

# Forest-LidaRioja | Forest inventory and fuel model map using remote sensing technologies



*This project has created an updated cartography of the main forest species in La Rioja, collecting data such as the volume of wood, tree heights and vegetation structure for every 25x25m of land, with a very high level of resolution.*

The Forest-LidaRioja operational group has been formed with the aim of developing a forest inventory and a fuel model map of La Rioja using remote sensing technologies. Among the main practical utilities, we can highlight the importance for improving sustainable forest management, since with accurate and updated data, better decisions can be made and actions in forest areas can be better planned. This project has allowed the development of methodologies and processes for the integration of different sources of information (mainly airborne LiDAR from PNOA 2016 data and OPTICA satellite information). These methods are supported by the development of algorithms that correlate by statistical methods precise terrain data with LiDAR data, requiring the realization of very well calibrated forest plots and measurements located with sub-meter precision in strategic points for each forest species and working area.

The main results of the Forest-LidaRioja Project are:

- Forest inventory of the forests of La Rioja.
- Mapping of fuel models of the forest area of La Rioja to plan preventive forest fire prevention work.
- Study of the evolution of poplar groves in the region and their supply potential.
- Technical training on the products generated for professionals interested in their practical use.

The products generated are open to the public so that anyone can download and use them.

## DETALJER

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### OPPRINNELSE FOR TRE

Skog

### TYPE TRE

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### TYPE TRE INVOLVERT

Wood standing

### PÅVIRKNING PÅ MILJØ OG BIOLOGISK MANGFOLD

Difficult to estimate

### INNETKTSEFFEKT

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### UTNYTTELSESPOTENSIAL

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### HUB

South-West Hub

### ØKONOMISK PÅVIRKNING

### MOBILISERINGSPOTENSIAL

Difficult to define, but if we base ourselves on the annual felling and the possibilities in La Rioja, it could be between 100,000 and 250,000 m<sup>3</sup> of wood, but it would not be only through this system.

### BÆREKRAFTPOTENSIAL - VERDI

Veldig positivt

### ENKEL IMPLEMENTERING

A very easy-to-use application has been created to make it user-friendly for everyone, with a basic variant for all audiences that is intuitive to use and a more advanced variant for technicians (the latter was accompanied by training).

### ENKEL IMPLEMENTERING - EVALUERING

Very Easy

### VIKTIGE FORUTSETNINGER

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### TYPE BEGIVENHET DER DENNE BPI HAR BLITT OMTALT

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### EFFEKT PÅ ARBEIDSPLASSER

Difficult to specify

### KOSTNADER MED IMPLEMENTERING (EURO - €)

High at the scale of forest users, facilitates many processes linked to public forest services and lowers inventory costs for both public and private users. 243000

**SPESIFIKKE KUNNSKAPSBEHOV**

For the all public variant none, only knowledge of the location of the plot and internet access, for the technical variant knowledge of foresters and some rudiments of using the application.

## MER INFORMASJON

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### UTFORDRING ADRESSERT

2. Forbedre infrastruktur og kapasitet for offentlige aktører

### NØKKEWORD

Cartografía

Inventario forestal continuo

LiDAR

### OPPRINELSESLAND

Spania

### DOMENE

Inventering, vurdering, overvåking  
Avvirkning, infrastruktur, logistikk

### DIGITAL LØSNING

Ja

### POTENSIALE

Regional/deler av landet

### TYPE LØSNING

Modellering, DSS, simulering, optimalisering

### INNOVASJON

Ja

### START OG SLUTT ÅR

2018 - 2020

## KONTAKT INFORMASJON

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### RAPPORTØR

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## REFERENCES AND RESOURCES

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### HJEMMESIDE (HOVEDSIDE)

<https://www.forest-lidarioja.info/>

### PROSJEKTETS HJEMMESIDE

<https://www.forest-lidarioja.info/grupo-operativo/>

### REFERANSE TIL PROSJEKT

FEADER

### RESSURSER

**Spatial Data Infrastructures of the Government of La Rioja (IDerioja)**

**Application for consulting and extracting data from specific plots of land**

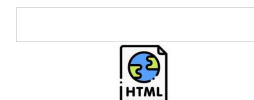


PROSJEKT SOM DETTE FAKTAARKET ER OPPRETTET UNDER

Rosewood 4.0

INNLEGGSDATO

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

