TECH4EFFECT

Techniques and Technologies for Effective Wood Procurement

http://www.tech4effect.eu

Type of Action: Research & Innovation Action

Value Chain: VC2 – forest-based

Start date: 01 October 2016

End date: 30 September 2020

BBI JU contribution: € 4,999,902.50

Summary

As we strive for a genuinely circular economy, greater efficiency in how we manage our renewable resources becomes increasingly important. This is particularly true of Europe's forests – a major source of sustainable materials and essential to Europe's ambitions as a leading bio-economy.

Increased biomass demand generates a need for more accessible forests to maintain a sustainable supply and maximise the value of this resource. TECH4EFFECT aims to deploy technological advances to advance forest management to a new level. The project will increase efficiencies including both lowering the cost and the environmental impact of harvesting from forests.

By developing a state-of-the-art knowledge-based decision-support system aimed at increasing efficiency, TECH4EFFCT will offer a novel way to exploit the increasing amounts of data generated in modern forestry. TECH4EFFECT seeks to implement the developed efficiency management tool in five participating countries.

Objectives

- To improve the efficiency of European forest management by enabling a data-driven knowledge-based revolution of the European forest sector while also providing key incremental improvements in technology
- To increase access to wood resources with focus on accelerated growth rates, improved silvicultural operations and improved business models for more efficient transactions in forest management
- To increase the efficiency of forest harvesting and collection with focus on infrastructure improvements, forest machine data exploitation, and improved work practices
- To reduce and monitor soil impacts from forest operations through machine technologies and machine mounted sensors combined with information technology
- To develop the TECH4EFFECT web-based benchmarking tool to collect and

Expected impacts

- Improving efficiency in silviculture and harvesting operations
- Improving accessibility to wood resources leading to a significant increase in productivity in forest operations over a representative period of time
- Increasing forest operations output minimising environmental impacts: reducing soil disturbance, efficiently & more efficiently extracted grot (residuals).
- Reducing fuel consumption in the forest harvesting process by at least 15%.

Consortium

- NIBIO (Norway)
- Consiglio Nazionale delle Ricerche (Italy)
- European Forest Institute (Finland)
- Universitaet fuer Bodenkultur Wien (Austria)
- National Resource Institute Finland (Finland)
- University of Copenhagen (Denmark)
- RTDS Association (Austria)
- ALU-FR Albert-Ludwigs-Universitaet Freiburg (Germany)
- NORSKOG (Norway)
- Kuratorium fur Waldarbeit Und Forsttechnik (Germany)
- Ibensoft ApS (Denmark)
- Österreichische Bundesforste (Austria)
- Skovdyrkerforeningen Øst (Denmark)
- PONSSE (Finland)
- CONAIBO (Italy)
- SGGW, Warsaw University of Life Sciences (Poland)
- Latschbacher GmbH (Austria)
- KONRAD Forsttechnik GmbH (Austria)
- STATSKOG SF (Norway)

Communications Coordination

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systematize data from forest management and provide a foundation for knowledge-based management of European forest operations in the future

To implement TECH4EFFECT in a global European version and in country specific adaptations through industrial leadership

To assess the environmental and socio-economic performance of the project results for the whole wood value chain

Project coordination

Organisation name: NIBIO (Norway)