

WOODVALUE

Value creation in wood supply chains

Project Start Month: 11/2007

Project Duration: 38 months

Project Consortium

Project Coordinator

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Project Partners

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Project Objectives

The project aims to develop a standardized methodology at European level to define, measure and value the efficiency and profitability of key wood supply chains - from standing trees to end consumer products. The methodology developed shall be customized to fit the individual forestry supply chains of the partner countries' business environments and tested in assorted key supply chains. Methods to optimize these wood allocation problems will also be developed and tested.

Project Approach

The four workpackages (WP) of the project are:

- WP1) Definition and quantification of the most important wood characteristics and methods to convert wood information on wood properties to log grades or value indices (later referred as "Wood properties")
- WP2) Methodology to calculate process costs and revenues of the most important wood industry branches ("Industrial processes")
- WP3) Identification of costs and cost modeling of logistic processes in key wood supply chains ("Logistic costs")
- WP4) Development of allocation models and value creation analyses through demonstrating case studies in participating countries ("Case studies/customization")

The project organisation includes six research bodies and numerous industrial partners and stake holders (or governmental co-partners). The consortium is comprised of a rich variety of expertise from the key areas of the research theme. Participating institutes and enterprises have different roles in each workpackage. Workpackage coordinator (C) is responsible in administrating and coordinating the workpackage in question. Scientific partners (SP) are research bodies that are responsible to plan and execute the research activities as well as customize/disseminate the research results together with their own industrial partners. Those research bodies that are not actively participating in the work of the workpackage in question will have a role as a Scientific observer (SO). Corresponding industrial enterprises that are not actively participating in that workpackage will have a role as industrial observer (IO).

Each workpackage produces documents, ready-to-use calculation sheets and instructions to apply these calculations in any mill within the partner countries. Industrial and scientific partners may then disseminate/customize the results of each workpackage individually in their own purposes, or calculate more demanding comparisons and optimizations for certain wood industry areas.

Expected Project Impact

Researchers and industry representatives will be able to use the results of this project as a reference and raw models for cost and revenue calculation for their own processes. Cost and revenue calculations and value adding are increasingly receiving attention from forest industry companies.

The project will provide new information about variations of wood characteristics and assessment of their quality and their effect on final products. The models developed in the project will meet the need for accurate forecasting of different wood properties demanded by wood processing industries to pre-calculate production costs and end product values.

The project will provide a standardized methodology to measure, analyze and compare wood conversion costs and revenues. The project will specifically concentrate on wood property – product value relationships. Methodology will provide a objective tool to compare the value of certain wood in alternative wood conversion processes.

Logistic systems will be analyzed and described thoroughly. This will give industry clear understanding about the bottlenecks of the current logistic systems and bring new thinking into this area. At minimum, industry is given standardized methodology to predict productivity of harvesting and transportation. A cost management system is also demonstrated and documented that calculates the cost of harvesting, transportation and storing of wood.

Whole optimization methodology is developed and demonstrated through case studies. The methodology can integrate wood properties, transportation costs, production costs and revenues in a manner that facilitates comparison of the alternative use of forest resources or certain wood lots. The case studies will reveal the long-term relevance of creating tailor-made wood supply chains. The relationship between a wood property and end product is clearly demonstrable but wood supply chains still need to be more oriented toward specific products.

Each workpackage produces ready-to-use methodology and documents that industry can utilise in their own purposes. A company may then choose whether to utilise the results of one or two WPs or to construct optimization for the whole logistic system or business. Workshop with national project partners will be hosted to integrate the partners in the development and validation of the models. The results of the project will be published in national journals and international journals. Presentations on the project and intermediate results will be given on congresses about forest research.

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