

# 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.

## DETALII

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### SURSA DE LEMN

Pădure

### TIPUL DE LEMN

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### TIPUL DE LEMN ÎN CAUZĂ

Mediterranean forests in Spain and Portugal

### IMPACTUL ASUPRA MEDIULUI ȘI BIODIVERSITĂȚII

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

### EFACT ASUPRA VENITURILOR

No data

### POTENȚIAL DE EXPLOATARE

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

### POTENȚIALUL DE MOBILIZARE

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

### POTENȚIAL DE SUSTENABILITATE - VALOARE

Foarte pozitiv

### FACILITATEA DE IMPLEMENTARE

"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.

### FACILITATEA DE IMPLEMENTARE - EVALUARE

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### CONDIȚII CHEIE PRELABILE

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

### TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB

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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.

#### **HUB**

Hub Sud-Vest

#### **IMPACT ECONOMIC**

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

#### **CUNOȘTINȚE SPECIFICE NECESARE**

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

#### **EFFECT ASUPRA LOCURILOR DE MUNCĂ**

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.

#### **COSTURI PENTRU IMPLEMENTARE (EURO - €)**

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## MAI MULTE DETALII

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### PROVOCARE ABORDATĂ

1. Îmbunătățirea rezilienței pădurilor și adaptarea la schimbările climatice

### DOMAIN

Inventariere, evaluare, monitorizare  
Managementul pădurilor, silvicultura, servicii  
ecosistemice, reziliență  
Perturbări ale pădurilor, riscuri, răspuns la dezastre

### TIP DE SOLUȚIE

Platforme de date, hub-uri de date, date deschise

### CUVINTE CHEIE

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

### SOLUȚIE DIGITALĂ

### INOVAȚIE

Da

### ȚARA DE ORIGINE

Portugalia

### SCARA DE APLICARE

Transfrontalier / multi-lateral

### ANUL DE ÎNCEPUT ȘI DE SFÂRȘIT

2018 - 2021

## DATE DE CONTACT

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### PROPRIETAR SAU AUTOR

Grupo Tragsa  
Asunción Roldan Zamarrón  
aroldan@tragsa.es  
<http://www.tragsa.es>

### REPORTER

Cesefor Foundation  
Ángela García  
[angela.garcia@cesefor.com](mailto:angela.garcia@cesefor.com)

## REFERENCES AND RESOURCES

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### PAGINĂ WEB

<https://crossforest.eu/>

### WEBSITE PROJECT

<https://crossforest.eu/>

### REFERINȚĂ PROIECT

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

### RESURSE

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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)



PROIECTUL ÎN CADRUL CĂRUI A FOST CREATă ACEASTă FIȘă INFORMATIVă

Rosewood 4.0

DATA POSTĂRII

7 Iun 2021



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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

