KWH4.0 | Center of Excellence for Forestry 4.0

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

PôVOD DREVA

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DRUH DREVA

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UVAžOVANý DRUH DREVA

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VPLYV NA žIVOTNé PROSTREDIE A BIODIVERZITU

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

DOPAD NA PRíJMY

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POTENCIáL VYUžITIA

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ROZBOčOVAč

Stredozápadný uzol

EKONOMICKý VPLYV

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MOBILZAčNý POTENCIáL

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

POTENCIáL UDRžATEľNOSTI - HODNOTA

Veľmi pozitívne

UľAHčENIE IMPLMENTáCIE

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.

UľAHčENIE IMPLMENTáCIE - HODNOTENIE

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KľúčOVé PREPOKLADY

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TYP PODUJATIA, NA KTOROM BOL TENTO BPI PREZENTOVANý

Návšteva v rámci štúdie (T2.3)

DOPAD NA ZAMESTNANOSť

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NáKLADY NA IMPLEMENTáCIU (EURO - €)

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POTREBA šPECIFICKýCH ZNALOSTí

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RIEšENá VýZVA

5. Zlepšenie hospodárskej a environmentálnej výkonnosti dodávateľských reťazcov v lesníctve

DOMAIN

Správa inovácií, digitálne uzly, klastre, využívanie (priebežné)

TYP RIEšENIA

Modelovanie, simulácia, optimalizácia

KľúčOVé SLOVá

--

DIGITALNE RIEšENIE

áno

INOVáCIE

Áno

KRAJINA PôVODU

Nemecko

ROZSAH APLIKáCIE

Regionálny/

ZAčIATOK A KONIEC ROKA

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REPORTéR

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REFERENCES AND RESOURCES

HLAVNá WEBSTRáNKA

https://www.kwh40.de/

PROJEKTOVá WEBSTRáNKA

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REFERENCIA PROJEKTU

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ZDROJE

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PROJEKT, V RáMCI KTORéHO BOL TENTO INFORMAČNý PREHľAD VYTVORENý

Rosewood 4.0

DáTUM ODOSLANIA

11 aug 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

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