# 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.

## DETALLES

### ORIGEN DE LA MADERA

Industria

### TIPO DE MADERA

Madera en rollo

### TIPO DE MADERA AFECTADA

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

### IMPACTO EN EL MEDIO AMBIENTE Y LA BIODIVERSIDAD

Positive, it mobilizes wood with a proper forest management

### EFECTO SOBRE LOS INGRESOS

Positive, more quality timber is mobilized

### POTENCIAL DE EXPLOTACIóN

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### HUB

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### IMPACTO ECONóMICO

Structural timber value increases in 10€/m3 approximately

### CONOCIMIENTOS ESPECíFICOS NECESARIOS

Knowledge about Phisical-mechanical properties of wood. Harmonized rules

### POTENCIAL DE MOVILIZACIóN

300,000 m3

### POTENCIAL DE SOSTENIBILIDAD - VALOR

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### FACILIDAD DE APLICACIóN

Very easy

### FACILIDAD DE IMPLEMENTACIóN - EVALUACIóN

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### PREREQUISITOS CLAVE

Experience on manufacturing and classification of structural timber

### TIPO DE EVENTO EN EL QUE SE HA PRESENTADO ESTA IFS

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### EFECTO SOBRE EL EMPLEO

Positive through better competitiveness

### COSTES DE IMPLEMENTACIóN (EURO - €)

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needed

## MáS DETALLES

**RETO ABORDADO**

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**DOMINIO**

Industrias forestales, economía biocircular

Industria de la construcción con madera

**TIPO DE SOLUCIóN**

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**PALABRAS CLAVE**

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**SOLUCIóN DIGITAL**

No

**INNOVACIóN**

No

**PAíS DE ORIGEN**

España

**ESCALA DE APLICACIóN**

Nacional

**AñO DE INICIO Y FIN**

2011 -

## DATOS DE CONTACTO

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**REPORTADOR**

## REFERENCES AND RESOURCES

**SITIO WEB PRINCIPAL**

http://www.cesefor.com

**SITIO WEB DEL PROYECTO**

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**REFERENCIA DEL PROYECTO**

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**RECURSOS**

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PROYECTO BAJO EL QUE SE HA CREADO ESTA FICHA

Rosewood

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