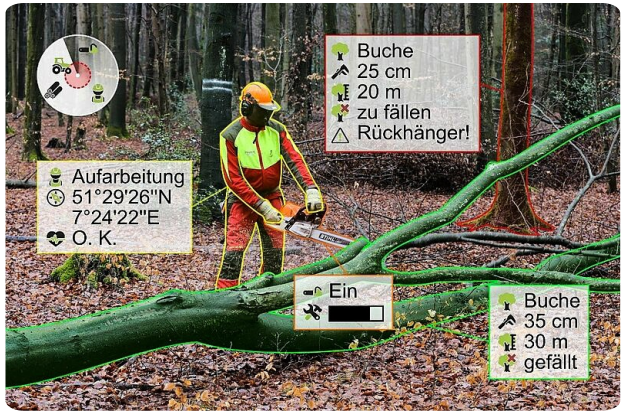
KWH4.0 | Center of Excellence for Forestry 4.0



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.

DETALLES

ORIGEN DE LA MADERA

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TIPO DE MADERA

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TIPO DE MADERA AFECTADA

--

IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

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

EFECTO SOBRE LOS INGRESOS

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POTENCIAL DE EXPLOTACIóN

--

HUB

Eje Centro-Oeste

IMPACTO ECONóMICO

--

POTENCIAL DE MOVILIZACIóN

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

POTENCIAL DE SOSTENIBILIDAD - VALOR

Muy positivo

FACILIDAD DE APLICACIóN

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.

FACILIDAD DE IMPLEMENTACIóN - EVALUACIóN

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PREREQUISITOS CLAVE

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TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

Visita de estudio (T2.3)

EFECTO SOBRE EL EMPLEO

--

COSTES DE IMPLEMENTACIóN (EURO - €)

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CONOCIMIENTOS ESPECíFICOS NECESARIOS

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MáS DETALLES

RETO ABORDADO

5. Mejorar el rendimiento económico y medioambiental de las cadenas de suministro forestal

DOMINIO

Gestión de la innovación, hubs digitales, clusters, explotación (transversal)

TIPO DE SOLUCIóN

Modelización, DSS, simulación, optimización

PALABRAS CLAVE

--

SOLUCIóN DIGITAL

Sí

INNOVACIóN

Si

PAíS DE ORIGEN

Alemania

ESCALA DE APLICACIóN

Regional/sub-nacional

AñO DE INICIO Y FIN

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REFERENCES AND RESOURCES

SITIO WEB PRINCIPAL

https://www.kwh40.de/

SITIO WEB DEL PROYECTO

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REFERENCIA DEL PROYECTO

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RECURSOS

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LOGO DE LA BUENA PRáCTICA

LOGOTIPO DE LA ORGANIZACIóN PRINCIPAL

KWH 4.0

PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood 4.0

FECHA DE MENSAJE

11 Ago 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY