Editorial: Sustainable Design

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This year we have a spread of papers that address everything from products to architecture to fashion. However, there are a number of themes that run throughout all of these. Firstly, the need to move towards a circular economy within all these disciplines comes through as a strong driver of research topics and the strategies selected to explore them. This seems to go hand in hand with a greater emphasis on systems design, be it a focus on product service systems, or a less tangible nod towards systems thinking through the introduction of repair (Lefebrve) and Use2Use strategies (Selvefors). Secondly most of these papers focus specifically on the user, and the need to fully understand them, and their potential to contribute towards sustainable approaches.

Firstly, Bosserez et al discuss taking a user-centred approach for resource efficient buildings which considers dynamic residents and varying conditions through the seasons. They propose taking a user centred approach to reducing the energy demand of buildings in order to afford resource savings during renovation. They use student projects as case studies to analyse different scenarios and conclude that efficient occupant behaviour and contribute to the energy efficiency of a building.

Next Petrulaityte et al present an exploration of Distributed Manufacture and the role it may have in improving the implementation of product service systems. Their work has resulted in the development of a PSS +DM design tool that has the potential to support PSS solutions development process. Then Bakirhoglu et al introduce their first internship programme at the University of Limerick. The internship aims to build capabilities for Circular Design and highlights the potential for these through real-life innovation challenges. We then take a short dip into fashion, where Raebild and Bang discuss furthering sustainable strategies for seasonal fashion collections.

Our last two papers bring the focus back to the user, and the goal of moving to circular product design. Lefebvre’s research supports a circular economy through an investigation of user driven repair of consumer products. She takes a user-focussed approach to the subject area to highlight factors that hinder or support repair propensity in users. Finally, Selvefors et al argue the need for a re-framing of circularity from a user’s perspective, considering different consumptions models that may be available to them. They propose tighter ‘Use2Use’ loops and highlight preconditions that enable these consumption models to occur.