# 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 transparence and publicity, optimize resources and keep a statistic control of the use of public data.

#### DéTAILS

ORIGINE DU BOIS	POTENTIEL DE MOBILISATION
Forêt	Medium, this tool provides the best information for an appropiate managemnt
	to avoid forest fires and also for the best mangament, therfore, it will improve
	the mobilization potential when CrossForest is used for this purpose
TYPE DE BOIS	
	POTENTIEL DE DURABILITÉ - VALEUR
	Très positif
TYPE DE BOIS CONCERNÉ	FACILITÉ D'IMPLÉMENTATION
Mediterranean forests in Spain and Portugal	"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.
IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITÉ	FACILITÉ D'IMPLÉMENTATION - ÉVALUATION
Very high as it will help to protect forests from fires for its best management.	
EFFET SUR LE REVENU	PRéREQUIS CLÉS
No data	The technology is already developed, the requirements are similar to those
	necessary for the use of any other similar software.
POTENTIEL D'EXPLOITATION	TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE
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 moduler and interconnected construction of an	

open, public and quality information infrastructure available to the sector. The

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

Pôle Sud-Ouest

#### EFFET SUR L'EMPLOI

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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.

#### COûTS D'IMPLéMENTATION (EURO - €)

High, as the information facilitates the management and forecasting of

forestry work to be carried out.

IMPACT éCONOMIQUE

#### CONNAISSANCES SPÉCIFIQUES REQUISES

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

#### PLUS DE DéTAILS

DéFI CONCERNé	DOMAINE	TYPE DE SOLUTION	
1. Améliorer la résilience de la forêt et son	Inventaire, diagnostic, monitoring	Plateforme de données, hubs de data, open data	
adaptation au changement climatique	etsion forestière, sylviculture, services		
	écosystémiques, résilience	ues, résilience	
	Perturbations forestières, risque, réponse aux		
	calamités		
MOTS-CLéS	SOLUTION DIGITALE	INNOVATION	
forest models; High Performance Computing (HPC)	Oui	Oui	
Linked Open Data (LOD); ontology			
PAYS D'ORIGINE	ECHELLE D'APPLICATION	DéBUT ET FIN D'ANNÉE	
Portugal	Transfrontalière/Multilatérale	2018 - 2021	

# INFORMATIONS DE CONTACT

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#### REFERENCES AND RESOURCES

ITE WEB PRINCIPAL
ttps://crossforest.eu/
ITE WEB DU PROJET
ttps://crossforest.eu/

**RéFéRENCE DU PROJET** 

#### RESSOURCES

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#### PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A ÉTÉ CRÉÉE

Rosewood 4.0

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HTML

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### A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY



