# Innovate wood

**Multi-sectorial database, model system and case studies,** supporting innovative use of wood and fibres

## General objectives

Improved knowledge-base and new tools, supporting the development and production of new innovative, eco-efficient products with a high content of further converted wood or wood fibers

## Results

- Database with related information about softwood properties of importance for different wood-based industries: structural and mechanical wood properties, chemical composition, fiber properties and fiber matrix compatibility in composites
- Integrated model system for selection of suitable wood and fibres for different products and for optimized production
- Tested tools through case studies in different industries: wood components, specialty pulps and composite flooring
- Strengthened innovation system through networking

## Partners

STFI PACKFORSK METLA PERGO SÖDRA VTT UNIVERSITY OF HELSINKI

## Contact persons


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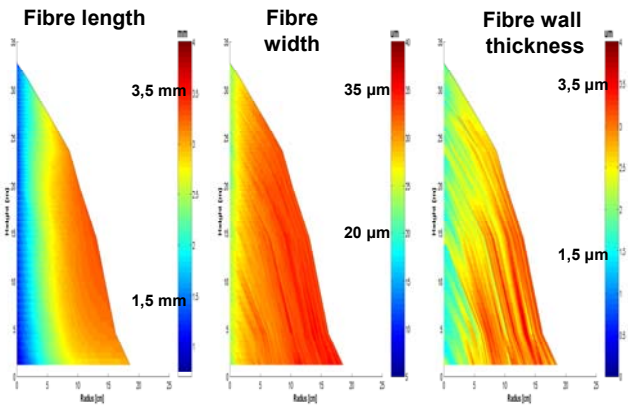
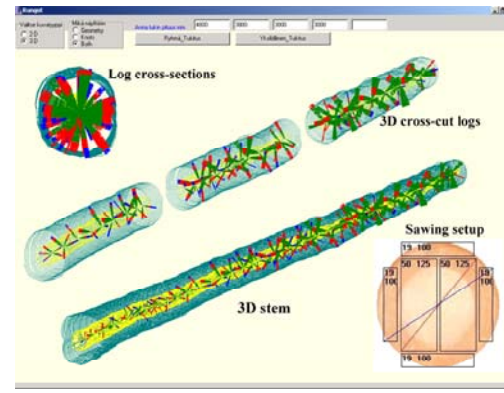
Wood Material Science Research Programme

## Multi-sectorial knowledge-base and tools

Samples | Measurements | Database | Integrated models




*Example: Fibre dimensions*




*Example: Internal stem structure*

### Material properties

- stem shape and structure
- wood properties
- fibre properties
- composite properties
- chemical composition

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### Products and processes

- optimal allocation
- secondary conversion
- components
- specialty pulps
- fiber composites

## Case studies

**Case 1** Wood-based composite flooring

**Case 2** Customer designed fibres

**Case 3** Wood selection for specific products

**Case 4** Profitable secondary conversion