Circular Business in the Textile Industry

Master thesis at Vividye

Vividye is a Gothenburg based startup company, located in the Chalmers E-village. We are a growing team of business developers and chemists, working with a technology that stems from years of research at Chalmers University of Technology. During 2022, we have launched our first products in collaboration with Gina Tricot and Way Out West.

The textile industry is one of the most polluting industries, responsible for 10% of global greenhouse gas emissions. The largest impact comes from the production step, where high demand for fresh water, agricultural land and chemicals have a large negative impact on the environment. The most important key in order to reduce this impact is to prolong the lifetime of clothes and reduce the need for pristine fibers.

At Vividye, we are developing removable textile prints that enable reuse and recycling of textiles. By removing a print, the lifetime of the textile is not limited by dated designs or logos and it can also serve as clean material streams for textile fiber recycling.

The textile industry is lacking the infrastructure to be able to solve the over-consumption of textiles, but new legal regulations, technical innovations and changing consumer behavior is pushing the change towards a more sustainable value chain. Since the industry is changing fast, few fully circular textile systems have been developed fit for the latest legal regulations and innovations.

Project description

The purpose of the project is to provide a circular business model for pioneering textile innovation, to be able to make an actual environmental impact through new innovation. The development of the business model will involve questions around:

- Traceability of textiles, from production to post-consumer - How will traceability be integrated into the business model?
- New national and European regulations for textile waste handling - How will the model be affected by current and coming legal regulations?
- Material flows of textile collection/handling - How will recollection of textiles after use be done?
- Financial feasibility of business model - How does the value chain need to look like to be able to provide a profitable business?

Additional information

The master should be performed during spring 2023, covering 20 weeks and representing 30 ECTS. We are encouraging the student/s to partly conduct the thesis work from the Vividye office at the Chalmers campus, Läraregatan 3.

Contact information

Apply November 30th at the latest by email, attach resumé. Applications are processed continuously.

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