Blending Open Innovation and Circular Economy Models

Summary

The goal of this PhD project is to examine using mixed methods research the influential factors, processes and relevant stakeholders to facilitate openness of organizational boundaries where companies pursue the transformation towards circular economy, all with the aim to contribute to the sustainable development in Estonia and the EU. The project addresses following research questions: what is the actual status quo of the adoption of circular economy practices using an open innovation approach? What are the relevant barriers and success factors? How do companies manage collaboration and exchange of knowledge and information? What motivates stakeholders to collaborate for circular economy?

Research field:	Business
Supervisors:	Prof. Dr. Wolfgang Dieter Gerstlberger Dr. Merle Küttim
Availability:	This position is available.
Offered by:	School of Business and Governance Department of Business Administration
Application deadline:	Applications are accepted between June 01, 2023 00:00 and June 30, 2023 23:59 (Europe/Zurich)

Description

In the today's world confronted by deterioration of the environment, overconsumption of natural resources and ecological, geopolitical and financial insecurity, there is an obvious need to rethink, redesign and utilize new business models, so companies act in a more efficient and environmentally friendly way, and by that benefit economy, society and environment. The model circular economy is an alternative concept to confront these challenges and improve environmental protection by decoupling economic activities from natural resource overconsumption while preserving economic growth. But still most companies are struggling to readjust their business attitude and foster the transformation towards circular economy (Mauss et al., 2022). Circular solutions go along with collaboration and circular innovation depends on a network of stakeholders (Eisenreich & Füller, 2023). By intensifying collaboration, companies can gain the ability to boost their innovative capabilities, which may lead to new products, solutions and process improvements (Clausen, 2013). Open innovation is a model that implies the use of external and/or internal knowledge flows as a mean of accelerating innovation processes and is based on sharing the competencies and collaboration (Bogers, 2019). Combination of two models – open innovation and circular economy, has the potential to support the transition towards circularity, but still is a recent phenomenon with several research gaps (Eisenreich et al., 2021; Jesus & Jugend, 2021).

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List of references:

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- Mauss, N.-A., Thiemt, F., & Fottner, J. (2022). Circular Transformation Pathways in the Manufacturing Industry: A Systematic Literature Review. IFAC-PapersOnLine, 55(10), 810–815. https://doi.org/10.1016/j.ifacol.2022.09.511

Responsibilities and (foreseen) tasks:

- Compile an analytical framework for examining combinations of open innovation and circular economy in different business domains
- Make a theoretical contribution in the field of open innovation to circular economy
- Analyze sustainable development and regional features in Estonia and beyond
- Map possible cases, collect data and develop qualitative and quantitative studies within the Estonian regional and international contexts
- Contribute to qualitative and quantitative data collection by conducting interviews and surveys
- Develop proposals and suggestions for practical business application
- Participate in the research and practitioner workshops where project findings are presented
- The candidate is also expected to engage in small-scale teaching and supervision as well as active participation in the department's activities.

The candidate is expected to have

- a master's degree in social sciences
- a clear interest in the topic of the position
- excellent command of English
- strong and demonstrable writing and analytical skills
- proficiency in qualitative and quantitative research analysis
- capacity to work both as an independent researcher and as part of an international team
- capacity and willingness to provide assistance in organizational tasks relevant to the project

The following experience is beneficial:

- Working knowledge of SPSS Statistics, MAXQDA or similar

The candidate should submit a research plan for the topic, including the overall research and data collection strategy. The candidate can expand on the listed research questions and tasks and propose theoretical lenses to be used.

We offer

- 4-year PhD position (employed as an Early-Stage Researcher at the Department of Business Administration) in a strong team of researchers with international publication records and experience in leading and participating in pan-European research consortia.
- The chance to do high-level research in one of the most dynamic sustainability contexts globally
- Opportunities for conference visits, research stays and networking with globally leading universities and research centers in the fields innovation studies
- All PhD positions are guaranteed a gross income of at least 1718 EUR and Estonian national health insurance.

About the department

Tallinn University of Technology (TalTech) is an international scientific community with approximately 9,000 students and 2,000 employees, one of the largest universities in Estonia that is the leading EU country in digitalization. The strengths of the university are wide multidisciplinary study/research interests, modern research and study environment as well as strong collaboration with international educational and research institutions. TalTech is aiming to be an organization leading the way to a sustainable digital future.

The research carried out at the **Department of Business Administration** in the School of Business and Governance in TalTech deals with various aspects of business – entrepreneurship, sustainability, knowledge and technology transfer, operations and strategic management, digitalization, marketing, supply chain management, accounting and performance management. The School has over 200 employees.

The department is highly internationalised. Its staff have been involved in a multitude of international research projects with the EU (INTERREG, COST, Horizon Europe etc).

Additional information

For further information, please contact Professor Wolfgang Dieter Gerstlberger wolfgang.gerstlberger@taltech.ee and visit https://taltech.ee/en/department- business-administration and https://taltech.ee/en/phd-admission

TalTech has a green and one of the most compact university campuses in Europe that includes the Tehnopol Tallinn Science Park. Low hierarchy, academic freedom and a balanced work and family life are valued at TalTech. The university provides individual development and training opportunities, material and non-material tokens of acknowledgement, sporting opportunities at TalTech Sports Club and all-staff activities.

TalTech as an employer brings together representatives from a wide range of disciplines - engineers and economists, business and biotechnology, and data scientists - with a common mission to develop Estonian higher education and research. Keywords that characterize TalTech today are rapid development, interdisciplinarity, and internationalization. The university has an international working environment and the working languages are English and Estonian.

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