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
Forêt

TYPE DE BOIS
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TYPE DE BOIS CONCERNé
Mediterranean forests in Spain and Portugal

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITé
Very high as it will help to protect forests from fires for its best management.

EFFET SUR LE REVENU
No data

POTENTIEL D'EXPLOITATION
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

POTENTIEL DE MOBILISATION
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

POTENTIEL DE DURABILITé - VALEUR
Très positif

FACILITé D'IMPLéMENTATION
"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.

FACILITé D'IMPLéMENTATION - ÉVALUATION
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PRéREQUIS CLéS
The technology is already developed, the requirements are similar to those necessary for the use of any other similar software.

TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE
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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

Pôle Sud-Ouest

EFFET SUR L'EMPLOI

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.

IMPACT éCONOMIQUE

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

COûTS D'IMPLéMENTATION (EURO - €)

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CONNAISSANCES SPéCIFIQUES REQUISES

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

PLUS DE DéTAILS

DéFI CONCERNé

1. Améliorer la résilience de la forêt et son adaptation au changement climatique

DOMAINE

Inventaire, diagnostic, monitoring
Getsion forestière, sylviculture, services écosystémiques, résilience
Perturbations forestières, risque, réponse aux calamités

TYPE DE SOLUTION

Plateforme de données, hubs de data, open data

MOTS-CLéS

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

SOLUTION DIGITALE

Oui

INNOVATION

Oui

PAYS D'ORIGINE

Portugal

ECHELLE D'APPLICATION

Transfrontalière/Multilatérale

DéBUT ET FIN D'ANNéE

2018 - 2021

INFORMATIONS DE CONTACT

PROPRIéTAIRE OU AUTEUR

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

RAPPORTEUR

Cesefor Foundation
Ángela García
angela.garcia@cesefor.com

REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

https://crossforest.eu/

SITE WEB DU PROJET

https://crossforest.eu/

RéFéRENCE DU PROJET

RESSOURCES

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LOGO DE LA BONNE PRATIQUE

LOGO DE L'ORGANISATION PRINCIPALE

PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A éTé CRééE

Rosewood 4.0

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY