

## 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.

## Λεπτομέρειες

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Προέλευση ξυλείας

Βιομηχανία

Τύπος ξυλείας

Κορμοξυλεία

Δυνατότητες διακίνησης

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

Δυναμικό βιωσιμότητας - Αξία

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Τύπος εμπλεκόμενης ξυλείας

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

Ευκολία υλοποίησης

Very easy

Επιπτώσεις στο περιβάλλον και τη βιοποικιλότητα

Positive, it mobilizes wood with a proper forest management

Ευκολία εφαρμογής - Αξιολόγηση

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Δυνατότητες ειδοδήματος

Positive, more quality timber is mobilized

Βασικά προαπαιτούμενα

Experience on manufacturing and classification of structural timber

Δυνατότητες για εκμετάλλευση

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Τύπος εκδήλωσης στην οποία έχει παρουσιαστεί αυτός ο BPI

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Κόμβος

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Δυνατότητες εργασίας

Positive through better competitiveness

Οικονομικός αντίκτυπος

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

Κόστος υλοποίησης ( ευρώ - € )

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Ειδικές προαπαιτούμενες γνώσεις

Knowledge about Physical-mechanical properties of wood. Harmonized rules

needed

## Περισσότερες λεπτομέρειες

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|                                  |   |                        |
|----------------------------------|---|------------------------|
| Πρόκληση η οποία αντιμετωπίζεται | Όνομα χώρου                             | Τύπος λύσης            |
| --                               | Δασική βιομηχανία, βιοκυκλική οικονομία | --                     |
|                                  | Βιομηχανία ξύλινων κατασκευών           |                        |
| Λέξεις κλειδιά                   | Ψηφιακή λύση                            | Καινοτομία             |
| --                               | όχι                                     | Όχι                    |
| Χώρα προέλευσης                  | Κλίμακα της εφαρμογής                   | Έτος έναρξης και λήξης |
| Ισπανία                          | Εθνικό                                  | 2011 -                 |

## Στοιχεία επικοινωνίας

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Ιδιοκτήτης ή συγγραφέας

Αναφορέας

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## REFERENCES AND RESOURCES

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|---|-------|
| Κύριος ιστότοπος  | Πηγές |
| <a href="http://www.cesefor.com">http://www.cesefor.com</a> | --    |
| Ιστότοπος έργου   |       |
| --  |       |
| Αναφορά έργου   |       |
| --  |       |

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Έργο για το οποίο έχει δημιουργηθεί το παρόν φύλλο πληροφοριών  
Rosewood

Ημερομηνία δημοσίευσης  
30 Αυγ 2019

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY

