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.

DETTAGLI

ORIGINE DEL LEGNO
Industria

TIPO DI LEGNO
Fusto

TIPO DI LEGNO IN QUESTIONE
Pinus sylvestris, Pinus nigra, Pinus radiata, Pinus pinaster, Pseudotsuga menziessii, Larix sp, Quercus rubra, Abies alba

IMPATTO SULL'AMBIENTE E LA BIODIVERSITà
Positive, it mobilizes wood with a proper forest management

EFFETTO SUL REDDITO
Positive, more quality timber is mobilized

POTENZIALE DI SFRUTTAMENTO
--

HUB
--

IMPATTO ECONOMICO
Structural timber value increases in 10€/m3 approximately

CONOSCENZE SPECIFICHE NECESSARIE
Knowledge about Phisical-mechanical properties of wood. Harmonized rules

POTENZIALE DI MOBILITAZIONE
300,000 m3

POTENZIALE SOSTENIBILITà - VALORE
--

FACILITà DI IMPLEMENTAZIONE
Very easy

FACILITà DI IMPLEMENTAZIONE - VALUTAZIONE
--

PREREQUISITI CHIAVE
Experience on manufacturing and classification of structural timber

TIPO DI EVENTO IN CUI QUESTO BPI è STATO PRESENTATO
--

EFFETTO SUL LAVORO
Positive through better competitiveness

I COSTI DI ATTUAZIONE (EURO - €)
--

needed

Più DETTAGLI

SFIDA RISOLTA

--

DOMINIO

industrie forestali, bio / economia circolare

industria delle costruzioni in legno

TIPO DI SOLUZIONE

--

PAROLE CHIAVE

--

SOLUZIONE DIGITALE

No

INNOVAZIONE

No

PAESE D'ORIGINE

Spagna

SCALA DI APPLICAZIONE

Nazionale

INIZIO E FINE ANNO

2011 -

CONTATTI

PROPRIETARIO O AUTORE

edgar.lafuente@cesefor.com

REPORTER

REFERENCES AND RESOURCES

SITO PRINCIPALE

http://www.cesefor.com

SITO WEB DEL PROGETTO

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PROGETTO DI RIFERIMENTO

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RISORSE

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PROGETTO NELL'AMBITO DEL QUALE QUESTA SCHEDA è STATA CREATA

Rosewood

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30 Ago 2019

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