## **SMALLWOOD**

Small diameter wood utilization with innovative stand management for multifunctional forests and a growing sustainable bio-economy

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**Countries involved**: Sweden and Finland from north + Spain and Slovenia from South



**Duration**: from 2019 till 2022



**Total budged**: 1.225.000 €



Thematic research area: Innovative sustainable management of multifunctional forests



**Overal objective:** to develop and evaluate new technologies, business and operational models that can support a sustainable management and utilization of different types of small diameter wood.



**Target groups:** forest owners, forest contractors, Forest practitioners, general public

## SMALLWOOD

## **Overall objective:**

To develop and evaluate **new technologies and new business and operational models** that can support a sustainable management and utilization of different types of small diameter wood.

The hypothesis are that Small Diameter Stand (SDS) management and the studied techniques have an interesting innovation potential in terms of economy, social acceptance, sustainability, SME business opportunities and rural development especially if identified bottlenecks are solved.

## In the long-term, our aims are to:

- 1. improve the techniques and work methods up to the level where a profitable business can be built on SDS management and utilization,
- 2. develop strategies for SDS management that is sustainable, with a positive environmental profile, and long-term added values for a number of actors in the society.

## SMALLWOOD Project WPs

#### WP1 Project management and monitoring

SDS1 Conv. thinning stands SDS2 Coppice stands

SDS3 Fire prev. bush areas

SDS4 Linear areas

### WP2 Harvesting- and supply systems for innovative and sustainable management of multifunctional SDS

Functionality, productivity, possible logistic systems, future development of treated stands, economic system analysis, applicability within different management systems

#### WP3 Socio economic aspects of the SDS stand managements

Private forest owner motivation, acceptance from the public opinion, business opportunities and rural development.

#### WP4 Environmental assessment of the SDS managements

Tree damages, soil damages like rutting and soil compaction, material and energy consumption and emissions to air, water and soil.

WP5 Overall analyses of the economic, social and environmental values of the SDS managements Analyses that include results from traditional economic system analysis (WP2), socio economic analyses (WP3) and LCA analyses (WP4) into multi criteria decision analyses.

WP6 Communication and project transnational outreach

## The project focuses on four stand types

- 1) Conventional thinning stands with small diameter trees;
- 2) Traditional coppice stands;
- 3) Areas for forest fire prevention with small trees or bushes;

4) Linear cleaning areas like roadsides, power line corridors and strips just outside agricultural farm land





## Two types of technologies will be studied and further developed

- 1) Multi-tree harvesting technique combined with the working method "Boom corridor Thinning"
- 2) Combined harvesting and chipping technique









# Contribution of SMALLWOOD to the development of the forest based value chain

The Smallwood project will contribute to the transforming of the global economy from a dependence on fossil fuels and non-renewable materials to a sustainable bio-based economy

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The Smallwood project has a high degree of originality and degree of innovation, as it brings together aspects such as **technique and working method developments** with **forest owner motivation** as well as **SME business development**, **environmental impacts** and **forest fire risk mitigation** into one project that focuses on a specific forest biomass.





# **ForestValue**