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Forest sector circular economy development in Finland: A regional study on sustainability driven competitive advantage and an assessment of the potential for cascading recovered solid wood

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ABSTRACT

The circular economy is among the key contemporary policy goals both in Europe and in Finland. Therefore, sustainability and life cycle thinking are increasingly the center of attention. In addition, wood and bioproduct companies have faced many challenges in Finland and the closure or restructuring of many large-scale industrial sites have caused many regional changes for both society and the private sector. The EU's targets to promote the circular economy and become a recycling society bring about many changes and provide new opportunities. This study addresses two different components of circular economy development in the forest sector through case studies. The first case study was a regional study on sustainability driven competitive advantage within forest sector companies and the method applied was a questionnaire survey targeted at both large and small forest sector companies in the Kymenlaakso region. The second case study was about the potential for cascading recovered solid wood in wood products and wood working companies and the method employed was interviewing company and association representatives. The findings of the first case study indicate that material and energy efficiency are important in the context of circular economy and bioeconomy development. They also indicate the importance of EU and national level public steering and sustainability considerations and that there is a need for more focus on life cycle thinking in the future. The findings of the second case study indicate that without inducements, legislative obligations or demand from the construction sector or other customers, the potential for the wide-scale cascading of solid wood in Finland is very limited. The most promising cascading opportunities are the reuse and preparing for reuse of wooden packages and furniture. In addition, the results suggest that life-cycle-assessment for different end-of-life scenarios for solid wood products could give more reliable information about different options from an environmental point of view.

Keywords: forest sector; circular economy; sustainability; competitive advantage; cascading; recovered wood

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