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.

DETALJER

OPPRINNELSE FOR TRE

Skog

TYPE TRE

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TYPE TRE INVOLVERT

Mediterranean forests in Spain and Portugal

PåVIRKNING På MILJø OG BIOLOGISK MANGFOLD

Very high as it will help to protect forests from fires for its best management.

INNTEKTSEFFEKT

No data

UTNYTTELSESPOTENSIAL

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

MOBILISERINGSPOTENSIAL

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

BæREKRAFTPOTENSIAL - VERDI

Veldig positivt

ENKEL IMPLEMENTERING

"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.

ENKEL IMPLEMENTERING - EVALUERING

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VIKTIGE FORUTSETNINGER

The technology is already developed, the requirements are similar to those necessary for the use of any other similar software.

TYPE BEGIVENHET DER DENNE BPI HAR BLITT OMTALT

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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

South-West Hub

EFFEKT På ARBEIDSPLASSER

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.

ØKONOMISK PåVIRKNING

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

KOSTNADER MED IMPLEMENTERING (EURO - €)

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SPESIFIKKE KUNNSKAPSBEHOV

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

MER INFORMASJON

UTFORDRING ADRESSERT

1. Forbedre skogens robusthet og tilpasningsevne til klimaendringer

DOMENE

Inventering, vurdering, overvåking

Skogforvaltning, skogskjøtsel, økosystemtjenester

Skogskader, risiko, katastrofeberedskap

TYPE LøSNING

Data plattformer og tilsvarende

NøKKELORD

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

DIGITAL LøSNING

Ja

INNOVASJON

Ja

OPPRINELSESLAND

Portugal

POTENSIALE

Grenseoverskridende/transnasjonal

START OG SLUTT åR

2018 - 2021

KONTAKT INFORMASJON

EIER ELLER FORFATTER

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REFERENCES AND RESOURCES

HJEMMESIDE (HOVEDSIDE)

https://crossforest.eu/

PROSJEKTETS HJEMMESIDE

https://crossforest.eu/

REFERANSE TIL PROSJEKT

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RESSURSER

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LOGO FOR BESTE PRAKSIS

LOGO FOR HOVEDORGANISASJON

PROSJEKT SOM DETTE FAKTAARKET ER OPPRETTET UNDER

Rosewood 4.0

INNLEGGSDATO

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY