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.

DETAILS

HERKUNFT DES HOLZES
Wald

ART DES HOLZES
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ART DES BETROFFENEN HOLZES
Mediterranean forests in Spain and Portugal

AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITäT
Very high as it will help to protect forests from fires for its best management.

EINKOMMENSEFFEKT
No data

VERWERTUNGSPOTENZIAL
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

MOBILISIERUNGSPOTENZIAL
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

POTENZIAL FüR NACHHALTIGKEIT - WERT
Sehr positiv

LEICHTE IMPLEMENTIERUNG
"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.

LEICHTE IMPLEMENTIERUNG - BEWERTUNG
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WICHTIGE VORAUSSETZUNGEN
The technology is already developed, the requirements are similar to those necessary for the use of any other similar software.

ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE
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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.

NABE

Drehkreuz Süd-West

ARBEITSPLATZEFFEKT

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.

WIRTSCHAFTLICHE AUSWIRKUNGEN

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

KOSTEN DER IMPLEMENTIERUNG (EURO - €)

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SPEZIFISCHES WISSEN ERFORDERLICH

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

MEHR DETAILS

ANGESPROCHENE HERAUSFORDERUNG

1. Verbesserung der Widerstandsfähigkeit der Wälder und ihrer Anpassung an den Klimawandel

DOMäNE

Bestandsaufnahme, Bewertung, Überwachung

Waldmanagement, Waldbau, Ökosystemleistungen, Resilienz

Waldstörungen, Risiken, Katastrophenschutz

ART DER LöSUNG

Datenplattformen, Datendrehscheiben, offene Daten

SCHLüSSELWöRTER

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

DIGITALE LöSUNG

Ja

INNOVATION

Ja

HERKUNFTSLAND

Portugal

UMFANG DER ANWENDUNG

Grenzüberschreitend/multilateral

ANFANGS- UND ENDJAHR

2018 - 2021

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REFERENCES AND RESOURCES

HAUPT-WEBSITE

https://crossforest.eu/

PROJEKT-WEBSITE

https://crossforest.eu/

PROJEKT-REFERENZ

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

RESSOURCEN

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Executive Agency (INEA), through the Connecting Europe Facility (CEF) 2014-2020. Action 2017-EU-IA-0140 (Agreement No INEA/CEF/ICT/A2017/1566738)

LOGO DER BEST PRACTICE

LOGO DER HAUPTORGANISATION

PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood 4.0

BEITRAGSDATUM

7 Juni 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY