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Design Thinking in the Swedish Wood Products Industry as Enabler for Sustainable Innovation

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The idea of non-design professionals applying design methods and processes (often referred to as design thinking, or DT) as an approach towards problem solving and innovation is receiving increasing interest. This paper will focus on the use of DT as an enabler for sustainable innovation. Research has shown that integrating DT can contribute to the capability of companies to deal with complex challenges and to increase their rate of innovation. Thus far, research on DT has mainly focused on user-centred approaches and the needs of the individual. However, focusing on *design for sustainability* an extra dimension needs to be added in order to integrate environmental and societal considerations as well.

The Swedish wood products industry has stated the ambition to change towards sustainable practices. Wood, as a renewable material and carbon sink, offers good conditions to create sustainable solutions, but currently companies do not fulfil this potential due to a lack of customer knowledge and the inability to change existing processes and business models. Therefore, different visions for the future have been developed where the sector provides user value while also benefitting society and environment. However, these visions are rather intangible and lack a clear direction of how to achieve this. Traditionally, the wood sector has focused on improving production technologies, but with the call for different, more sustainable products, services and business models, these old patterns will not allow the industry to move forward.

Although theory provides strong arguments for the use of DT to enable sustainable innovations, the approach is not widespread in the Swedish wood sector, which often is characterized as conservative. The purpose of this study is to identify where and why gaps occur between the actual practice within the wood sector and the theoretical models on DT.

First, through a literature review, potential opportunities, challenges and processes of DT described in theory will be presented. Secondly, the paper presents results from interviews with ten producers of wooden consumer products aiming to identify the opportunities and challenges which the companies perceive. This study focused on small and medium-sized enterprises with little or no experience working with design as a method to increase sustainable innovation. The companies develop products like wooden patios and wardrobes and they face increasing global competition. The interviews focused on the current processes in product development from initial stages to the creation of the final concept.

This study presents a better understanding of the gaps between theory and practice regarding the implementation of DT. Specific knowledge on companies' needs, wishes and limitations with the use of DT is currently not available. The plan is for this research to guide the development of new methods and tools, better suited to the industry, and to further stimulate and enable the use of DT as an approach to create more sustainable solutions.