



With the contribution of the European Union's
LIFE financial instrument LIFE20 CCM/ES/001656



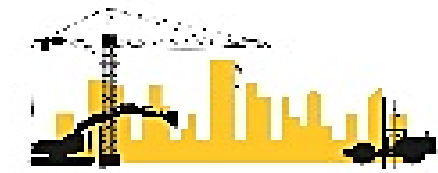
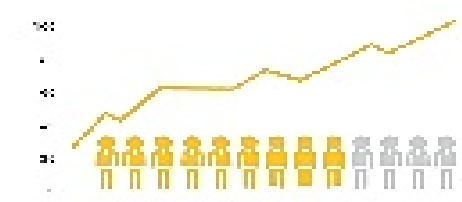
**LIFE WOOD
FOR FUTURE**

Recovery of Granada-Vega poplar groves to boost biodiversity and long- term carbon capture through structural bioproducts

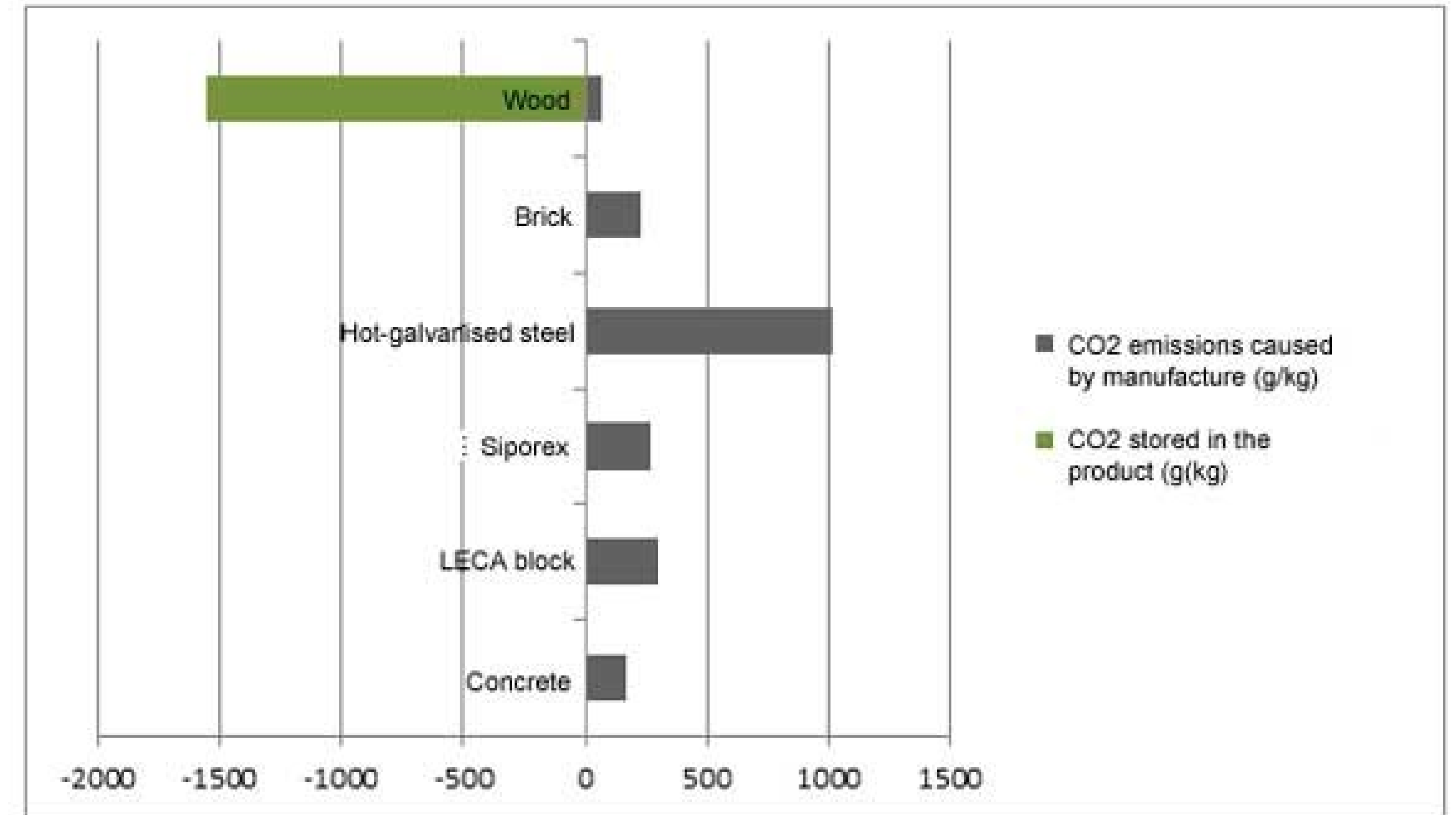
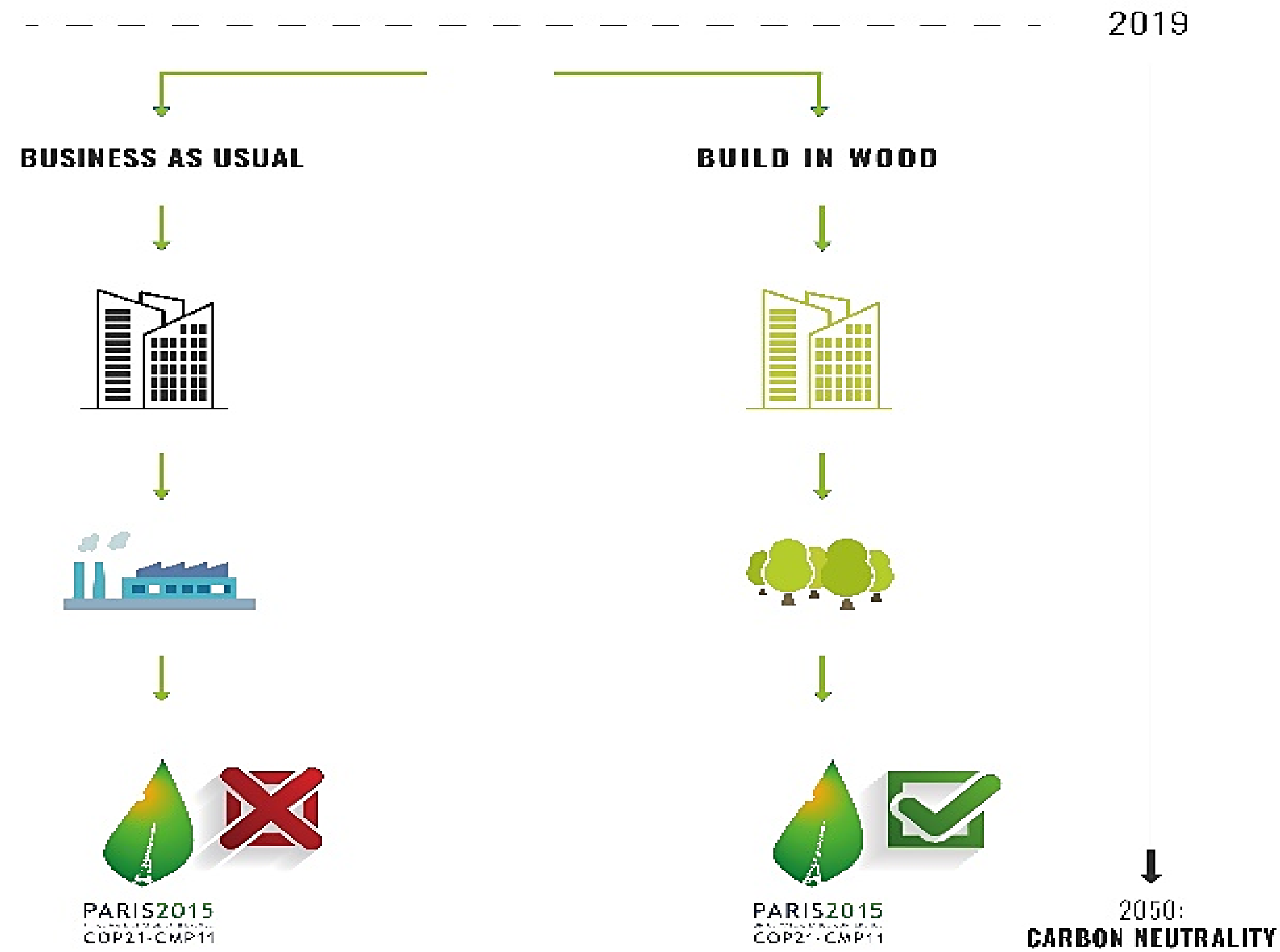
Boris Hinojo
3edata

Partner of LIFE Wood for Future



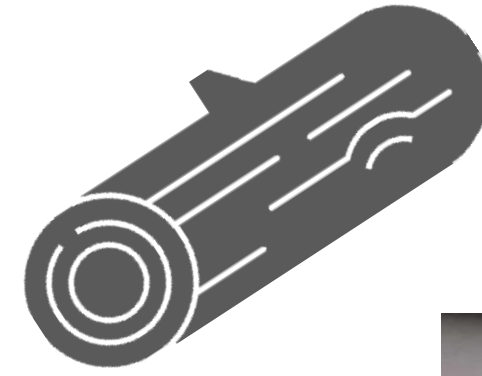


RISING POPULATION + URBANISATION = **BUILDING DEMAND**

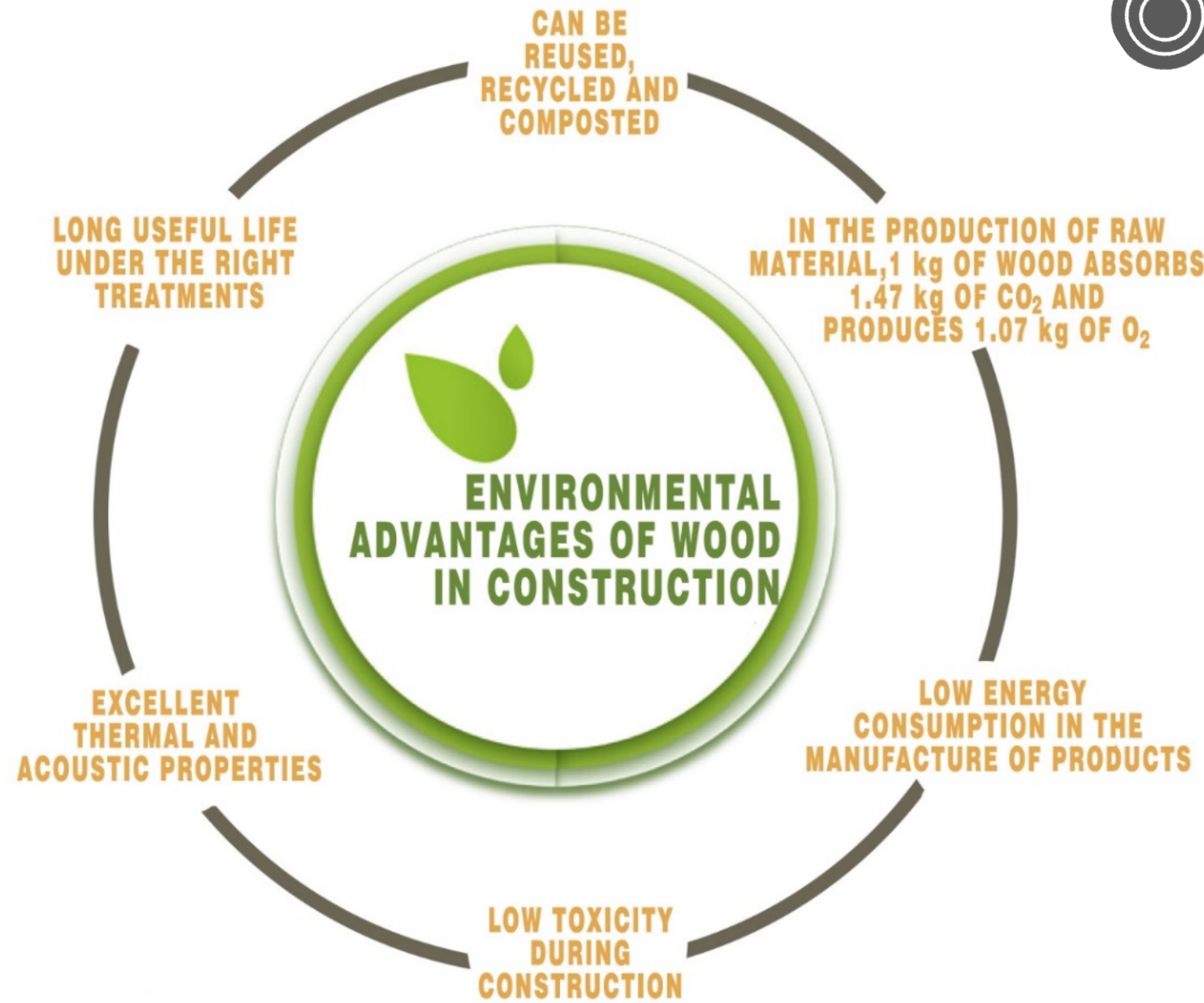


Timber is an excellent option for carbon neutrality of the building sector

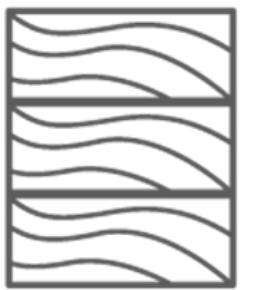




Solid timber



Engineered wood products





Social need for a development compatible with a lower ecological footprint, climate change mitigation, and fighting rural depopulation

- ODS
- European Green Pact
- European Biodiversity Strategy
- Adaptation and Mitigation of Climate Change Strategy
- EU Forestry Strategy

Sharp drop in the extension of poplar crops in the Vega de Granada (South-Spain)

**20 years
4,500 ha lost
75% poplar goves**





CAUSE

Loss of competitiveness and profitability compared to arable crops (corn, asparagus, garlic, etc.).

¿Why?

Lack of Innovation throughout the Value Chain





Project LIFE Wood for Future



Recovery of Granada-Vega poplar groves to boost biodiversity and long-term carbon capture through structural bioproducts





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Project LIFE Wood for Future

PROJECT LOCATION: Granada, Andalucía (Spain)

BUDGET INFO:

Total amount: 2,985,886 €

% EC Co-funding: 55 % 

DURATION: Start: 01/09/2020 - End: 30/09/2021

PROJECT'S BENEFICIARIES:

Coordinating Beneficiary:

Universidad de Granada



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ugr.es

Associated Beneficiaries:

Universidad de Santiago de Compostela

Confederación de Organizaciones de Selvicultores de España

Diputación Provincial de Granada

3edata ingeniería ambiental



 **Project area**
 **Beneficiaries**



pemade.com



selvicultor.net



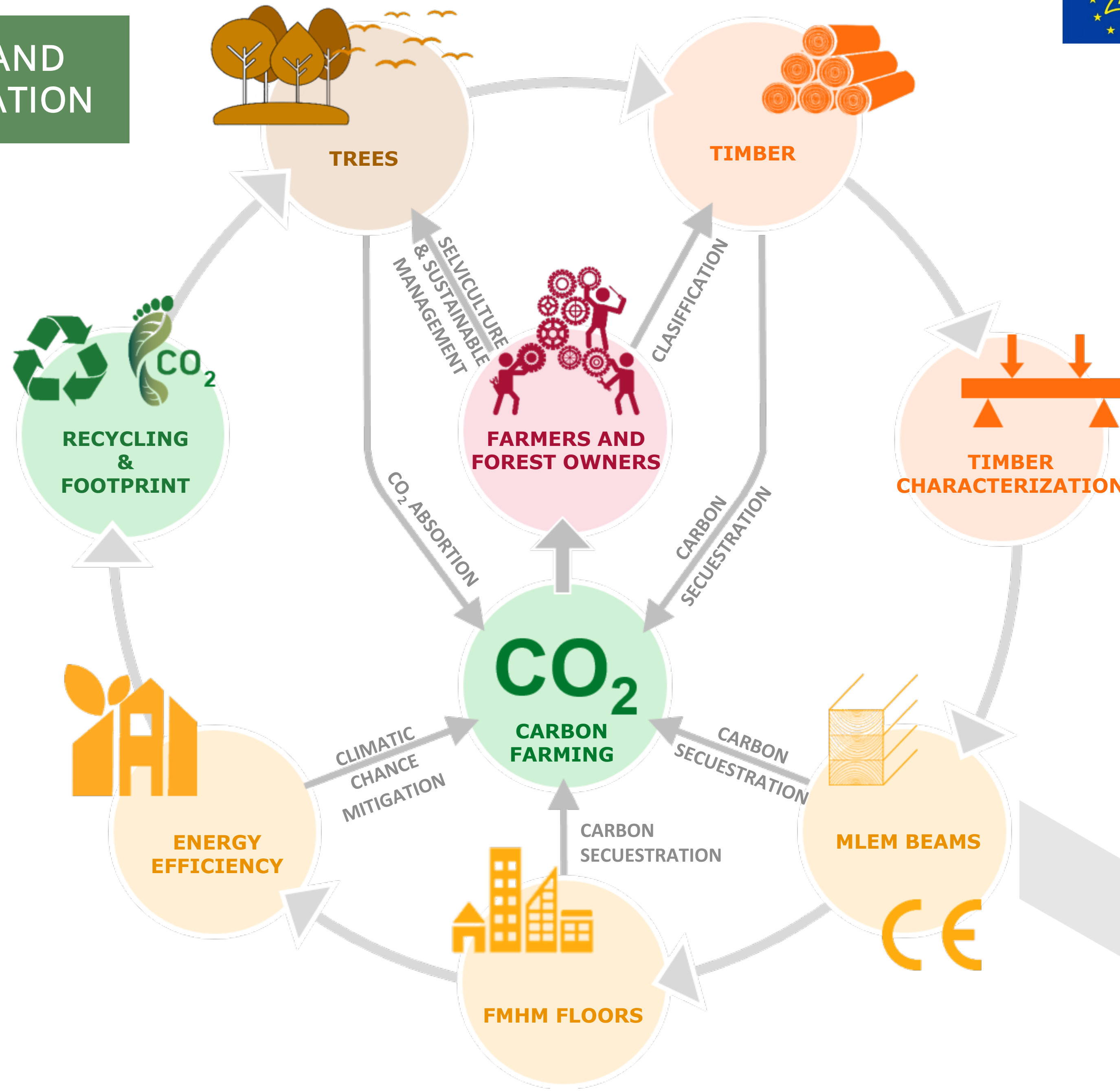
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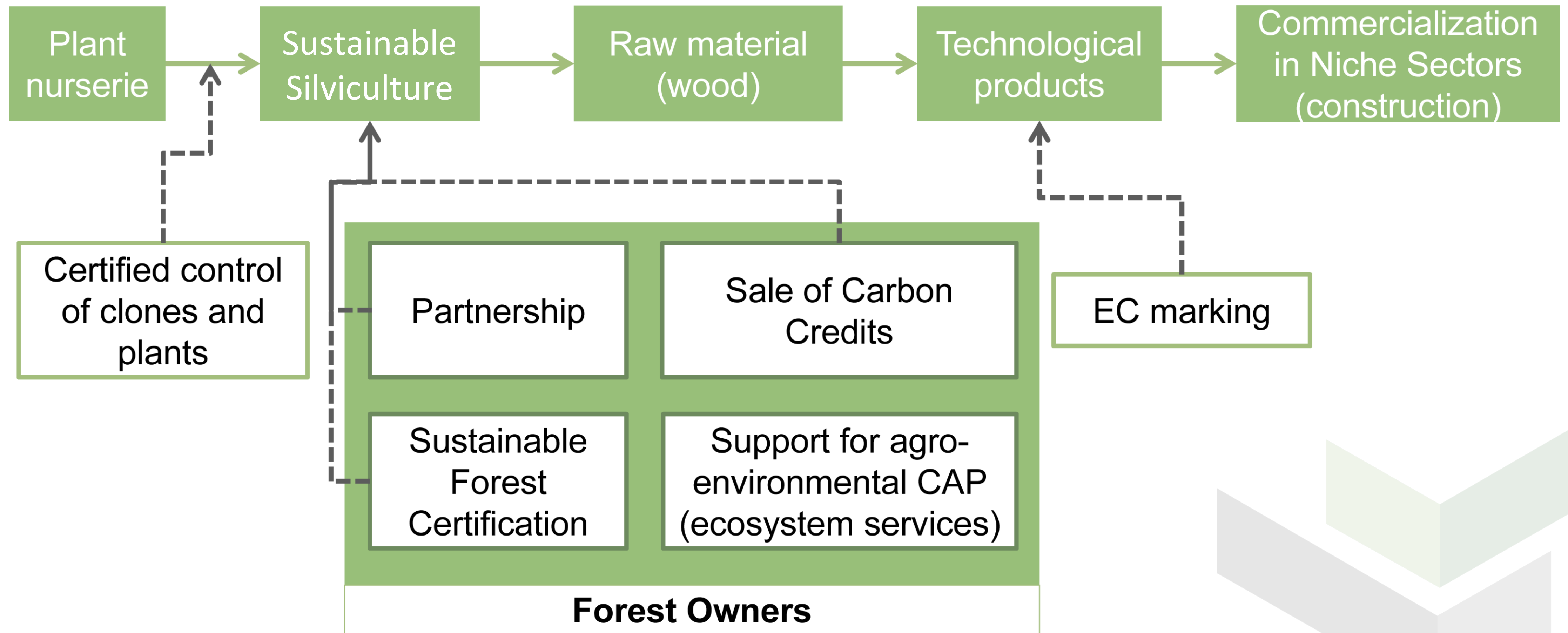
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CIRCULAR BIOECONOMY AND CLIMATIC CHANGE MITIGATION







A. Preparatory actions (if needed)

A1 Analysis of producer grouping models and silvicultural models for their application

A2 Analysis of Carbon Farming schemes

C. Implementation actions (obligatory)

C1 Implementation of an innovative model of rural property management in agroforestry areas: Eco-Producer Associations and sustainable forestry models

C2 Implementation and application of Carbon Farming schemes

C3 Establishment of certified poplar plant nursery

C4 Development of Tree Inspection kit tool for non-destructive wood grading

C5 Characterisation of poplar wood with performance adapted to MCLam and MCLam BS construction systems

C6 Development of MCLam structural products

C7 Development of a mixed structural system for the reduction of the carbon footprint in buildings [MCLam BS]

C8 Certification, design of architectural proposals, construction solutions and demonstration

C9 Business and commercialisation strategy LIFE Wood for Future

C10 Strategy for replicability and transferability of results. Networking with other projects

D. Monitoring of the impact of the project actions (obligatory)

D1 Monitoring of the impact on CO2 emissions

D2 Monitoring of the impact on environmental and socio-economic indicators

D3 Assessment of the impact on ecosystem services

D4 Monitoring and measurement of specific LIFE indicators

E. Communication and dissemination of results (obligatory)

E1 Awareness-raising and dissemination of project results

E2 Collaborative digital platform. Participation and dynamisation of the target public and agents involved

F. Project management (obligatory)

F1 Project coordination, management and monitoring

F2 After-LIFE Wood for Future Plan

ACTIONS



IMPLEMENTATION ACTIONS



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NURSERY

A certified *Populus sp.* plant nursery will be created. for timber and environmental use in the Provincial Nursery of the County Council of Granada.



IMPLEMENTATION ACTIONS



PILOT PLANTATIONS

Pilot plantations will be established in the Vega de Granada that apply sustainable forest management for the production of quality wood for structural products.



IMPLEMENTATION ACTIONS



ASSOCIATION OF POPLAR LAND OWNERS

An Association of Poplar Ecoproducers will be created to apply a forestry model with certified sustainable forest management and *Carbon Farming* schemes to value the capture of CO₂ from poplar groves.



IMPLEMENTATION ACTIONS



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CARBON FARMING

A system for the sale of carbon credits will be designed to be integrated into the market that generates additional income for the owners of poplar trees and reduces the carbon footprint of companies and entities.



IMPLEMENTATION ACTIONS



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ENVIRONMENTAL RESTORATION

At least 2 km of riverbanks will be restored in the Vega de Granada using native *Populus spp.* And other native species of riverbanks



IMPLEMENTATION ACTIONS



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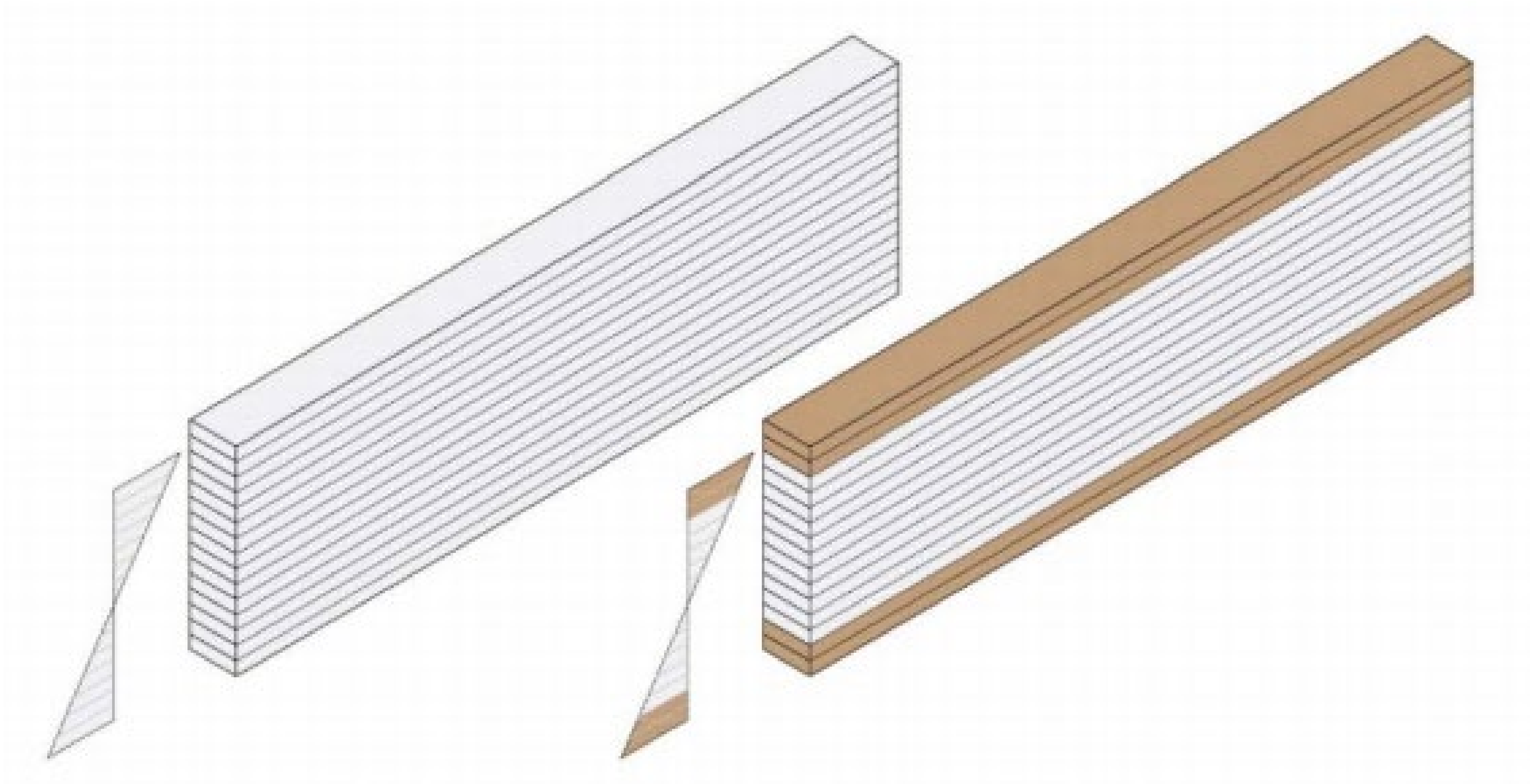
TIMBER CHARACTERIZATION

The poplar wood of the MC done will be characterized and brought to standard for structural use, in standing trees and in sawn planks, grading a resistance class T (traction) that allows its use in structural laminated products.





MCLam



Glulam beams: Homogeneous using only poplar and mixed using poplar and pine





MCLam BS



Mixed product: Timber (Glulam beams based on poplar) and concrete.
Industrialized solution for structural use

IMPLEMENTATION ACTIONS



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PILOT BUILDING

The *MCLam* and *MCLam* BS products will be applied in constructions that allow the proposed technology to be evaluated at a real level and serve as demonstrative examples for its future prescription and expansion in the market.



IMPLEMENTATION ACTION

TRANSFER, REPLICABILITY AND CLOSE-TO-MARKET

Design of a strategy for the transfer and commercialization of the project's products, as well as for the replication of its results in other territories.



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MONITORING ACTIONS



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ENVIRONMENTAL BENEFITS

An assessment will be made of the environmental benefits provided by the project in all its areas in the area of action, the Vega de Granada.



COMMUNICATION ACTIONS



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ENGAGING

Involving key stakeholders:

- Landowners
- Carbon credits entities
- Architects & Promoters
- Industrial sector
- Final users
- Investors
- Collaborators
- Society



EXPECTED RESULTS

- We put in value the local wood resources coming from valleys (poplars) and mountains (pines)
- We reach the building market joint with its "star material", concrete (accepted by professionals, builders and users)
- We promote industrialized construction: local industry
- We reduce the ecological footprint of the building sector

NORTHWEST

FAST GROWING TIMBER

- Poplar MC Clon (15 years)
- No structural use yet

SOUTHEAST

FAST GROWING TIMBER

- Poplar MC Clon (9 years)



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LIFE WOOD FOR FUTURE will boost cooperation between all the actors throughout the entire value chain:



Forest owners: Poplar Owners Association who will implement a network of demonstration plots using a sustainable forestry for producing quality wood. COSE represents the private forest owners in Spain



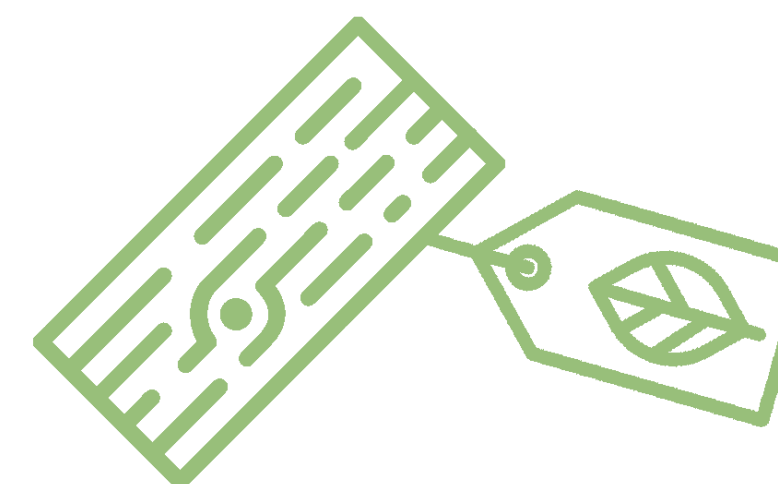
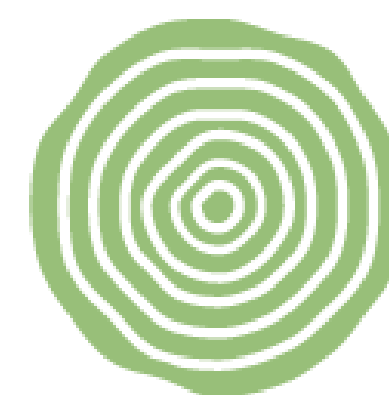
Architects: Training for design and execution of buildings with wood



Promoters and construction companies: Training for construction with timber. Demonstration buildings



Industry: Industrialists and investors. They will have the opportunity for a new local business (laminated wood industry and sustainable construction). Local industry plays a key role.



Public research entities (knowledge transfer):

- IFAPA (Research at the level of forest plantations and ecosystem benefits)
- University of Granada: Mechanical properties of poplar wood
- University of Santiago de Compostela: Development of structural products



LIFE WOOD FOR FUTURE will boost cooperation between all the actors throughout the entire value chain:

Public governance entities at the local, province and regional levels:

- Local nursery for timber production and restoration (County Council of Granada)
- Promote direct aids to the sector (CAP)
- Promote public and private sustainable construction with wood
- Promote the circular bioeconomy
- Promote rural development



Society:

- Environmental and cultural benefits (We will boost the participation of local associations in defense of local cultural values and ecological values like: Salvemos La Vega, ACCC, Bosques para el Futuro)
- Restoration of the Dílar Riverbank in cooperation with Local Associations, County Council Granada, Local Administrations (municipalities), and research institutions (UGR-Botanic and Zoology, IFAPA-Environment and environmental restoration)



EXPECTED RESULTS



Promoting Sustainable Forest Management

Changing to a sustainable building model

Climate Action

Improving environment and biodiversity

Engaging landowners and industry in climate action and conservation

Business approach

Carbon storage
Reduction of greenhouse gas emissions (GHG)

Sustainable Forest Management increased
Resilience to flooding improved
Soil Surface improved

Water consumption reduction

Nitrogen reduction in aquifers

Restoring habitat. Riverbanks

Natural vegetation stripes

End of the project

5 years beyond

>7,000 tCO₂

>80,000 tCO₂

100 ha

>900 ha

>50 m³

>4,000 m³

>30 ton N

>250 ton N

2 km

4 km

20 km

190 km

EXPECTED RESULTS

Promoting Sustainably Forest Management

Changing to a sustainable building model




Climate Action

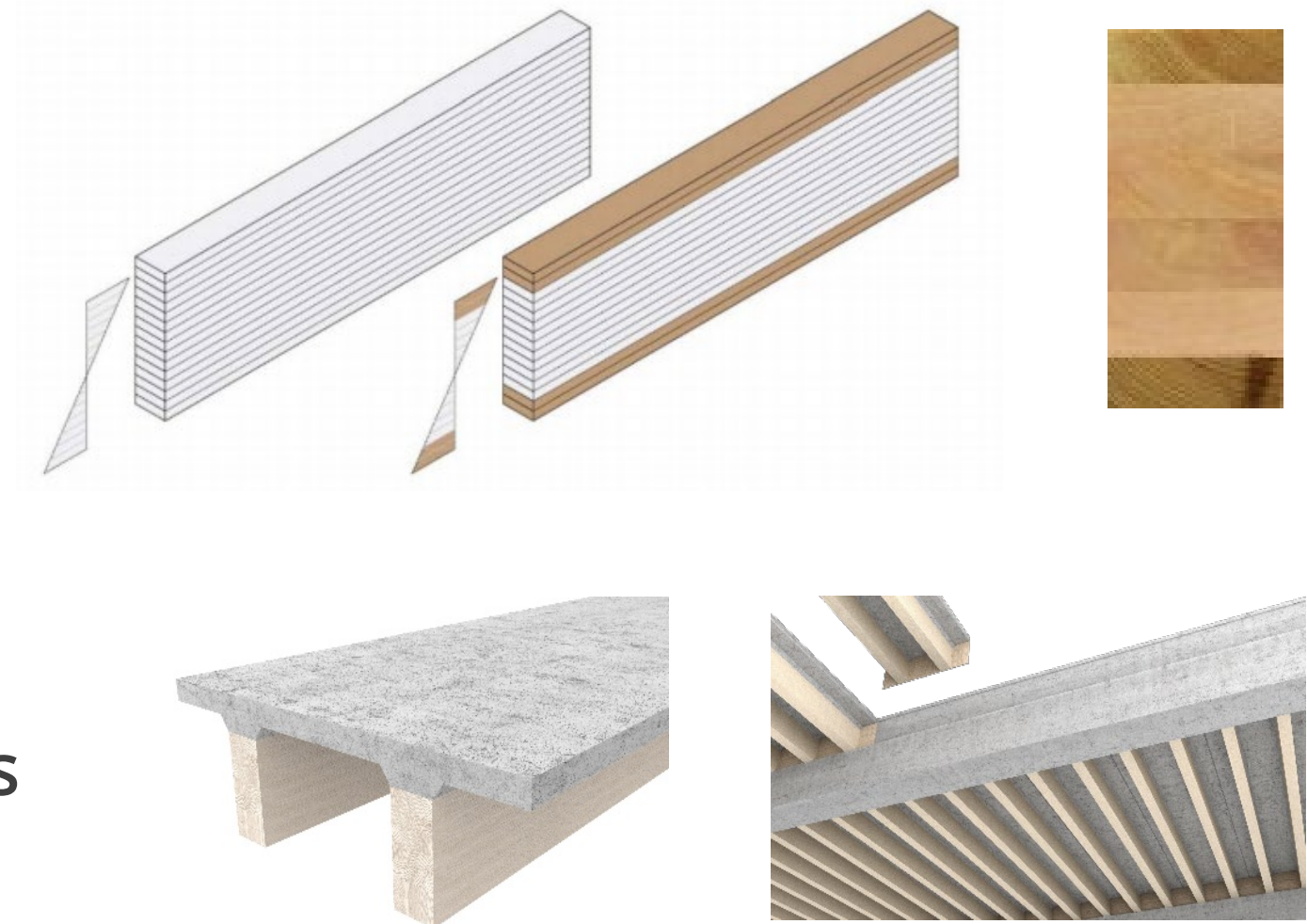
Improving environment and biodiversity

Engaging landowners and industry in climate action and conservation

Business approach

Structural bioproducts based in poplar wood
Tree Inspection Kit

-  Commercialize
-  Manufacture through company alliances
-  Alliances with compatible companies/products





THANKS FOR YOUR ATTENTION

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<https://www.linkedin.com/in/life-wood-for-future-514106221/>



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