R3FRAME

Circular Economy strategy FRAMEwork for sustainable SMEs

IO3: Circular Economy Implementation Framework (CE Framework)

Disclaimer:

Project Agreement No. 2020-1-EL01-KA202-078870

Co-funded by the Erasmus+ Programme of the European Union

Dimension of CE Implementation

B. Products & Services

The second dimension of circular transformation focuses on the circular requirements that craft products must exhibit and underpins the Product Life extension model. Craft products must be designed in a way that (a) ensures that they will be used for a long period - ideally indefinitely- containing only circular components and (b) facilitates disassembly while preserving the value either for their operations or for another firm. This is the way products life is extended as long as possible and materials and components remain in a closed loop. Transforming products from linear to circular can be challenging for a craft and literature has identified four areas to focus on:

- Design
- Use
- Use Extension
- End of Use

Each area is interlinked with the rest for example what happens at the end of use stage of a craft product heavily affects the design phase and vice versa.

Design

Circularity starts with the design phase of the product. That means that what is produced by crafts should be designed to last, allow for repair, ensure compatibility with existing products, serve alternative usage objectives and facilitate disassembly and recycling. For the latter, crafts need to examine the current level of circularity in their supplies by performing an assessment and using it as a reference. After evaluating the current status, crafts need to identify potential circular interventions that will enable products to extend their usage time and preserve their value after the end of the usage period.

Use

The use stage of the product is critical for its overall lifecycle. Products made under the CE perspective should be utilised at a maximum rate. For this to happen, it requires that the products do not break down and that the products can serve multiple purposes. Thus, if the product cannot serve its original purpose, it can be repurposed for something else. This is the way to maximise the value that is offered to the customers. Taking it a step further, under the product as a service model, the product's value is fully utilised and shared by different customers.

Use Extension

It's always frustrating to have products ending up in landfills due to a malfunction or obsolescence. Each time a product ends up in a landfill, all energy and resources spent

for its production are lost. Crafts need to extend products' usage time by providing maintenance or repair services, which can be accomplished by raising awareness and by providing product support services. This not only keeps products in the system but also increases customers' value, enhances loyalty, amplifies brand image and generates additional sources of income. A second way for a craft company to extend the life of its products is through resale, often in secondary markets via, for example, collection programs and resale platforms.

End of Use

Finally, there should be a plan for when the product's life comes to an end. Crafts that employ recyclable materials should promote this feature to their customers. It is even better if the products end up back for upcycling to the crafts. Collecting end-of-use products is a good first step, but it's also important to optimise the value of that return flow. Salty Bag is a great example of the end of use management since it actively supports the recycling of its used bags by providing discounts and incentives to the customers that return their bags.

Business processes involved in operations are the following (Lacy et al., 2020):

- Design and Product Development for less resource-intensive material, life extensions, and repurposing at end of use
- Procurement to shift to alternative materials and inputs
- Marketing to shape relevant and impactful value propositions
- Sales to engage customers and markets in circular offerings, including transitioning
- to as-a-service and takeback models
- Reverse Logistics to set up return flows for products coming back at end of use
- (Re)Manufacturing to set up and manage new forward flows for returned products and/or parts