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.

Λεπτομέρειες

Προέλευση ξυλείας

Βιομηχανία

Τύπος ξυλείας

Κορμοξυλεία

Τύπος εμπλεκόμενης ξυλείας

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

Επιπτώσεις στο περιβάλλον και τη βιοποικιλότητα

Positive, it mobilizes wood with a proper forest management

Δυνατότητες ειδοδήματος

Positive, more quality timber is mobilized

Δυνατότητες για εκμετάλλευση

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Κόμβος

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Οικονομικός αντίκτυπος

Structural timber value increases in 10€/m3 approximately

Ειδικές προαπαιτούμενες γνώσεις

Knowledge about Phisical-mechanical properties of wood. Harmonized rules

Δυνατότητες διακίνησης

300,000 m3

Δυναμικό βιωσιμότητας - Αξία

--

Ευκολία υλοποίησης

Very easy

Ευκολία εφαρμογής - Αξιολόγηση

--

Βασικά προαπαιτούμενα

Experience on manufacturing and classification of structural timber

Τύπος εκδήλωσης στην οποία έχει παρουσιαστεί αυτός ο **BPI**

--

Δυνατότητες εργασίας

Positive through better competitiveness

Κόστος υλοποίησης (ευρώ - **€**)

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needed

Περισσότερες λεπτομέρειες

Πρόκληση η οποία αντιμετωπίζεται

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Όνομα χώρου

Δασική βιομηχανία, βιοκυκλική οικονομία

Βιομηχανία ξύλινων κατασκευών

Τύπος λύσης

--

Λέξεις κλειδιά

--

Ψηφιακή λύση

όχι

Καινοτομία

Όχι

Χώρα προέλευσης

Ισπανία

Κλίμακα της εφαρμογής

Εθνικό

Έτος έναρξης και λήξης

2011 -

Στοιχεία επικοινωνίας

Ιδιοκτήτης ή συγγραφέας

edgar.lafuente@cesefor.com

Αναφορεάς

REFERENCES AND RESOURCES

Κύριος ιστότοπος

http://www.cesefor.com

Ιστότοπος έργου

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Αναφορά έργου

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Πηγές

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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