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.

DETTAGLI

ORIGINE DEL LEGNO
foresta

TIPO DI LEGNO
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TIPO DI LEGNO IN QUESTIONE
Mediterranean forests in Spain and Portugal

IMPATTO SULL'AMBIENTE E LA BIODIVERSITà
Very high as it will help to protect forests from fires for its best management.

EFFETTO SUL REDDITO
No data

POTENZIALE DI SFRUTTAMENTO
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

POTENZIALE DI MOBILITAZIONE
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

POTENZIALE SOSTENIBILITà - VALORE
Molto positivo

FACILITà DI IMPLEMENTAZIONE
"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.

FACILITà DI IMPLEMENTAZIONE - VALUTAZIONE
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PREREQUISITI CHIAVE
The technology is already developed, the requirements are similar to those necessary for the use of any other similar software.

TIPO DI EVENTO IN CUI QUESTO BPI è STATO PRESENTATO
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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-ovest

EFFETTO SUL LAVORO

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.

IMPATTO ECONOMICO

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

I COSTI DI ATTUAZIONE (EURO - €)

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CONOSCENZE SPECIFICHE NECESSARIE

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

Più DETTAGLI

SFIDA RISOLTA

1. Migliorare la resilienza delle foreste e l'adattamento ai cambiamenti climatici

DOMINIO

Inventario, la valutazione, il monitoraggio
La gestione forestale, selvicoltura, i servizi ecosistemici, resilienza
disturbi della foresta, i rischi, risposta ai disastri

TIPO DI SOLUZIONE

piattaforme di dati, hub di dati, dati aperti

PAROLE CHIAVE

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

SOLUZIONE DIGITALE

Sì

INNOVAZIONE

Sì

PAESE D'ORIGINE

Portogallo

SCALA DI APPLICAZIONE

Transfrontaliera / multilaterale

INIZIO E FINE ANNO

2018 - 2021

CONTATTI

PROPRIETARIO O AUTORE

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

REPORTER

Cesefor Foundation
Ángela García
angela.garcia@cesefor.com

REFERENCES AND RESOURCES

SITO PRINCIPALE

https://crossforest.eu/

SITO WEB DEL PROGETTO

https://crossforest.eu/

RISORSE

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PROGETTO DI RIFERIMENTO

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LOGO DELLE MIGLIORI PRATICHE

LOGO DELLA PRINCIPALE ORGANIZZAZIONE

PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood 4.0

DATA DI INSERIMENTO

7 Giu 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY