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.

PODROBNOSTI

IZVOR LESA
Industrija

TIP LESA
Okrogli les

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

VPLIV NA OKOLJE IN BIODIVERZITETO
Positive, it mobilizes wood with a proper forest management

VPLIV NA PRIHODKE
Positive, more quality timber is mobilized

POTENCIAL IZKORIŠČANJA
--

VOZLIŠČE
--

GOSPODARSKI VPLIV
Structural timber value increases in 10€/m3 approximately

POTREBNO SPECIFIČNO ZNANJE
Knowledge about Phisical-mechanical properties of wood. Harmonized rules

POTENCIAL ZA MOBILIZACIJO
300,000 m3

TRAJNOST - VREDNOST
--

ENOSTAVNOST IZVEDBE
Very easy

ENOSTAVNOST IZVEDBE - OCENJEVANJE
--

KLJUČNI PREDPOGOJI
Experience on manufacturing and classification of structural timber

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

VPLIV NA DELOVNA MESTA
Positive through better competitiveness

STROŠKI IZVEDBE (EURO - €)
--

needed

VEč PODROBNOSTI

IZZIV

--

DOMENA

Gozdno-lesna industrija, krožno gospodarstvo

Lesena gradnja

TIP REŠITVE

--

KLJUČNE BESEDE

--

DIGITALNE REŠITVE

No

INOVACIJA

Ne

IZVORNA DRŽAVA

Španija

OBSEG UPORABE

Nacionalni

ZAČETNO IN KONČNO LETO

2011 -

KONTAKTN PODATKI

LASTNIK OZ. AVTOR

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POROČEVALEC

REFERENCES AND RESOURCES

SPLETNA STRAN

http://www.cesefor.com

SPLETNA STRAN PROJEKTA

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REFERENCA PROJEKTA

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VIRI

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PROJEKT, V OKVIRU KATEREGA SO BILI ZBRANI OSNOVNI PODATKI

Rosewood

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