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.

PODROBNOSTI

IZVOR LESA
Gozd

TIP LESA
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VRSTA OBRAVNAVANEGA LESA
Mediterranean forests in Spain and Portugal

VPLIV NA OKOLJE IN BIODIVERZITETO
Very high as it will help to protect forests from fires for its best management.

VPLIV NA PRIHODKE
No data

POTENCIAL IZKORIŠČANJA
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

POTENCIAL ZA MOBILIZACIJO
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

TRAJNOST - VREDNOST
Zelo pozitivno

ENOSTAVNOST IZVEDBE
"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.

ENOSTAVNOST IZVEDBE - OCENJEVANJE
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KLJUČNI PREDPOGOJI
The technology is already developed, the requirements are similar to those necessary for the use of any other similar software.

VRSTA DOGODKA, NA KATEREM JE BIL PREDSTAVLJEN TA BPI
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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.

VOZLIŠČE

Jugozahodno vozlišče

VPLIV NA DELOVNA MESTA

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.

GOSPODARSKI VPLIV

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

STROŠKI IZVEDBE (EURO - €)

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POTREBNO SPECIFIČNO ZNANJE

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

VEČ PODROBNOSTI

IZZIV

1. Izboljšava odpornosti gozdov in prilagoditev na klimatske spremembe

DOMENA

Inventura, ocena, monitoring

Gojenje gozdov, gospodarjenje z gozdovi, odpornost, ekosistemske storitve

Motnje, tveganja, odziv na naravne nesreče

TIP REŠITVE

Podatkovna platforma, vozlišča podatkov, odprti podatki

KLJUČNE BESEDE

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

DIGITALNE REŠITVE

Da

INOVACIJA

Da

IZVORNA DRŽAVA

Portugalska

OBSEG UPORABE

Čezmejni / Transnacionalni

ZAČETNO IN KONČNO LETO

2018 - 2021

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REFERENCES AND RESOURCES

SPLETNA STRAN

https://crossforest.eu/

SPLETNA STRAN PROJEKTA

https://crossforest.eu/

VIRI

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REFERENCA PROJEKTA

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LOGOTIP DOBRE PRAKSE

LOGOTIP GLAVNE ORGANIZACIJE

PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood 4.0

DATUM OBJAVE

7 Jun 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY