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.

Λεπτομέρειες

Προέλευση ξυλείας

Δάσος

Τύπος ξυλείας

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Τύπος εμπλεκόμενης ξυλείας

Mediterranean forests in Spain and Portugal

Επιπτώσεις στο περιβάλλον και τη βιοποικιλότητα

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

Δυνατότητες ειδοδήματος

No data

Δυνατότητες για εκμετάλλευση

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

Δυνατότητες διακίνησης

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

Δυναμικό βιωσιμότητας - Αξία

Πολύ θετικό

Ευκολία υλοποίησης

"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.

Ευκολία εφαρμογής - Αξιολόγηση

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Βασικά προαπαιτούμενα

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

Τύπος εκδήλωσης στην οποία έχει παρουσιαστεί αυτός ο BPI

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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.

Κόμβος

Νοτιοδυτικός κόμβος

Δυνατότητες εργασίας

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.

Οικονομικός αντίκτυπος

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

Κόστος υλοποίησης (ευρώ - €)

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Ειδικές προαπαιτούμενες γνώσεις

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

Περισσότερες λεπτομέρειες

Πρόκληση η οποία αντιμετωπίζεται

1. Βελτίωση της ανθεκτικότητας των δασών και της προσαρμογής στην κλιματική αλλαγή

Όνομα χώρου

Απογραφή, αξιολόγηση, παρακολούθηση

Διαχείριση δασών, δασοκομία, υπηρεσίες οικοσυστήματος, ανθεκτικότητα

Δασικές διαταραχές, κίνδυνοι, αντιμετώπιση καταστροφών

Τύπος λύσης

Πλατφόρμες δεδομένων, κόμβοι δεδομένων, ανοιχτά δεδομένα

Λέξεις κλειδιά

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

Ψηφιακή λύση

ναι

Καινοτομία

Ναι

Χώρα προέλευσης

Πορτογαλία

Κλίμακα της εφαρμογής

Δια-συνοριακό / πολυμερές

Έτος έναρξης και λήξης

2018 - 2021

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REFERENCES AND RESOURCES

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https://crossforest.eu/

Ιστότοπος έργου

https://crossforest.eu/

Αναφορά έργου

Πηγές

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λογότυπο καλής πρακτικής

λογότυπο επικΕφαλής οργανισμού

Έργο για το οποίο έχει δημιουργηθεί το παρόν φύλλο πληροφοριών

Rosewood 4.0

Ημερομηνία δημοσίευσης

7 Ιουν 2021

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Link to Rosewood 4.0

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY