

# CROSS Harmonization & HPC modelization of FOREST Datasets



## CROSS-FOREST

*The aim of Cross-Forest is to publish Forest Inventory Datasets and Forestry maps from Portugal and Spain in Linked Open Data (LOD) format, and to combine them to create and integrate models supporting forest management and forest protection.*

Cross-Forest is developing a common platform for open forest data, and a cross-border data model (ontology) shared between Portugal and Spain, for the publication of forest inventories, maps and other forest databases in Linked Open Data format (LOD). Cross-Forest will provide a public endpoint exposing Forest Data, according to the produced model. The main goal is focused on keeping forest information always available and updated, to make exploitation easier for all stakeholders involved in forest management and research.

Two use cases are being developed:

CAMBRIC - to estimate the evolution of forests and wood quality, under different management scenarios

FRAME - to predict forest fires behavior and spreading through precise information on combustible materials, forestry maps and propagation models.

High Performance Computing (HPC) resources are employed due to the amount of data generated and managed, and to the complexity of the models.

Results so far show the usefulness and versatility provided by LOD technology, as It allows users to freely access and manage updated data to develop tools adapted to their needs and purposes. Publishing data as LOD allows Public Administrations to easily fulfil their requirements of transparency and publicity, optimize resources and keep a statistic control of the use of public data.

## DETAILS

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### HERKUNFT DES HOLZES

Wald

### ART DES HOLZES

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### ART DES BETROFFENEN HOLZES

Mediterranean forests in Spain and Portugal

### AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITÄT

Very high as it will help to protect forests from fires for its best management.

### EINKOMMENSEFFEKT

No data

### VERWERTUNGSPOTENZIAL

The results obtained so far demonstrate the usefulness and versatility provided by LOD technology, as it allows users to freely access and manage up-to-date data to develop tools adapted to their needs and purposes.

LOD technology allows for the modular and interconnected construction of an open, public and quality information infrastructure available to the sector. The

### MOBILISIERUNGSPOTENZIAL

Medium, this tool provides the best information for an appropriate management to avoid forest fires and also for the best management, therefore, it will improve the mobilization potential when CrossForest is used for this purpose

### POTENZIAL FÜR NACHHALTIGKEIT - WERT

Sehr positiv

### LEICHTE IMPLEMENTIERUNG

"Consuming open data" is not easy, so it is necessary to create intermediate links and multidisciplinary teams to bring new technologies closer to users, in order to design adapted solutions.

### LEICHTE IMPLEMENTIERUNG - BEWERTUNG

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### WICHTIGE VORAUSSETZUNGEN

The technology is already developed, the requirements are similar to those necessary for the use of any other similar software.

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

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continuity of this type of publication allows public administrations to meet their transparency obligations, optimise resources and keep statistical control of the use made of the information.

#### **NABE**

Drehkreuz Süd-West

#### **WIRTSCHAFTLICHE AUSWIRKUNGEN**

High, as the information facilitates the management and forecasting of forestry work to be carried out.

#### **SPEZIFISCHES WISSEN ERFORDERLICH**

Medium, some knowledge of mapping and forestry tools is necessary.

#### **ARBEITSPLATZEFFEKT**

The project does not have a direct effect on employment, but it opens up opportunities for entrepreneurs and companies, as the information published allows any user with the appropriate profile to launch queries and develop adapted tools.

#### **KOSTEN DER IMPLEMENTIERUNG (EURO - €)**

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## MEHR DETAILS

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### ANGESPROCHENE HERAUSFORDERUNG

1. Verbesserung der Widerstandsfähigkeit der Wälder und ihrer Anpassung an den Klimawandel

### DOMÄNE

Bestandsaufnahme, Bewertung, Überwachung  
Waldmanagement, Waldbau, Ökosystemleistungen,  
Resilienz  
Waldstörungen, Risiken, Katastrophenschutz

### ART DER LÖSUNG

Datenplattformen, Datendreh scheiben, offene Daten

### SCHLÜSSELWÖRTER

forest models; High Performance Computing (HPC); Ja  
Linked Open Data (LOD); ontology

### DIGITALE LÖSUNG

### INNOVATION

Ja

### HERKUNFTSLAND

Portugal

### UMFANG DER ANWENDUNG

Grenzüberschreitend/multilateral

### ANFANGS- UND ENDJAHR

2018 - 2021

## KONTAKTDATEN

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## REFERENCES AND RESOURCES

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### HAUPT-WEBSITE

<https://crossforest.eu/>

### PROJEKT-WEBSITE

<https://crossforest.eu/>

### PROJEKT-REFERENZ

Cross-Forest is co-financed by the European Union's Innovation and Networks

### RESSOURCEN

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Executive Agency (INEA), through the Connecting Europe Facility (CEF) 2014-2020. Action 2017-EU-IA-0140 (Agreement No INEA/CEF/ICT/A2017/1566738)

LOGO DER BEST PRACTICE



LOGO DER HAUPTORGANISATION



PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood 4.0

BEITRAGSDATUM

7 Juni 2021



[Link to Rosewood 4.0](#)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

