



CIRCULAR IMPACTS

Measuring the impacts of the transition to a circular economy

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Content

- Introduction of CEPS
- The transition to a Circular Economy
- Measuring the impacts of the transition
- Evidence base – web tool
- Mapping of circular economy processes
- Case studies
- Questions for discussion



- 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/resource efficiency field:
 - CEPS Task Force on the Circular Economy

Project Summary - Measuring the **IMPACTS** of the transition to the **CIRCULAR** economy

- Horizon 2020 EU-funded project
- **Duration:** 24 months (started in October 2017)
- **Aim:** “provide European policy makers with the knowledge to guide and foster the transition to a more circular economy by developing an overarching impact assessment of that transition and at the same time make the evidence base available for policy makers”

List of Partners

Ecologic Institute (Consortium leader)




CEPS The Centre for European
Policy Studies



Wageningen Economic Research
(formerly LEI Wageningen UR)



Transition to a Circular Economy

- EU ambition to become a sustainable, low-carbon and competitive economy
- The CE replaces the traditional linear model
- The transition should benefit the EU:
 - Creating **jobs**
 - Impact on **GDP**
 - Improving the balance of trade by **reducing imports**
 - Protecting the **environment** by reducing **land take** of extraction and waste disposal as well as **emissions**
 - Improving **labour market participation**
- **However**  these impacts need to be properly measured

Transition to a Circular Economy

- Broad range of EU policies or processes relate to this transition
 - The **Circular Economy Package**
 - The **European Semester**
- Many CE policy proposals and initiatives will need an evidence base to support robust policy making

Measuring the transition

- CIRCULAR IMPACTS will provide two major outputs to help measure the transition:
 - A **structured evidence base (web tool)** facilitating finding and using the existing evidence base
 - An **overview impact assessment** summarising the existing evidence base on the **potential impacts** of such a transition in order to help setting **policy priorities**

Evidence base – web tool

- Collection of existing data sources and indicators
- The key concept of CIRCULAR IMPACTS is to make this evidence base available
- A web tool should enable the user to **quickly find and understand** the **evidence** needed
- The web tool should enable a **structured** and **interactive** search
- Target audience: policy makers, scientists, business associations and NGOs

Overview Impact Assessment

- Circular economy transition has multiple objectives
- Many impacts across value chains
- **Consistent overview** on relevance of the different impacts does not yet exist
- Based on the assembled evidence an **overview of the expected impacts of the transition** will be developed

Overview Impact Assessment

- An important part of the work and measure of success will be the engagement of stakeholders into the project
 - Other initiatives working on the topic (EEA, EU commission and others)
 - Industry experts with knowledge on the new production processes and the processes they replace (Steering group)
 - The research team will develop 4 case studies with the support of stakeholders

Main 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

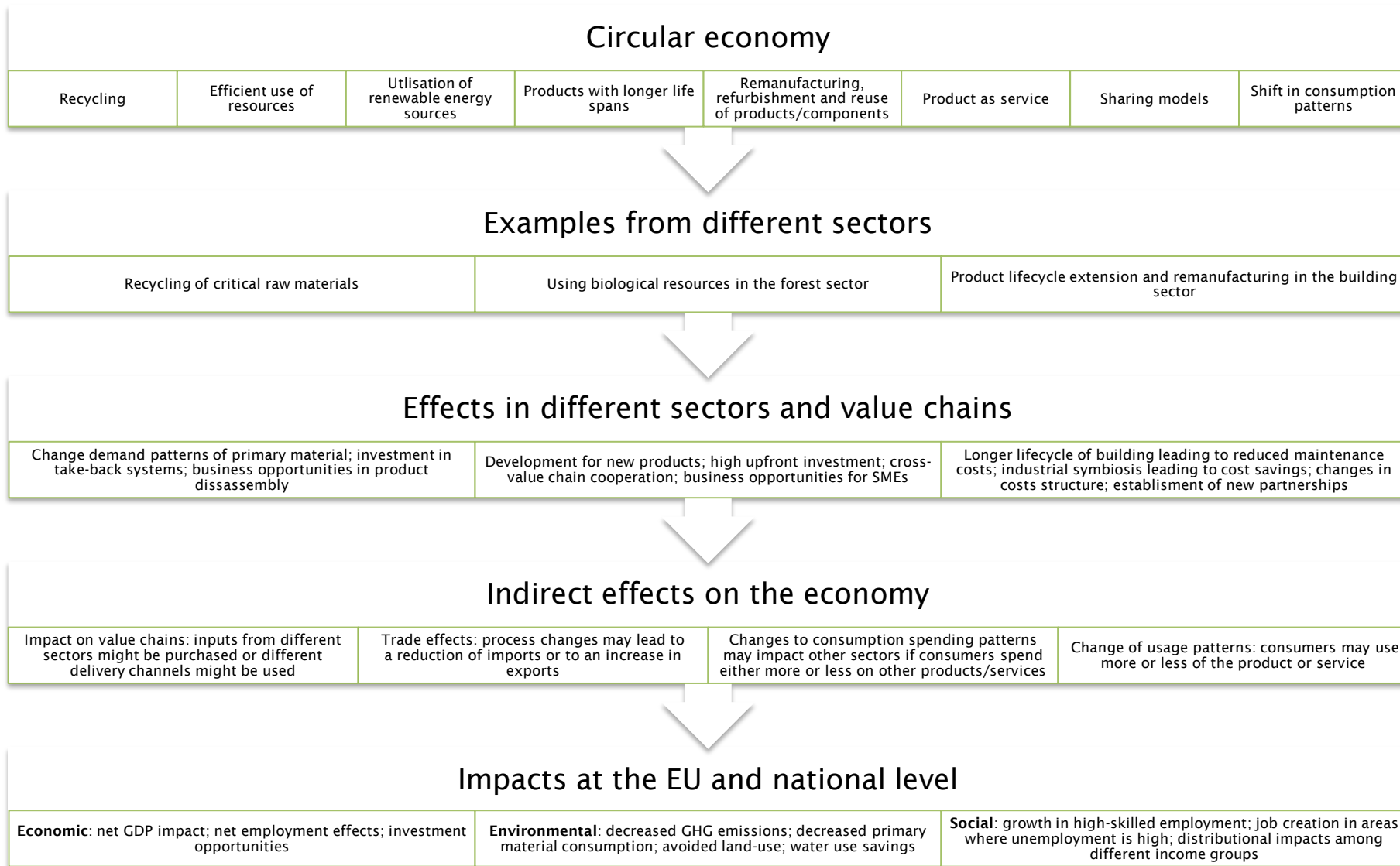
CHANGE UTILISATION PATTERNS

- Product as service
- Sharing models
- Shift in consumption patterns

Mapping of application of circular economy processes in various sectors

	Circular process	Examples of sectors where circular processes can be applied
USE OF LESS PRIMARY RESOURCES	Recycling	Automobile industry, Textile industry, Building sector, Packaging sector, Critical Raw materials, Forest sector, Chemical industry
	Efficient use of resources	Building sector, Plastics industry, Mining and metals industry, Food sector
	Utilisation of renewable energy sources	Chemical industry, Food industry, Forest sector, Defense industry
MAINTAIN THE HIGHEST VALUE OF MATERIALS AND PRODUCTS	Remanufacturing, refurbishment, and reuse of products and components	Automobile industry, Manufacture of consumer electronics, Building sector, Furniture sector, Transport
	Product life extension	Automobile industry, Electronics industry, Household appliances, Food industry, Textile industry, Defense industry
	Product as service	Manufacture of consumer electronics, Household appliances, Transport, Building sector, Automobile industry
CHANGE UTILISATION PATTERNS	Sharing models	Automobile industry, Transport, Accommodation, Clothing
	Shift in consumption patterns	Food sector, Publishing sector, E-commerce sector

Circular economy effects on sectors and impacts



Case studies

- Sustainable buildings
- Nutrient recycling
- Sharing economy
- Critical Raw Materials (CRMs)

Some of the challenges for CRMs

- CRMs are spread around a variety of consumer products and often in small quantities
- Therefore their recycling is often difficult and requires investment in take-back systems
- Products are often designed in such a way that CRMs are difficult to separate from other materials
- In some cases recycling of CRMs is labour-intensive

Case studies

- Desk-based literature review
- Expert interviews
- Workshop with experts to check the outcomes of the case study

Timing

- April – November 2017: Desk-based research/experts interviews for case studies
- Nov 2017 – Feb 2018: Workshops
- Web tool to be ready by April 2018
- Impact assessment to be completed by August 2018
- September 2018: Conference in Brussels to present the project results

Questions for discussion

- What kind of information/data could you provide to the project?
- Which other information repositories should we look into?
- Would you have any recommendations for specific applications that we should prioritise?
- For which CRMs there is a good data availability?

Questions and discussion

- THANK YOU! -

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