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Transition from Linear to Circular Business Models with Service Design Methodology

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Abstract : Estimates of the economic value of transitioning to circular economy models vary but it has been estimated to represent $1 trillion worth of new business into the global economy. In Europe alone, estimates claim that adopting circular-economy principles could not only have environmental and social benefits but also generate a net economic benefit of €1.8 trillion by 2030. Proponents of a circular economy argue that it offers a major opportunity to increase resource productivity, decrease resource dependence and waste, and increase employment and growth. A circular system could improve competitiveness and unleash innovation. Yet, most companies are not capturing these opportunities and thus the even abundant circular opportunities remain uncaptured even though they would seem inherently profitable. Service design in broad terms relates to developing an existing or a new service or service concept with emphasis and focus on the customer experience from the onset of the development process. Service design may even mean starting from scratch and co-creating the service concept entirely with the help of customer involvement. Service design methodologies provide a structured way of incorporating customer understanding and involvement in the process of designing better services with better resonance to customer needs. A business model is a depiction of how the company creates, delivers, and captures value; i.e. how it organizes its business. The process of business model development and adjustment or modification is also called business model innovation. Innovating business models has become a part of business strategy. Our hypothesis is that in addition to linear models still being easier to adopt and often with lower threshold costs, companies lack an understanding of how circular models can be adopted into their business and how customers will be willing and ready to adopt the new circular business models. In our research, we use robust service design methodology to develop circular economy solutions with two case study companies. The aim of the process is to not only develop the service concepts and portfolio, but to demonstrate the willingness to adopt circular solutions exists in the customer base. In addition to service design, we employ business model innovation methods to develop, test, and validate the new circular business models further. The results clearly indicate that amongst the customer groups there are specific customer personas that are willing to adopt and in fact are expecting the companies to take a leading role in the transition towards a circular economy. At the same time, there is a group of indifferents, to whom the idea of circularity provides no added value. In addition, the case studies clearly show what changes adoption of circular economy principles brings to the existing business model and how they can be integrated.

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