

Tech Venture Challenge

Enabling Circular Economy Through Collaborations in Manufacturing Industry

Development of an Indicator Set / Assessment Method for Collaboration Projects



Picture: Mac Mullins / Pexels

Challenge description

The circular economy (CE) has emerged as a promising paradigm for addressing the growing challenges of resource scarcity and environmental degradation. It emphasizes the principles of waste reduction, reuse, and recycling to create a more sustainable and regenerative economic system. However, transitioning to a CE is complex and requires collaboration among stakeholders, including companies, governments, and non-governmental organizations.

Collaborations between companies and start-ups can play a crucial role in facilitating the implementation of circular economy principles. By sharing resources, knowledge, technologies, and expertise, companies can rapidly overcome barriers to innovation and scale up circular projects. However, a comprehensive framework is lacking to guide these joint projects and assess the success for circular economy implementation.

Thesis Focus

Within your master thesis project, you will work on scientific research questions depending on your study program and related to:

- the interplay between SMEs, established firms, and start-ups in driving innovation and technology implementation related to Circular Economy
- Environmental, social and economical indicators and assessment methods to assess projects, especially joint collaborations - best case in CE related

Profile and process

You apply individually with a motivation and a CV (but no project draft) and will write an individual master thesis which is suitable to your study program. You should have:

- Motivation to innovate and curiosity
- Enthusiasm for Circular Economy / Sustainability
- Exceptional analytical skills
- Creative problem solver skills
- Willingness to take responsibility and work independently
- A team player attitude

Upon successful application, you will become part of the TUM Entrepreneurial Masterclass with all according benefits, such as real added value for the ecosystem in and around Munich and access to the UnternehmerTUM ecosystem.

TUM Entrepreneurial Masterclass

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