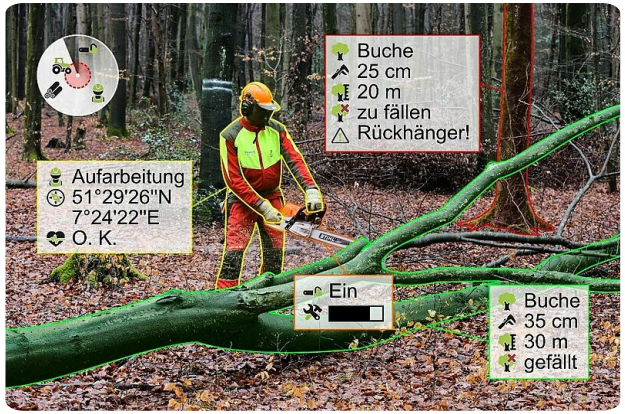
KWH4.0 | Center of Excellence for Forestry 4.0



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.

DETALHES

ORIGEM DA MADEIRA
--

TIPO DE MADEIRA
--

TIPO DE MADEIRA EM CAUSA
--

IMPACTE NO AMBIENTE E BIODIVERSIDADE
Other solutions from the KWH4.0 network address sensor-supported forest monitoring in order to increase resilience against climate change.

IMPACTE NAS RECEITAS
--

POTENCIAL DE EXPLORAçãO
--

HUB
Centro-Oeste do Hub

IMPACTE ECONOMICO
--

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

SUSTENTABILIDADE POTENCIAL - VALOR
Muito positivo

FACILIDADE DE IMPLEMENTAçãO
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.

FACILIDADE DE IMPLEMENTAçãO
--

PRE-REQUISITOS CHAVE
--

TIPO DE EVENTO EM QUE ESTE BPI TEM SIDO APRESENTADO
Visita de estudo (T2.3)

IMPACTE NO EMPREGO
--

CUSTOS DE IMPLEMENTAçãO (EURO - EUR)
--

CONHECIMENTOS ESPECIFICOS NECESSáRIOS

--

MAIS DETALHES

DESAFIO ABORDADO

5. Melhorar o desempenho económico e ambiental das cadeias de abastecimento florestal

DOMíNIO

Inovações na gestão , pólos digitais, agrupamentos, exploração (transversal)

TIPO DE SOLUçãO

Modelação, sistemas de apoio à decisão, simulaçã, optimização

PALAVRAS-CHAVE

--

SOLUçãO DIGITAL

Sim

INOVAçãO

Sim

PAíS DE ORIGEM

Alemanha

ESCALA DE APLICAçãO

Regional/ sub-nacional

ANO DE INíCIO E FIM

--

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REFERENCES AND RESOURCES

WEBSITE PRINCIPAL

https://www.kwh40.de/

WEBSITE DO PROJETO

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REFERêNCIA AO PROJETO

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RECURSOS

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LOGOTIPO DA BOA PRáTICA

LOGOTIPO DA ORGANIZAçãO PRINCIPAL

PROJETO NO âMBITO DO QUAL A FOLHA DE DIVULGAçãO FOI CRIADA

Rosewood 4.0

DATA DE ENTRADA

11 Ago 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY