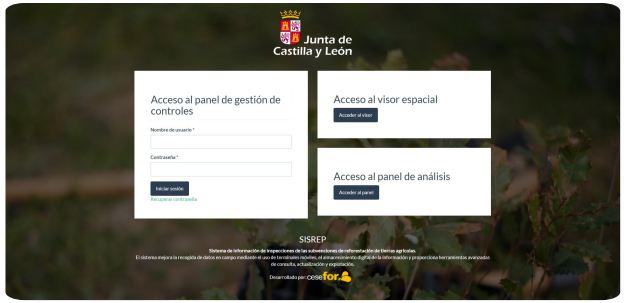
SISREP | Management and analysis of reforestations on agricultural land



SISREP is a project that has developed an advanced statistical model that allows predictive and descriptive analyses to be carried out using a forestation survival prediction tool to ensure the success of new plantations. SISREP is based on the use of knowledge from historical in-situ visits to predict the probability of success of future plantations using machine learning techniques, and on a database with more than 50,000 observations referring to forestations carried out from 1993 to the present day.

The main objective of SISREP is to make use of the information obtained during inspections in the framework of aid for afforestation and the creation of forest areas in Castilla y León in order to:

- Use of the information obtained in the field for the management of the controlled files.
- Creation of a centralised and geo-referenced database with information on the state of plantations.
- To be able to predict, by means of artificial intelligence techniques, the success of future plantations.
- With the knowledge extracted, review and improve the planning of future actions, allowing the implementation of the most appropriate technical conditions for the new environmental circumstances.

To this end, an infrastructure has been designed and implemented that allows the digitalisation of the entire workflow, from data collection in the field to the use of these data in advanced statistical analysis tools.

The data collected in the field are for example species, altitude, density, slope, method, orientation, age, lithography, with or without sowing, or area.

DETAILS

ORIGIN OF WOOD

Forest

TYPE OF WOOD

Stemwood

KIND OF WOOD CONCERNED

Reforestation and creation of forest areas

IMPACT ON ENVIRONMENT & BIODIVERSITY

SISREP enables better forest management and ensures the success of new tree plantations, thus improving the preservation of the environment and the creation of new forest ecosystems.

Therefore, the project has a very positive impact on the environment and biodiversity.

INCOME EFFECT

Very positive. Better forest management can generate more income.

EXPLOITATION POTENTIAL

Very positive, as SISREP is a support system for forest management in multiple variants, as well as a valuable aid to both private owners and managers in the task of creating new forests and, in the medium term, managing specific aspects of existing ones.

The use of data derived from the daily management of administrations is a

MOBILIZATION POTENTIAL

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SUSTAINABILITY POTENTIAL - VALUE

Very Positive

EASE OF IMPLEMENTATION

--

EASE OF IMPLEMENTATION - EVALUATION

--

KEY PREREQUISITES

In order to carry out this project, it would be necessary to have a solid database, compiled over a number of years.

TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

--

highly valuable source of information that can help to improve the services offered by these administrations. To this end, the digitisation of processes becomes a fundamental and indispensable task.

HUB

South-West Hub

JOB EFFECT

--

ECONOMIC IMPACT

--

COSTS OF IMPLEMENTATION (EURO - €)

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SPECIFIC KNOWLEDGE NEEDED

Use of digital tools.

MORE DETAILS

CHALLENGE ADDRESSED

1.- Improve forest resilience and adaption to climate change

DOMAIN

Inventory, monitoring

Forest management, ecosystem, resilience

Forest disturbances, risks

TYPE OF SOLUTION

Modelling, simulation, optimization

KEYWORDS

Reforestation

database

forecasting

DIGITAL SOLUTION

Yes

INNOVATION

Yes

COUNTRY OF ORIGIN

Spain

SCALE OF APPLICATION

Regional/sub-national

START AND END YEAR

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CONTACT DATA

OWNER OR AUTHOR

CESEFOR, Junta de Castilla y León

Francisco Gallego

francisco.gallego@cesefor.com

https://www.cesefor.com/

REPORTER

Fundación CESEFOR

Angela García de Arana

angela.garcia@cesefor.com

REFERENCES AND RESOURCES

MAIN WEBSITE

https://www.pfcyl.es/sites/default/files/biblioteca/documentos/ficha_sisrep.pdf

PROJECT WEBSITE

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PROJECT REFERENCE

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RESOURCES

Presentación : Proyecto SISREP

PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED

Rosewood 4.0

POST DATE

15 Dec 2021

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY