Alternative Business Models for Improved Circularity

WP2.2. Summary

Alberto Huerta, AAU

Arnhem, 1 October 2018
Circular Economy
The premise

• *Linear economy*, we *take natural resources, make* low quality products, and after a brief period time, discard them as *waste*. This inefficient model depletes natural resources, requires large quantities of energy and creates waste.

• *Circular Economy*, products are not discarded as waste after being used, on the contrary, through a series of strategies, products preserve as much value as possible for as long as possible. Increase GDP and employment.
Circular Economy applied in enterprises
Circular Strategies

• The CE principles represent a vision at a societal level. At the organizational level literature points out to circular strategies or circular business models.

• Circular Strategies: deliberate actions that companies conduct in order to realize the CE Principles. Close, slow or narrow the material resource loops of a product which increases circulation, recovery and value preservation.

• Plenty of examples and classifications of CS. Common point: external (market conditions, regulations) and internal (company capabilities) factors determine which CS is the most fitting. Critical aspect to consider: Influence on life-cycle.
CE applied at enterprises
Circularity Enablers

- Pre-requisites, facilitators, critical aspects in the application of circularity from organizations. Usually present at different circular business models.
CE applied at enterprises

CE Practices (by stage of life-cycle)

**BOL**
- Raw Material Extraction
- Design
- Component Manufacture
- Product Manufacture
- Product Ensemble

**MOL**
- Distribution and warehousing
- Retail and wholesale
- Repair and Maintenance
- Use of product

**EOL**
- Collection
- Disposal
- Recovery activities

- Industrial symbiosis
- Next-life sales
- Long-life model
- Industrial extension
- Sufficiency model
- Performance Model
- Sharing Platforms
- Cascading

- Substitution
- De-materialization
- Relying on renewables
- Energy Efficiency
Circular Business Models
The key to circularity

- A Business Model represents how a firm offers, creates, delivers and captures value [31]. Circular Business Models (CBM) have “circularity” embedded in their value proposition.

- In other words, Circular Strategies do not guarantee circularity, they require the right business model.

- CBM is a complex process, since it requires coordination and collaboration in every stage of the supply chain.

- Three flows between supply chain actors occur: Materials, Information and Money. Understanding these different flows is crucial in understanding the potential for individual firms to participate in a supply chain [33] and therefore to achieve circularity. For example:
  
  Material: embedded circularity in products (recycled material, recyclable materials, design for disassembly, etc.)

  Information: How to use/maintain products? what is the state of the product at the “end-of-life“?

  Money: traditional purchasing interactions (single purchase with change of ownership of the product) might be replaced with innovative models such as leasing, long/short term renting, offering products as a service, 3rd party collaboration.
What is next?

- Use this “framework” to identify, organize and present the findings of the 50 best practices and 10 in-depth cases.
- “adopt” framework and reflect in other WPs

Some questions to reflect upon:

- Is the framework useful/practical?
- Is there something missing? Does something needs to be taken out?
- Does it add value? (clarity, identity) or should we adopt other “known” frameworks