## Can Actant-centric System Analyses and Sustainable Value Proposition Methods be an Approach to Aufficiency?

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#planet-centric #sustainable value
#sufficiency #co-creative workshop
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To create throughout circular product-service systems (PSS), Circular Design needs to combine methods from life-cycle-thinking, planetary stakeholder analysis as well as user-centric business design. To oversee this complexity 'zooming in' (micro level) on specific attributes of a PSS has to alternate with 'zooming out' (macro level) to understand the systemic effects of envisioned changes – e. g. undesired consequences or the interdependencies between network partners. In two consecutive projects (www.ecodesigncircle.eu) TU Berlin, Fraunhofer IZM and Design Centres in the Baltic Sea Region developed circular design processes and methods that integrate above mentioned requirements (www.circulardesign.tools). Those methods evolved into three formats which sup-

port companies in developing sustainable products and services by design: EcoDesign Audit assesses the circular maturity and strategic goals of organizations, EcoDesign Sprint helps companies develop a sustainable product or service concept and EcoDesign Learning Factory interactively teaches how to eco-design. The methods were tested in an iterative process in over 30 interdisciplinary trainings with designers, engineers and business managers. They are already applied with industry clients. In approximately 35 (online) design trainings we trained more than 350 international professionals working at SMEs, industry, design agencies and consultancies.

Attempting to meet the responsibility of the design discipline for a sustainable economic development there are several recent approaches to incorporate the eco-system or the planet into the design process namely Planet Centric Design, Earth Centred Design or Environment-Centred Design. In recent workshops we combined vincits planetcentric 'actant' approach with the concepts of sustainable value proposition (Yang et al. 2014, Bocken et al. 2013) and service design for the Circular Economy. The theoretically defined concept(s) of the Circular Economy (CE) promises to decouple economic growth form resource consumption but has not yet been realized. However, there is some fundamental critique about the CE concept(s), amongst others that the concept is replicating the neo-classical paradigm of economic growth and continuous consumption while social factors such as participation, inclusiveness, distribution of power, and democratization of production processes are not part of the concept. Physical and technical limits of cycling materials are not fully considered (increase of entropy, dissipation, complexity of waste streams) and practicality and economic sustainability has not yet been demonstrated neither have environmental benefits of circularity fully been proven. Therefore, it is "just" a conceptual framework, which on the one hand isnvague and therefore in its vision uncontroversial, but on the other hand technocratic and normative (See for example Corvellec et al. 2021).

Due to this critique we would like to discuss how to further enhance our methodology towards designing for sufficiency. In our current approach the socio-ecological impacts and benefits created by an economic activity are allocated to concrete stakeholders or 'actants' which act as representatives for the various aspects of the 'eco-system planet' (e. g. animals, policy makers, NGOs but also non-living). A detailed analyze of values created, captured, lost and missed seizes opportunities how to use resources more effectively. Based on that a sustainable value proposition and service offers catering to the needs & objectives of the user as much as the other stakeholders is created by capturing new forms of value and reducing the identified (negative) impacts.

The benefits we see in the approach is that by staying in the business logic and terminology it will be easier to transfer 'circular design' into companies' current practices and foster adoption by re-defining 'reducing harm' into capturing untapped values. However, aspect such as planetary limits, justice for both humans, other species and nature as well as creation of wellbeing are not yet fully integrated into our approach.

In the workshop we will present our design process and methods and test the actant-centric approach combined with sustainable value propositions in teams. After a short introduction also touching on the concept and building blocks of the sustainability strategy 'sufficiency' we invite the participants to test the methods in teams. Based on this experience we will facilitate a co-creative session on how to further enhance the methods with the objective of creating business models and services catering for needs according to Maslow's pyramid while staying in planetary boundaries or maybe even contributing to the planets regeneration. There are no specific requirements for attending the workshop and we invite up to 20 participants from all disciplines for a multifaceted fruitful discussion. The results and findings will be summarized for all attendees and feed into the enhancement of (new) methods in our online, opensource toolbox <a href="https://www.circulardesign.tools">www.circulardesign.tools</a>.

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