

## 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 insignis*, *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.

## PODROBNOSTI

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### IZVOR LESA

Industrija

### TIP LESA

Okrogli les

### POTENCIAL ZA MOBILIZACIJO

300,000 m<sup>3</sup>

### TRAJNOST - VREDNOST

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### VRSTA OBRAVNAVANEGA LESA

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

### ENOSTAVNOST IZVEDBE

Very easy

### VPLIV NA OKOLJE IN BIODIVERZITETO

Positive, it mobilizes wood with a proper forest management

### ENOSTAVNOST IZVEDBE - OCENJEVANJE

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### VPLIV NA PRIHODKE

Positive, more quality timber is mobilized

### KLJUČNI PREDPOGOJI

Experience on manufacturing and classification of structural timber

### POTENCIAL IZKORIŠČANJA

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### VRSTA DOGODKA, NA KATEREM JE BIL PREDSTAVLJEN TA BPI

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### VOZLIŠČE

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### VPLIV NA DELOVNA MESTA

Positive through better competitiveness

### GOSPODARSKI VPLIV

Structural timber value increases in 10€/m<sup>3</sup> approximately

### STROŠKI IZVEDBE (EURO - €)

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### POTREBNO SPECIFIČNO ZNANJE

Knowledge about Physical-mechanical properties of wood. Harmonized rules

needed

VEČ  
PODROBNOSTI

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IZZIV

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DOMENA

Gozdno-lesna industrija, krožno gospodarstvo

Lesena gradnja

TIP REŠITVE

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KLJUČNE BESEDE

--

DIGITALNE REŠITVE

No

INOVACIJA

Ne

IZVORNA DRŽAVA

Španija

OBSEG UPORABE

Nacionalni

ZAČETNO IN KONČNO LETO

2011 -

KONTAKTNI  
PODATKI

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REFERENCES  
AND RESOURCES

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SPLETNA STRAN

<http://www.cesefor.com>

SPLETNA STRAN PROJEKTA

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VIRI

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REFERENCA PROJEKTA

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PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood

DATUM OBJAVE

30 Aug 2019

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

