



Forest and Wood 4.0 - the forest cluster becomes smart

The Center of Excellence for Forestry 4.0 is developing Industry 4.0 digitalization concepts for the forest and wood cluster. The driving force behind this approach is a closely cooperating working group of companies, research centers and the Forestry Education Center North-Rhine Westphalia as a practical testbed. New, intelligent and decentrally acting machines, devices, services and people, will enable the cluster to optimize its complex value-added networks, develop new business models and meet current challenges from ecology, economy and climate change. Existing approaches address the complexity of structures and processes, and the conflicting demands on forest management only insufficiently. To "smartify" the forest and wood cluster, existing competencies from industry, science and administration must be bundled: The goal of KWH4.0 is to create a know-how base and infrastructures, and to implement forest and wood 4.0 components via innovative Smart Forest Labs. The Smart Forest Labs serve as experimental forestry laboratories in which developed components, systems and processes are tested, standardization advanced, concepts disseminated, and actors trained. Developed concepts and standards are continuously published as practical recommendations, a first version of the communication infrastructure S3I (Internet of Things application) has been established. In addition, there is an increasingly smart fleet: forestry machines have been upgraded to retrieve digital information (GPS position, fuel consumption, production data, etc.) and at the same time networked via alternative radio standards with machines in regions where mobile communication is not possible.

PODROBNOSTI

IZVOR LESA

--

TIP LESA

--

VRSTA OBRAVNAVANEGA LESA

--

VPLIV NA OKOLJE IN BIODIVERZITETO

Other solutions from the KWH4.0 network address sensor-supported forest monitoring in order to increase resilience against climate change.

VPLIV NA PRIHODKE

--

POTENCIAL IZKORIŠČANJA

--

VOZLIŠČE

Srednje-zahodno vozlišče

GOSPODARSKI VPLIV

--

POTENCIAL ZA MOBILIZACIJO

High, the KWH4.0 as a competence hub supports a wide range of projects and digital solutions, which in turn support wood mobilization.

TRAJNOST - VREDNOST

Zelo pozitivno

ENOSTAVNOST IZVEDBE

The KWH4.0 has received ERDF funding to start working. A challenge can be the core collaboration from both sides, forestry and ICT, needed to kick off activities.

ENOSTAVNOST IZVEDBE - OCENJEVANJE

--

KLJUČNI PREDPOGOJI

--

VRSTA DOGODKA, NA KATEREM JE BIL PREDSTAVLJEN TA BPI

Študijski obisk (T2.3)

VPLIV NA DELOVNA MESTA

--

STROŠKI IZVEDBE (EURO - €)

--

POTREBNO SPECIFIČNO ZNANJE

--

VEČ PODROBNOSTI

IZZIV

5. Izboljšanje gospodarske in ekološke učinkovitosti gozdne oskrbovalne verige

DOMENA

Inovativno upravljanje, digitalna vozlišča, grozdi

TIP REŠITVE

Modeliranje, DSS, simulacija, optimizacija

KLJUČNE BESEDE

--

DIGITALNE REŠITVE

Da

INOVACIJA

Da

IZVORNA DRŽAVA

Nemčija

OBSEG UPORABE

Regionalni

ZAČETNO IN KONČNO LETO

--

KONTAKTN PODATKI

LASTNIK OZ. AVTOR

RIF Institut für Forschung und Transfer e.V.

Frank Heinze

info@kwh40.de

POROČEVALEC

FBZ

Marie-Charlotte Hoffmann, Elke Hübner-Tennhoff

marie-charlotte.hoffmann@wald-und-holz.nrw.de

REFERENCES AND RESOURCES

SPLETNA STRAN

<https://www.kwh40.de/>

SPLETNA STRAN PROJEKTA

--

REFERENCA PROJEKTA

--

VIRI

--



PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

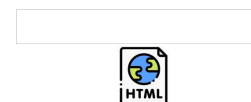
Rosewood 4.0

DATUM OBJAVE

11 Aug 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681



A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

