Designing Sustainable Design Methods

Masters graduation or research project



The problem: Today, integration of sustainability into product development is often haphazard and ineffective. To create meaningful improvements in impact without spending too much time and effort, and ideally with improvements in business success, companies need to better integrate sustainable design methods and tools. This could happen by redesigning design methods by remixing pieces of existing design methods and tools in new ways, or by redesigning a company's product development process to better integrate existing sustainable design method(s) as they are.

Project goal: This project aims to work with a product development company (either manufacturer or consultancy) to redesign their design process to better integrate sustainability tools and methods. This should take a human-centered design approach for co-creation of the new development process, by treating existing sustainable design methods and tools as prototypes to user-test and iterate in combination. It can be done by teaching the company development team different design methods, getting their feedback on what they value and criticize in each, and trying different combinations with them to maximize impact while minimizing burdens of time and effort, and finding synergies with other business values such as cost, quality, marketing, legal concerns, etc. Significant work has already been done in this area, and the professor can assist with teaching the company design methods. The deliverable will be a document detailing the company's new product development process, with quotes from the company describing why they think it will succeed, and evidence from their trials during the co-creation process.

Company partner: No industry partner is guaranteed, but connections exist to several US design consultancies and product manufacturers. Students are very welcome to recruit their own companies.

Skills required: Applicants must have experience with the design methods and tools they work with. Some options include life cycle assessment, Cradle to Cradle, biomimicry, Whole System Mapping, The Natural Step, and more. Time commitment required is a graduation project or a research project of 9 ECTS.

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