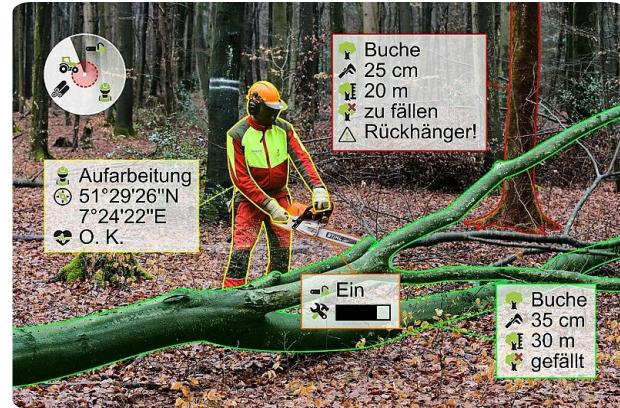


# KWH4.0 | Center of Excellence for Forestry 4.0



## *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.

## DETAILS

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### HERKUNFT DES HOLZES

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### MOBILISIERUNGSPOTENZIAL

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

### ART DES HOLZES

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### POTENZIAL FÜR NACHHALTIGKEIT - WERT

Sehr positiv

### ART DES BETROFFENEN HOLZES

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### LEICHTE IMPLEMENTIERUNG

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.

### AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITÄT

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

### LEICHTE IMPLEMENTIERUNG - BEWERTUNG

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### EINKOMMENSEFFEKT

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### WICHTIGE VORAUSSETZUNGEN

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### VERWERTUNGSPOTENZIAL

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### ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE

Studienaufenthalt (T2.3)

### NABE

Drehscheibe Mitte-West

### ARBEITSPLATZEFFEKT

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### WIRTSCHAFTLICHE AUSWIRKUNGEN

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### KOSTEN DER IMPLEMENTIERUNG (EURO - €)

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## SPEZIFISCHES WISSEN ERFORDERLICH

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## MEHR DETAILS

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ANGESPROCHENE HERAUSFORDERUNG	DOMÄNE	ART DER LÖSUNG
5. Verbesserung der wirtschaftlichen und ökologischen Leistung der forstwirtschaftlichen Forstlieferketten	Innovationsmanagement, digitale Hubs, Cluster, Verwertung (bereichsübergreifend)	Modellierung, DSS, Simulation, Optimierung
Schlüsselwörter	DIGITALE LÖSUNG	INNOVATION
--	Ja	Ja
HERKUNFTSLAND	UMFANG DER ANWENDUNG	ANFANGS- UND ENDJAHR
Deutschland	Regional/sub-national	--

## KONTAKTDATEN

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## REFERENCES AND RESOURCES

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HAUPT-WEBSITE	RESSOURCEN
<a href="https://www.kwh40.de/">https://www.kwh40.de/</a>	--
PROJEKT-WEBSITE	--
PROJEKT-REFERENZ	--

LOGO DER BEST PRACTICE



LOGO DER HAUPTORGANISATION

PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood 4.0

BEITRAGSDATUM

11 Aug. 2021



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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY



□