



## – Modeling the Impact of Innovations on the Circular Economy –

### Background

Paper and board are unique products being both the end products as well as the main raw materials in the next cycle; thereby creating a circular economy. In order to ensure long term profitability, the industry needs to focus on resource efficiency and creating innovative products and value out of the streams discarded from the main production line due to resource efficiency reasons.

Currently, the impact of product or process development in the paper mill can to some extent be determined for energy or material efficiency. However, the current tools are not able to incorporate impacts of novel innovations making the total value chain (or circle) more resource efficient. The impact on e.g. the energy use outside of the paper mill or reduced quality in recycling needs to be considered and optimized.

### The REFFIBRE project

In this EU-funded project, tools will be developed for the paper and board industry that can instantly provide the needed information regarding the impact of new production processes, raw material input and product innovations, as well as the influence on the recyclability of the end product. The tools enable paper makers to consider innovations affecting profitability in the value chain.

REFFIBRE has started in November 2013. Using parallel tracks, the project will start developing various tools to cover different parts of the value chain. Once the tools are developed, they will be tested by comparing the modeling results of the environmental impact of various innovative concepts with the results from actual demonstration tests. These innovative concepts include fractionation of input materials and production of novel products from side streams.

### Who are we?

The REFFIBRE consortium consists of paper makers, knowledge institutions, technology developers and other organisations in order to cover all needed aspects. Coordinator Dr. Ulla Forsström, VTT (Finland), other partners TUDA (Germany), PTS (Germany), Itene (Spain), Bumaga (Netherlands), CEPI (Belgium), Vrancart (Romania), Alucha (Spain), Utzenstorf (Switzerland), Holmen (Sweden).



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