

# 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.

## DETALLES

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### ORIGEN DE LA MADERA

Bosque

### TIPO DE MADERA

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### TIPO DE MADERA AFECTADA

Mediterranean forests in Spain and Portugal

### IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

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

### EFFECTO SOBRE LOS INGRESOS

No data

### POTENCIAL DE EXPLOTACIÓN

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

### POTENCIAL DE MOVILIZACIÓN

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

### POTENCIAL DE SOSTENIBILIDAD - VALOR

Muy positivo

### FACILIDAD DE APLICACIÓN

"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.

### FACILIDAD DE IMPLEMENTACIÓN - EVALUACIÓN

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### PREREQUISITOS CLAVE

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

### TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

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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**

Centro del Suroeste

#### **IMPACTO ECONÓMICO**

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

#### **CONOCIMIENTOS ESPECÍFICOS NECESARIOS**

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

#### **EFFECTO SOBRE EL EMPLEO**

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.

#### **COSTES DE IMPLEMENTACIÓN (EURO - €)**

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## MÁS DETALLES

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<b>RETO ABORDADO</b> 1. Mejorar la resistencia y la adaptación de los bosques al cambio climático	<b>DOMINIO</b> Inventario, evaluación, seguimiento Gestión forestal, silvicultura, servicios ecosistémicos, abiertos resiliencia Perturbaciones forestales, riesgos, respuesta a desastres	<b>TIPO DE SOLUCIÓN</b> Plataformas de datos, centros de datos, datos
<b>PALABRAS CLAVE</b> forest models; High Performance Computing (HPC); Sí Linked Open Data (LOD); ontology	<b>SOLUCIÓN DIGITAL</b>	<b>INNOVACIÓN</b> Si
<b>PAÍS DE ORIGEN</b> Portugal	<b>ESCALA DE APLICACIÓN</b> Transfronterizo/multilateral	<b>AÑO DE INICIO Y FIN</b> 2018 - 2021

## DATOS DE CONTACTO

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## REFERENCES AND RESOURCES

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**SITIO WEB PRINCIPAL**  
<https://crossforest.eu/>  
**SITIO WEB DEL PROYECTO**  
<https://crossforest.eu/>  
**REFERENCIA DEL PROYECTO**

**RECURSOS**  
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LOGO DE LA BUENA PRÁCTICA



LOGOTIPO DE LA ORGANIZACIÓN PRINCIPAL



PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood 4.0

FECHA DE MENSAJE

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

