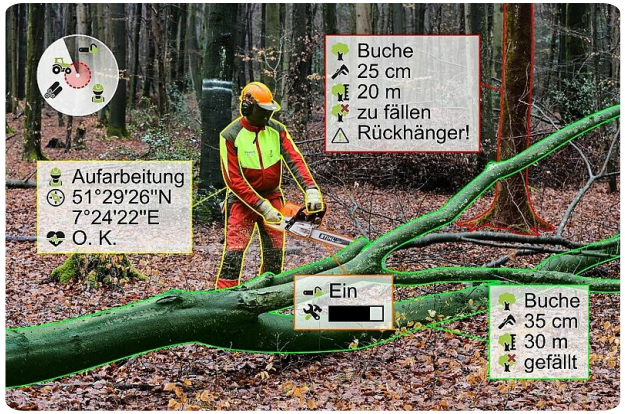
KWH4.0 | Center of Excellence for Forestry 4.0



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.

DETTAGLI

ORIGINE DEL LEGNO
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TIPO DI LEGNO
--

TIPO DI LEGNO IN QUESTIONE
--

IMPATTO SULL'AMBIENTE E LA BIODIVERSITà
Other solutions from the KWH4.0 network address sensor-supported forest monitoring in order to increase resilience against climate change.

EFFETTO SUL REDDITO
--

POTENZIALE DI SFRUTTAMENTO
--

HUB
Hub centro-occidentale

IMPATTO ECONOMICO
--

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

POTENZIALE SOSTENIBILITà - VALORE
Molto positivo

FACILITà DI IMPLEMENTAZIONE
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.

FACILITà DI IMPLEMENTAZIONE - VALUTAZIONE
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PREREQUISITI CHIAVE
--

TIPO DI EVENTO IN CUI QUESTO BPI è STATO PRESENTATO
Visita di studio (T2.3)

EFFETTO SUL LAVORO
--

I COSTI DI ATTUAZIONE (EURO - €)
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CONOSCENZE SPECIFICHE NECESSARIE

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Più DETTAGLI

SFIDA RISOLTA

5. Migliorare le prestazioni economiche e ambientali delle filiere forestali

DOMINIO

gestione dell'innovazione, mozzi digitali, cluster, sfruttamento (trasversale)

TIPO DI SOLUZIONE

Modellazione, DSS, la simulazione, l'ottimizzazione

PAROLE CHIAVE

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SOLUZIONE DIGITALE

Sì

INNOVAZIONE

Sì

PAESE D'ORIGINE

Germania

SCALA DI APPLICAZIONE

Regionale / sub-nazionale

INIZIO E FINE ANNO

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CONTATTI

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REFERENCES AND RESOURCES

SITO PRINCIPALE

https://www.kwh40.de/

SITO WEB DEL PROGETTO

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PROGETTO DI RIFERIMENTO

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RISORSE

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LOGO DELLE MIGLIORI PRATICHE

LOGO DELLA PRINCIPALE ORGANIZZAZIONE

PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood 4.0

DATA DI INSERIMENTO

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY