Closing the loop – Exploring markets and circular business models for kitchen furniture

Background

Product lifespans of household appliances are declining, leading to increased levels of material usage and environmental impact. The kitchen industry follows a linear model which does not support companies in designing kitchens that are made to last. The service life of kitchens in Swedish households has been found to be as short as 7 years. Many times, it is both easier and more economical for housing owners and end-users to replace their old kitchen with new ones rather than having them repaired or refurbished, and the secondhand market is still to be explored.

Project description

In the move towards a more circular economy, new design solutions need to be supported by smarter business models. Your task in this project is to explore possibilities for circular business models starting from an on-going development, prototyping and testing of a more circular kitchen furniture. The goal for the Circular Kitchen project is to extend the service life of the kitchen, increase its adaptability and flexibility for user induced changes over time and facilitate repair and refurbishment. Circular business models could involve reversed supply chains, take-back and reuse of components and materials. Another possibility is to let users to pay for usage rather than ownership, also known as product service systems (PSS). How could a new circular business model for a circular kitchen be designed in order to benefit both the producer and the users? How could the new business model be adapted to different kinds of users (e.g. professional housing developers and households)? To assess the profitability and feasibility of proposed business model(s), production cost, logistics cost, selling or renting price need to be studied. Also, the design and quality of the kitchen need to be considered to reduce maintenance costs, frequency of non-functionality, profitability of recycling etc.

Keywords

Circular business models, kitchen furniture, profitability, housing developers, use vs. ownership, user groups

Qualifications

We are looking for students with an interest in Circular Economy and a good ability to work interdisciplinary and individually. You will be part of an exciting research team involving research and demonstrators, and you will benefit from contact with and supervision from industrial business partners.

The project can be established as a collaboration between two master’s students from the following programmes: Industrial Design Engineering, Product Development and Management and Economics of Innovation. You can benefit from results within the research project including a supply chain analysis, and a recent market study.

Examiner and contact

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