<ul style="list-style-type: none"> <li>Eco-label</li> <li>Awareness &amp; behavior</li> <li>Education</li> <li>Consumer acceptance of models based on service and usage instead of ownership</li> </ul>	<ul style="list-style-type: none"> <li>Industrial Symbiosis</li> <li>Food waste: best before and use by confusion</li> <li>Bio-degradable versus bio-based confusion</li> <li>Consumer apps</li> </ul>	<ul style="list-style-type: none"> <li>Lack of standardisation and collaboration between cities</li> </ul>
Policy & Regulation	<ul style="list-style-type: none"> <li>(Value-chain) collaboration versus Antitrust</li> <li>Harmonisation of standards and definitions</li> </ul>	<ul style="list-style-type: none"> <li>Certification &amp; Industry Standards (other than bio-based)</li> <li>Dynamic standards; from prohibition to effect based controls</li> <li>Eco-Design (of for example non electrical appliances, link with resources and energy efficiency)</li> <li>Substitution of critical substances or substances of high concern</li> </ul>	<ul style="list-style-type: none"> <li>Extended Producer Responsibility</li> <li>Certification &amp; Industry Standards</li> <li>Dynamic standards [check]</li> <li>Preferred position in hierarchy for re-use-repair-refurbish-remanufacture</li> <li>Conflicting regulation &amp; subsidies energy-waste/recycling</li> <li>Status of Bio-fuels preparation in waste hierarchy: energy recovery or recycling?</li> <li>Lack of Resource Passport</li> <li>No tradable permits [check]</li> </ul>	<ul style="list-style-type: none"> <li>Antitrust in joint logistics concepts for inner cities/ between cities</li> </ul>
Access to financing	<ul style="list-style-type: none"> <li>Removal of distorting subsidies</li> <li>Private funding (not only focus on governmental subsidies)</li> <li>Impact of stranded assets</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Lack of VAT differentiation based on sustainability (for example no reduced VAT for recycled content)</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
	<ul style="list-style-type: none"> <li>Transparency, Integrated Reporting and more ESG consideration</li> <li>Liability, insolvency and insurance challenges with lease models</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Technological/Infrastructural/ Economical	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Lack of Competences &amp; Knowledge</li> <li>Importance of new Business Models and Design for sustainable footprint (eco-design, circular design, design for reuse- repair-refurbish-remanufacture-recycling, design for services instead of ownership)</li> </ul>	<ul style="list-style-type: none"> <li>Lack of Specific Skills</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

Barriers & Drivers towards a Circular Economy Literature Review A-140315-R-Final March 2015 Accelaratio



**PREETI SRIVASTAV** | Associate Director, Corporate  
Climate Action

Ecofys – A Navigant Company  
Ecofys Netherlands B.V. | Kanaalweg 15-G | 3526 KL  
Utrecht | The Netherlands  
Phone +31 (0)30 662 3300 | Phone +31 (0)62 118 1668 |  
[preeti.srivastav@navigant.com](mailto:preeti.srivastav@navigant.com)

[ecofys.com](http://ecofys.com) | [navigant.com](http://navigant.com)

**ECOFYS**  
  
A Navigant Company