





# **Digitalization in the Poplar sector**



#### POPLAR WEEK. Carracedelo, León. Spain. 14, 15, 16 June 2021





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

CESEFOR FOUNDATION. 15TH JUNE 2021. SWE HUB

## **Digitalization in the Poplar sector**

Poplar week SWE hub. 15th June 2021



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### LIDAR VOLUME ESTIMATION OF **POPLAR FORESTS: CHOPERAPP**

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Emprendimiento



# THE CHALLENGE



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Red de Emprendimiento e Innovación de Castilla y León



# THE CHALLENGE

### How to messure standing timber?

Fast and easily

Affordable

Reliable and accurately









# THE SOLUTIONS

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## **HIGHT TECH SOLUTIONS?**



### NOT BAD BUT....

#### **CAN WE DO IT BETTER?**



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## OK, THIS IS MORE HIGH TECH BUT

Is it... fast and easy?

affordable?

reliable and accurate?







## **OTHER SOLUTIONS**

**LIDAR AND SATELLITE?** 

Red de

Centr@**Tec** 

Servicios Avanzados de Innovación para Pyme



Signal Sunta de Castilla y León

competitividad empresarial

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## LIDAR INVENTORY: AREA-BASED APPROACHS



http://lidarrioja.agrestaweb.org/#!/map

Volumen m³/ha



#### FOREST LIDARIOJA

i FUENTES DE DATOS



- Dibuje uno o varios polígonos a mano alzada (doble click para cerrar polígono) y pulse Continuar para terminar.
- Pulse Dibujar Polígono para habilitar la edición de polígonos a mano alzada.
- Pulse Borrar Polígonos para eliminar todos los polígonos dibujados.
- Pulse Navegar para deshabilitar la selección y habilitar la navegación en mapa.

#### DIBUJAR POLÍGONO











## FOREST LIDARIOJA

SHAPE

POLÍGONO

CATASTRO

- Dibuje uno o varios polígonos a mano alzada (doble click para cerrar polígono) y pulse Continuar para terminar.
- Pulse Dibujar Polígono para habilitar la edición de polígonos a mano alzada.
- Pulse Borrar Polígonos para eliminar todos los polígonos dibujados.
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#### DIBUJAR POLÍGONO





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# CAN WE GO FURTHER?

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## LIDAR INVENTORY: INDIVIDUAL TREE



http://lidarchoperas.agrestaweb.org/



#### ChoperApp: Cubicación LiDAR de Choperas





#### **CHALLENGE: POPLAR GROWS FAST BUT LIDAR DATA EVERY 5-6 YEARS**



### HOW TO MANAGE THE MISMATCH BETWEEN GROWTH AND FREQUENCY OF LIDAR FLIGHTS

#### PROJECT IN BIERZO AND ORBIGO BASIN (LEON) DATA FROM 2010 POPLAR INVENTORY IN 2020!





ightarrow Forest Inventory. LIDAR PNOA

- ightarrow Detection of total changes in tree cover
- ightarrow Growth's Models and Field Work

#### MÁXIMA ACTUALIDAD PUBLICADA









## LIDAR + PHOTOGRAMETRY











PROYECTO PNOA 2019: ZONAS DE VUELO

PNDA





# CONCLUSIONS

Another way for assessment

Fast, easy, affordable

Need to work in collaboration with timber companies to improve reliability and accuracy















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**@NETWORKROSEWOOD** 

in ROSEWOOD NETWORK

CESEFOR FOUNDATION/15TH JUNE 2021 CARRACEDELO, LEÓN. SPAIN Ayuntamiento de **Carracedelo**