



From a material flow perspective, a Circular Economy represents a transition from linear resource flows (thick, open-ended and fast) to circular resource flows (narrow, slow and closed).

CIRCULAR RESOURCE FLOW

In order to capitalize on the business opportunities of a Circular Economy transition, firms require a Circular Business Model (CBM).

CBM describe a firm's approach for systematically creating, delivering and capturing commercial value as a result of maximizing and preserving the value of products, components and materials.

The dual goal of CBM: create value and increase circularity.

Many enterprises increase material efficiency of their products, send waste to a recycling station, or integrate a fraction of recycled material into their products. These are all relevant activities in a Circular Economy, however, they do not represent a CBM.

A CBM uses circularity as the main mechanism for value creation – not a complementary activity. In order to embed circularity at the core of value creation, enterprises must (re)design the products and services they supply, the relationships they have with suppliers and consumers as well as their internal operations. Only then, circularity can be placed at the core of value creation of the firm instead of a cost-efficiency measure or a waste handling practice.



Activities part of renovation recourse.
Photo: Alise Abele, Pavasara Mēbeles.

In order to create value through circularity, SMEs can follow one (or more) of the following strategies:



Promote sufficiency: Promoting and facilitating consumer practices that lead to an absolute reduction in consumption.



Life extension: Extend product life through service interventions such as repair, refurbishment, remanufacturing or retrofitting (infra-structures).



Market creation: Provide a physical or virtual arena where suppliers and consumers for secondary products or materials.



Waste-as-a-resource: Exploit the residual value in waste streams in order to incorporate them as the main raw material for production.



Performance model: Do not sell products (retain ownership) instead offer the service they provide or guarantee results.



Recover: Collect and transform waste into a suitable raw material for production or into an input that can be used to restore natural capital.



Sopköket

- **Sopköket** is a restaurant and catering business that prepares meals based on partly rescued and surplus ingredients from supermarkets and wholesalers.
- **CBM strategy:** **Waste-as-a-resource**
- **Country:** Sweden
- **Main benefit:** Reduce the amount of food waste generated at different points of the supply chain
- **Main Challenge:** Higher salary costs due to additional work collecting, sorting and cleaning ingredients and creating new recipes every day. Some regulations may present unnecessary barriers in the process of establishing collaboration with donating organizations (e.g. supermarkets).



Turza

- **Turza** is retail shop following the zero-waste philosophy. They offer a variety of produce and products package free and in bulk.
- **Main CBM strategy:** **Promote sufficiency**
- **Country:** Latvia
- **Main benefit:** Turza reduces demand for plastic and plastic waste by offering package free solution. Plus it gives customers a chance to buy the specific desired quantities which helps reduce the potential of overstocking and eventual food waste at the household level.
- **Main challenge:** Misconceptions regarding bulk products lacking hygiene, lack of variety of brands and an overall “fast-shopping” culture. Furthermore, vegetables and fruits are more expensive due to market conditions.



Accus

- **Accus** is a company specialized in selling, renting and providing signage for visual communication of buildings and facilities as a service.
- **Main CBM Strategy:** **Performance model**
- **Country:** Sweden
- **Main benefit:** reuse signs for multiple users as well as incorporating components from existing signage into new designs. Incentive for designing modular and long lasting signs.
- **Main challenge:** branding signs require a high degree of aesthetics and uniqueness in their design which can be at odds with circular design (modularity and re-usability). Developing innovative designs and providing a constant maintenance service and adjustment, involves higher salary costs.



Rec.On

- **Rec.On** specializes on design and manufacturing of handcrafted utility products from parts of end-of-life vehicles and construction waste.
- **CBM Strategy:** **Waste-as-a-resource**
- **Country:** Poland
- **Main Benefit:** The use of these pre-fabricated metal pieces substitutes the intensive energy process of metal folding. The shapes from the components they use as raw material gives their design uniqueness and added value
- **Main Challenge:** Collecting and working with their raw materials (waste) requires intensive labour that makes their products relatively more expensive compared to designs manufactured with virgin raw materials.



Inrego

- The business model of **Inrego** consists in purchasing used ICT equipment, refurbish it, clearing all the data it contains and re-selling it, leasing it or renting it to new customers.
- **Main CBM Strategy:** **Life extension**
- **Country:** Sweden
- **Main benefit:** maintain ICT equipment at their highest potential value for the longest time. Offer non-new ICT equipment for the market sector that is not interested in purchasing new.
- **Main Challenge:** Other organizations often are unaware of the residual value of their ICT equipment and do not have the proper systems in place in order to control, collect and sell their used ICT equipment to enterprises like Inrego.



Sajkla

- **Sajkla** is a company focused in creating a one-stop shop for refurbished furniture. They provide multiple services, including consultancy services (e.g. inventory analysis), peer-to-peer digital market platform, education programs, amongst others.
- **Main CBM strategy:** **Market Creation**
- **Country:** Sweden
- **Main Benefit:** Through a digital market, connect owners of used furniture with a network of refurbishing companies. Their website also functions as a market for refurbished furniture where customer can purchase from a pre-defined selection. Their consultancy and training programs are focused on improving awareness of the capacity for refurbishing furniture.
- **Main Challenge:** misconceptions in regards to refurbished furniture (associate them with old, non-functional). Limited information and marketplaces specialized in refurbished furniture.



Better World Fashion

- **Better World Fashion** manufactures leather goods such as jackets, bags, oven mittens, computer bags etc. based on recycled leather. Their main product, leather jackets, include a buy-back guarantee when purchased. Additionally, they have short-term rental (4 months) and leasing model (24 months) for their jackets.
- **CBM Strategy:** **Performance model**
- **Country:** Denmark
- **Main benefit:** reduce demand for new leather by maximizing the residual value of used leather garments and keeping ownerships of their jackets through their rental and leasing systems.
- **Main Challenge:** The environmental and social standards they embrace makes their production processes more expensive compared to traditional clothing manufacturing processes with a geographically disperse supply chain that generates negative externalities.



Pavasara Mēbeles

- **The focus of Pavasara Mēbeles** is restoration and upcycling of furniture. They have three main business lines: 1) Collect pieces of furniture at their end of life and transform them into valuable and modern pieces of furniture able to be resold 2) Offer renovation of furniture on demand and interior design consultancy services 3) Conduct seminars, courses and workshops in order to teach people how to perform renovation work of their own furniture.
- **CBM Strategy:** **Promote sufficiency**
- **Country:** Latvia
- **Main Benefit:** Renovation and upcycling old furniture prevents it from being disposed as waste and it provides an opportunity to create value in the economy. Their courses develop skills in people that allow them to reduce their own furniture consumption and disposal in the future.
- **Main Challenge:** Each design is unique, therefore continuous skills development is necessary in order to deal with the variety of end-of-life furniture that requires renovation.



Novorossiysk

- **Novorossiysk** is a project-based company specialized on renovating ships and vessels through a variety of maintenance and service interventions. They also collect valuable components from ships beyond repair.
- **CBM Strategy:** **Waste-as-a-resource**
- **Country:** Russia
- **Main benefit:** restore large ships and vessels to a functional state by replacing worn-out components with parts newly purchased or manufactured in-house.
- **Main Challenge:** secure continuous supply of contracts for renovation and access to wrecked ships and vessels. However, Novorossiysk has built up their own fleet of renovated vessels which allowed them to diversify their potential business activities.



Re-match

- High quality recycling of synthetic turf facilities. Their patented technology separates sand, rubber and clean plastic fibers which can be used as raw material for production of new turf pitches.
- **Main CBM Strategy:** **Recycling**
- **Country:** Denmark
- **Main benefit:** Reduce dependency of virgin raw materials for construction of turf pitches through functional recycling of worn out facilities. Transparent reporting of the recycling processes and material flows for customers.



Inside of zero-waste shop Turza. Photo: Madara Bundzeniece, Turza.

How are SMEs in the Baltic Sea Region creating value through circularity?

At CircularPP we analyzed 50 cases of CBM of SMEs operating in seven different countries: Denmark, Sweden, Finland, Poland, Latvia, Russia and the Netherlands. Based on this analysis, it was possible to determine how are SMEs creating value through circularity in specific product groups.



Testing/data wiping line at Inrego. Photo: Erik Petterson, Inrego.

Food and food-based products

- Facilitate sustainable consumer practices such as allowing consumers to buy in bulk, or minimize food waste at the household level.
- Capitalize on the residual value of secondary flows (e.g. by-products from production or “waste” generated across the supply chain)
- Create or enhance accessibility to secondary flows through digital or physical markets, particularly to the food service industry and consumers.

Built Environment

- Design constructions that incorporate available material flows in the region. Improve the coordination between (selective) demolition sites and new constructions through digital flow mapping
- Design components (e.g. carpeting, luminaries and insulation panels) based on circularity principles. When possible, offer these components as a service (e.g. luminaries or signs as a service)
- Renovate construction components such as lighting fixtures and conduct selective demolition in order to recover valuable components.

Furniture

- Provide office furniture management as an integrated service including design, manufacturing, maintenance and buy-back or collection.
- Collect used furniture that can be refurbished and re-sold. Offer training courses for consumers and organizations to refurbish their own furniture.
- Facilitate the connection between supply and demand for used and refurbished furniture through digital markets.

ICT equipment

- Capitalize on the residual value of used ICT equipment by acquiring it or purchasing it from organizations and private individuals; then refurbishing it (i.e. repair, upgrade and data wipe) in order to be sold to different users
- Collaborate between manufacturers and remanufacturers to include a buy-back guarantee into leasing programs
- Provide office ICT equipment management as an integrated service including purchasing, upgrade and take-back of used equipment that can be re-sold.

Clothing and textiles

- Purchase recycled material, by-products from other industries (e.g. leather from furniture sector) or consumer garments (e.g. old jeans) in order to use them as the main raw material for manufacturing of new garments. Offer a buy-back guarantee of own garments
- Provide washing, drying and maintenance as a service for corporate clothing
- Collect un-wanted clothes that can be repaired and resold, reworked into new garments or down-cycled as non-clothing textiles



 To find more information about CBM, you can download the full report “Alternative business models available for circular procurement” available at <http://circularpp.eu/>