



FORWARDER 2020 SUSTAINABLE AND SMART LOGGING

PROJECT SUMMARY

Forwarder2020 is a Horizon 2020 innovation project with the aim of improving the sustainability of wood production and delivery as well as operational forest management and planning. Within the project innovations for more efficient forwarders, essential wood extraction and transportation vehicles, will be developed and tested in real conditions.

With a total budget of almost 3M€ (2 M€ funding) 14 European partners from industry and research will work on five innovative modules for forwarders aiming at improving efficiency of the machine, reducing the fuel consumption and minimizing the impact on the environment and on the operators' health. Over the course of three years (2016-2019) the Forwarder2020 partners will gather their expertise to advance diverse technologies, which will contribute to smart and sustainable logging operations using innovative forestry machines.

For more information on Forwarder2020 and to stay updated on the project's activities and progress, please see the website www.forwarder2020-project.eu

PRESS RELEASE

Horizon 2020 project Forwarder2020: Smart Forwarder for sustainable and efficient forest operation and management.

The project Forwarder2020, co-funded by the European Commission, took up its work in October 2016 for 3 years of effort towards the development of innovative technologies for smart and sustainable supply of quality wood.

In the framework of Forwarder2020 fourteen European industrial and research institutions have joined their forces to develop an innovative concept to improve efficiency and eco-friendliness of forest operations. The objective is to develop five innovative modules for forwarders, an essential wood extraction and transportation vehicle, and integrate them into two prototypes that will be tested in real operating conditions in four countries (Germany, Lithuania, Scotland and Romania). The innovations targeted concern a more efficient power-split hydrostatic-mechanical transmission, a hydro-pneumatic suspension, a new hydraulic system for the crane with energy recuperation, a bogie axle with three driven wheels for the timber load and a new monitoring system for documentation of process data.

The combined effect of these innovative modules will be to reduce the fuel consumption by 30% and the impact on the soil (reduction of rut depth and dynamic wheel load) by 30%. They also allow more precise planning of the tracks and documentation of the loads carried on. Altogether the innovations will contribute to reduce the environmental impact of forest management and harvesting operations while cutting operating costs and reducing the risks of occupational disease for forest operators. In the end, the company HSM and the consortium expect to supply to the market a unique and modular



system of competitive high-end solutions which offers the customer to choose its equipment and then bear no higher costs for the modules not chosen.

“In the effort of rendering the forest operations more sustainable, forwarders are of particular interest because these forestry machines have the highest wheel-load and the biggest impact on unpaved forest soils. They also bridge big travelling distances between the felling points in the stand and the road side timber depots. The reduction of the fuel consumption, of the impact of the machine on the soil and on the health of the operators through the Forwarder2020 innovative modules will then be of prime importance not only for the sustainability of the logging but also on the economic potential of the forestry companies, our clients. “, states Mr. Felix Prinz zu Hohenlohe-Waldenburg, coordinator of Forwarder2020 project and CEO at Hohenloher Spezial Maschinenbau GmbH & Co KG (HSM).

The project has been officially launched on the 6th of October 2016 at the HSM premises in Wolfegg. It has an overall budget of 3 M€ and is co-funded by the European Commission with 2 M€ under the European Research and Innovation programme Horizon 2020. Currently the development of the innovative modules and their integration on the prototypes are in progress. The first prototype integrating three of the five modules, will be ready for the first in-house tests by January 2018 and for the first operational tests in Scotland by April 2018.

The consortium of this EU-funded project is composed of partners from six European countries (Germany, Italy, Lithuania, Romania, Switzerland and the United Kingdom). Their expertise covers the whole value chain, from components development to operational use of the machine in the forest. Six industrial partners (Hohenloher Spezial Maschinenbau GmbH & Co KG, Roteca SRL, Dana Rexroth Transmission systems SRL, Forstware Informationssysteme GmbH, Hydac System GmbH and Bosch-Rexroth Ltd) work in close collaboration with expert researchers in forestry (Berner Fachhochschule, University Aleksandro Stulginskio in Kaunas and Transylvanian University of Brasov) and in mobile machines development (Karlsruhe Institute of Technology), specialists of innovation management (Steinbeis-Europa-Zentrum der Steinbeis Innovation GmbH) and three forest contractors (Forstdienstleistungen Hegenbarth, Treforex SRL and CSP Forestry Ltd). The consortium is coordinated by the forestry machine builder HSM, which guarantees a strong innovation oriented approach. The involvement of six industrial partners and their intensive interactions with consultancy companies and research organisations shows the high willingness of the consortium not only to demonstrate the sustainable solutions for the forest sector, but also to industrialize them and make them ready for the market.

For more information please visit the project’s website www.forwarder2020-project.eu

And follow the project on [twitter](#).

Project duration: 10/2016 – 09/2019

Participant countries: Germany, Italy, Lithuania, Romania, Switzerland and the United Kingdom

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Forwarder2020 is coordinated by the Hohenloher Spezial Maschinenbau GmbH & Co KG in cooperation with 14 partners: Rotecac srl, Dana Rexroth Transmission Systems srl, Bosch-Rexroth Ltd, Hydac System GmbH, Berner Fachhochschule, University Aleksandro Stulginskio in Kaunas, Transylvanian University of Brasov, Karlsruhe Institute of Technology, Steinbeis Innovation GmbH, Forstdienstleistungen Hegenbarth, Treforex srl, CSP Forestry Ltd and Forstware Informationssysteme GmbH.

