

## CESME Good Practice Description

### Circulation in Kohiwood Wood Processing Factory

Presented by JPYP Business Service, Finland

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<p><b>Brief Description of Good Practice</b></p> <p><i>Advanced circulation and utilization practice of side products in a wood processing company Oy Kohiwood Ltd, Soini Finland.</i></p> <p><i>The factory has a sawmill and about half of the sawmill production is further processed in integrated production plant to wooden laminated glulam-panels.</i></p>
<p><b>Problems/challenges and how they were overcome</b></p> <p>All the different kind of side products of the process must be able to use in circulation, because the quantity of the material flow is so big, that it would not be possible handle it as waste.</p> <p>The factory is operated trough the year, but the side products are partly used as biofuel in heat production, which have more demand in wintertime than in summertime. It causes need for storing and alternative ways to utilize the side product material flow.</p> <p>Different kind of side products needs different kinds of partners and different technologies for using, so there must be large co-operation partner network for complete circulation.</p>
<p><b>Impact from Good Practice</b></p> <p>Received wood to the plant is abt. 1 300 fixed cubic meters daily. Side products:</p> <ul style="list-style-type: none"> <li>- Abt. 200 cubic meters of bark daily (used as biofuel partly in own power plant, partly sold to other power plants)</li> <li>- Abt. 1 000 loose cubic meters of wood chips (sold to pulp mill for pulp and paper production)</li> <li>- Abt. 150 loose cubic meters of sawdust daily (partly used for wooden pellet production, partly used directly as biofuel in Kohiwood's own and customers' power plants.</li> <li>- The processing produces also grinding dust and woodchips from planing machines, which are used in wood pellet production.</li> <li>- The produced glulam timber panels are quality classed by automated robot-machine vision camera based quality control system to ensure optimized utilization for the production</li> <li>- All the timber material unqualified to final commercial product in the production process is crushed to wooden biofuel.</li> </ul>



All the heating energy for drying the timber in kilning rooms and heating of the factory plant facilities are produced by burning the wooden side product biofuel in the power plant.

The sales price of the side products is economically very significant part of the company's financial income.

#### **Lessons learnt from the Good Practice**

There must be large partnership network for circulation process, because the capacity demand of partners is varying seasonally, but factory's production is around the year. Some partners sets different kinds of requirements for processing the side material to be suitable for their technology, so there must be good partnership optimize the benefits.

Production of the sawmill and glulam timber panes would not be profitable without the sales prices got from side products, so the optimized and effective way to utilize the side product circulation is a key business factor for the Kohiwood company.

#### **Recommendation you want to stand**

Circulation must be an ordinary part of the business process in wood processing industry in order to enable profitable business and avoid waste and environmental problems.

#### **For more information**

[www.kohiwood.com](http://www.kohiwood.com)