Development of visual and mechanical sorting tools for the enhancement of structural sawn timber



Structural sawn timber intended for construction must offer similar guarantees to those offered by other materials and products intended for the structural construction sector. For this purpose, it is necessary to develop classification tools that allow manufacturers and marketers to certify the strength and stiffness values of all the wood that is placed on the market (adjusted to the species and origin that corresponds).
It is, in addition to being a legal obligation, a tool for the valuation of wood that is enabling a competitive improvement of its industrial network.

Technological development of structural sawn timber not only enables it to be directly promoted in the construction sector as a construction element, but also to be incorporated into the manufacture of technological products with high added value, such as glued laminated timber, duos, trios, CLT, prefabricated panels... These are high value-added products that require high levels of competitiveness that cannot be achieved without their main raw material, structural sawn timber, increasing its competitiveness, optimising its manufacturing times and its declared mechanical properties

Visual classification tools have been developed for the main commercial wood species found in Spanish forest stands, such as Pinus sylvestris, Pinus insigne, Pinus nigra, Pinus pinaster, Abies alba, Pseudotsuga menziesii, Quercus rubra, Castanea sativa and Eucalyptus globulus. Tools that in many cases enable the possibility of classifying structural sawn timber into three structural qualities, which allows the different qualities of wood that the timber industry places on the construction market to be classified and valued.
Mechanical classification systems are currently being developed for the main species of the Pinus genus. This is one more step in the competitive improvement of this type of wood, as it improves the classification times and the classifying performance in the different mechanical qualities.

Both developments have enhanced the value of the wood of the different wood species characterized, and have promoted its use in construction.

DETAILS

HERKUNFT DES HOLZES

Industrie

ART DES HOLZES

Stammholz

ART DES BETROFFENEN HOLZES

Pinus sylvestris, Pinus nigra, Pinus radiata, Pinus pinaster, Pseudotsuga menziessii, Larix sp, Quercus rubra, Abies alba

AUSWIRKUNGEN AUF UMWELT UND BIODIVERSITäT

Positive, it mobilizes wood with a proper forest management

EINKOMMENSEFFEKT

Positive, more quality timber is mobilized

VERWERTUNGSPOTENZIAL

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NABE

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WIRTSCHAFTLICHE AUSWIRKUNGEN

Structural timber value increases in 10€/m3 approximately

SPEZIFISCHES WISSEN ERFORDERLICH

Knowledge about Phisical-mechanical properties of wood. Harmonized rules

MOBILISIERUNGSPOTENZIAL

300,000 m3

POTENZIAL FüR NACHHALTIGKEIT - WERT

--

LEICHTE IMPLEMENTIERUNG

Very easy

LEICHTE IMPLEMENTIERUNG - BEWERTUNG

--

WICHTIGE VORAUSSETZUNGEN

Experience on manufacturing and classification of structural timber

ART DER VERANSTALTUNG, AUF DER DIESE BPI VORGESTELLT WURDE

--

ARBEITSPLATZEFFEKT

Positive through better competitiveness

KOSTEN DER IMPLEMENTIERUNG (EURO - €)

--

needed

MEHR DETAILS

ANGESPROCHENE HERAUSFORDERUNG

--

DOMäNE

Forstbasierte Industrien, Bio-/ Kreislaufwirtschaft

Holzbau-Industrie

ART DER LöSUNG

--

SCHLüSSELWöRTER

--

DIGITALE LöSUNG

Nein

INNOVATION

Nein

HERKUNFTSLAND

Spanien

UMFANG DER ANWENDUNG

National

ANFANGS- UND ENDJAHR

2011 -

KONTAKTDATEN

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REFERENCES AND RESOURCES

HAUPT-WEBSITE

http://www.cesefor.com

PROJEKT-WEBSITE

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PROJEKT-REFERENZ

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RESSOURCEN

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PROJEKT, IN DESSEN RAHMEN DIESES FACTSHEET ERSTELLT WURDE

Rosewood

BEITRAGSDATUM

30 Aug. 2019

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