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.

DETALII

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.

EFECT 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 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

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 PREALABILE

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

EFECT 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.

IMPACT ECONOMIC

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

COSTURI PENTRU IMPLEMENTARE (EURO - €)

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CUNOȘTINȚE SPECIFICE NECESARE

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

MAI MULTE DETALII

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); Linked Open Data (LOD); ontology

SOLUțIE DIGITALă

Da

INOVAțIE

Da

ȚARA DE ORIGINE

Portugalia

SCARA DE APLICARE

Transfrontalier / multi-lateral

ANUL DE îNCEPUT șI DE SFâRșIT

2018 - 2021

DATE DE CONTACT

PROPRIETAR SAU AUTOR

Grupo Tragsa

Asunción Roldan Zamarrón

aroldan@tragsa.es

http://www.tragsa.es

REPORTER

Cesefor Foundation

Ángela García

angela.garcia@cesefor.com

REFERENCES AND RESOURCES

PAGINă WEB

https://crossforest.eu/

WEBSITE PROJECT

https://crossforest.eu/

RESURSE

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REFERINță PROIECT

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

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DESPRE EXEMPLUL DE BUNă PRACTICă

A PRINCIPALEI ORGANIZAțII

PROIECTUL îN CADRUL CăRUIA 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