

# All hands on deck for the rise of wood construction in Europe

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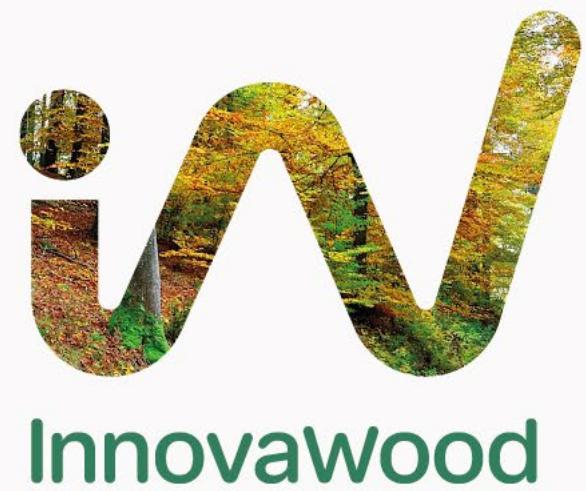
Interactive webinar on wood in Ukraine's green recovery and development  
«European initiatives for green building with wood:  
experience and lessons for Ukraine»

Online – 14 November 2024

DOI: 10.5281/zenodo.14178129



Co-funded by  
the European Union



The European Network  
for **Wood** Research,  
Innovation and Education





Innovawood



NTNU OMRE Norwegian University of Life Sciences

NIBIO NORWEGIAN INSTITUTE OF BIODECOMPOSITION RESEARCH  
Treteknisk NORsus

RISE SLU Linnaeus University

LiU LULEÅ UNIVERSITY OF TECHNOLOGY

TEKNOLOGISK INSTITUT

Ollscoil Teangeolaíochta Áitiúil Atha Cliath  
Athlone Technological University DUBLIN  
TECHNISCHE UNIVERSITÄT DÜSSELDORF

bre BC

DKU

THÜNEN Fraunhofer WKI  
UH RWTH AACHEN UNIVERSITY  
RWTH AACHEN UNIVERSITY  
Landesbetrieb Wald und Holz Nordrhein-Westfalen  
Technische Hochschule Rosenheim

LUXEMBOURG WOOD CLUSTER  
SHR TU Delft  
HO GENT  
Ghent University  
WOOD.WIZE  
WOOD.BE  
LIÈGE université  
Gembloux Agro-Bio Tech

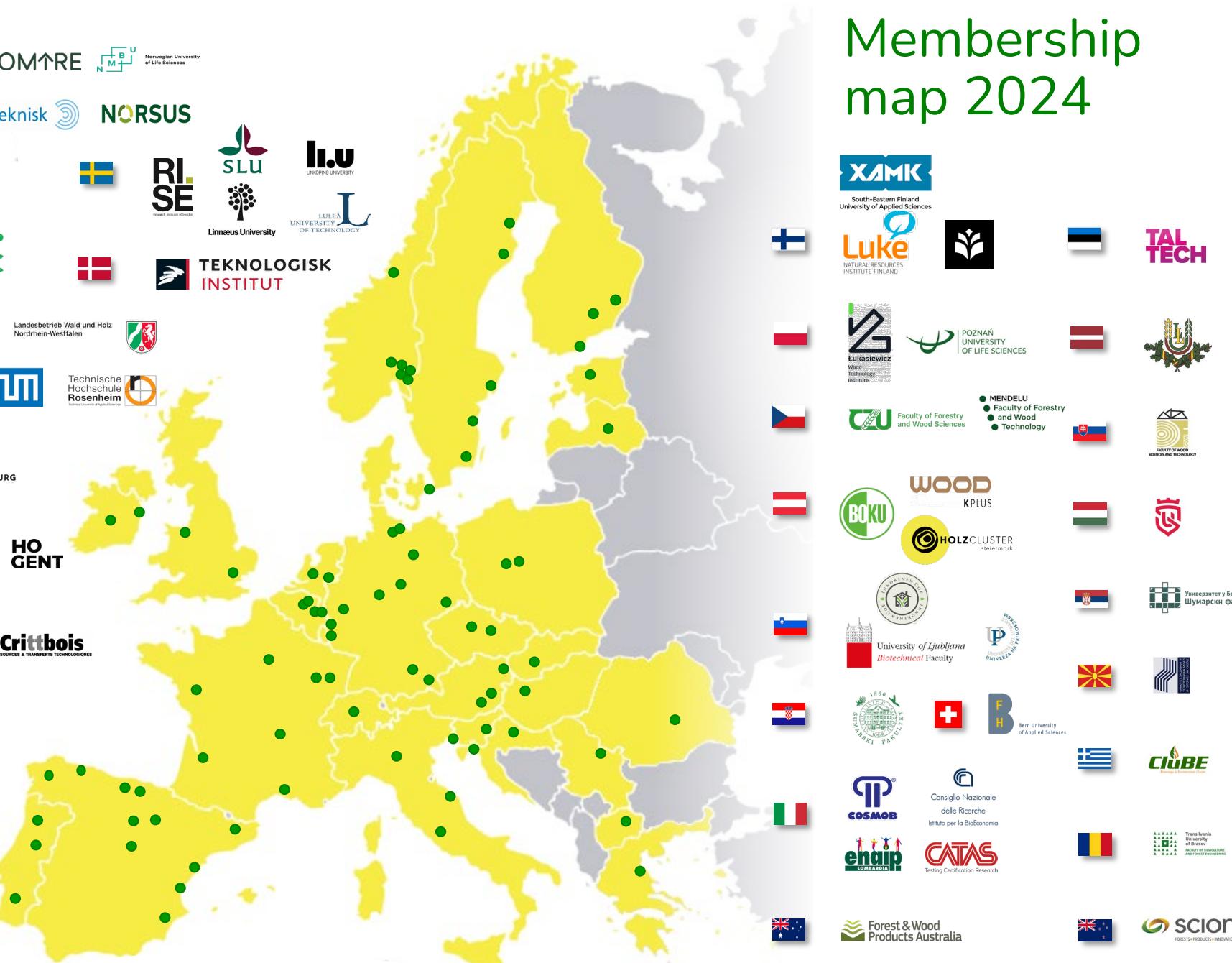
FCBA INSTITUT TECHNOLOGIQUE  
esb  
INP Enstib EPINAL  
LORRAINE INIA  
cirdat Xylofutur  
Sciences du Bois  
Crittbois

tecnal:a cesefor CTFC

AIDIMME INSTITUTO TECNOLÓGICO  
CETEM

CETEMAS  
BaskEgur  
DOG  
AXENIA GALLEGAS DE INVESTIGACIONES FORESTALES

Iaac  
Politécnico de Viseu  
CEF  
CFPIMM



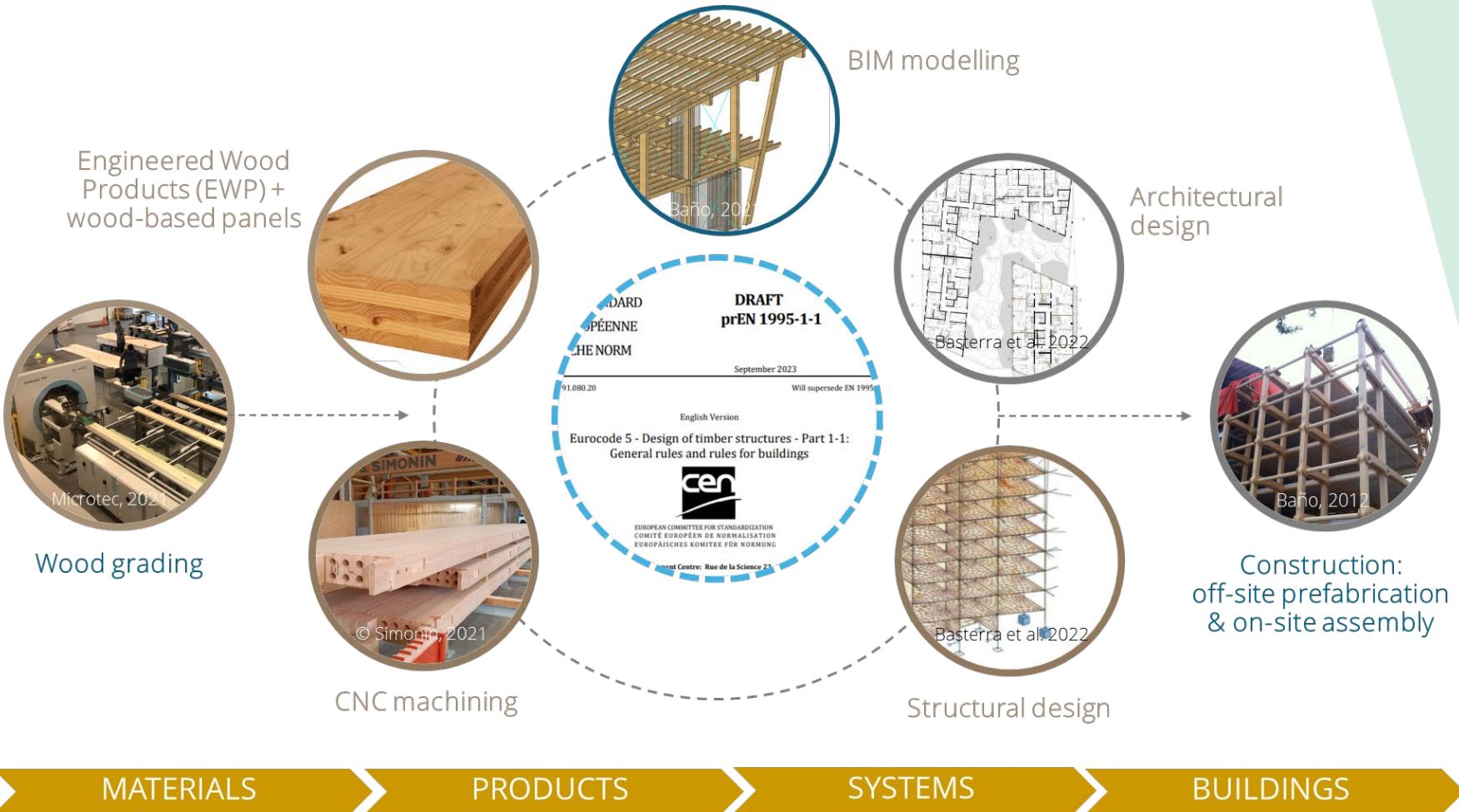
# Membership map 2024







WHAT?



# WHAT?

MATERIALS

PRODUCTS

SYSTEMS

BUILDINGS

## Trending now

- Circular design for deconstruction and reuse
- Resawmills (from old/used to new construction elements)
- Large scale industrial production
- Parametric design
- New innovative materials (biobased, carbon negative)
- Lighthouse demonstrators
- Wood construction across all continents
- New European Bauhaus
- ...

WHAT?

# Key factors for the rise of wood construction during the last 30 years



All hands on deck for the rise of wood construction in Europe

Picture: [Allan Villiers](#)

HOW?  
WOOD?

# Key factors for the rise of wood construction during the last 30 years

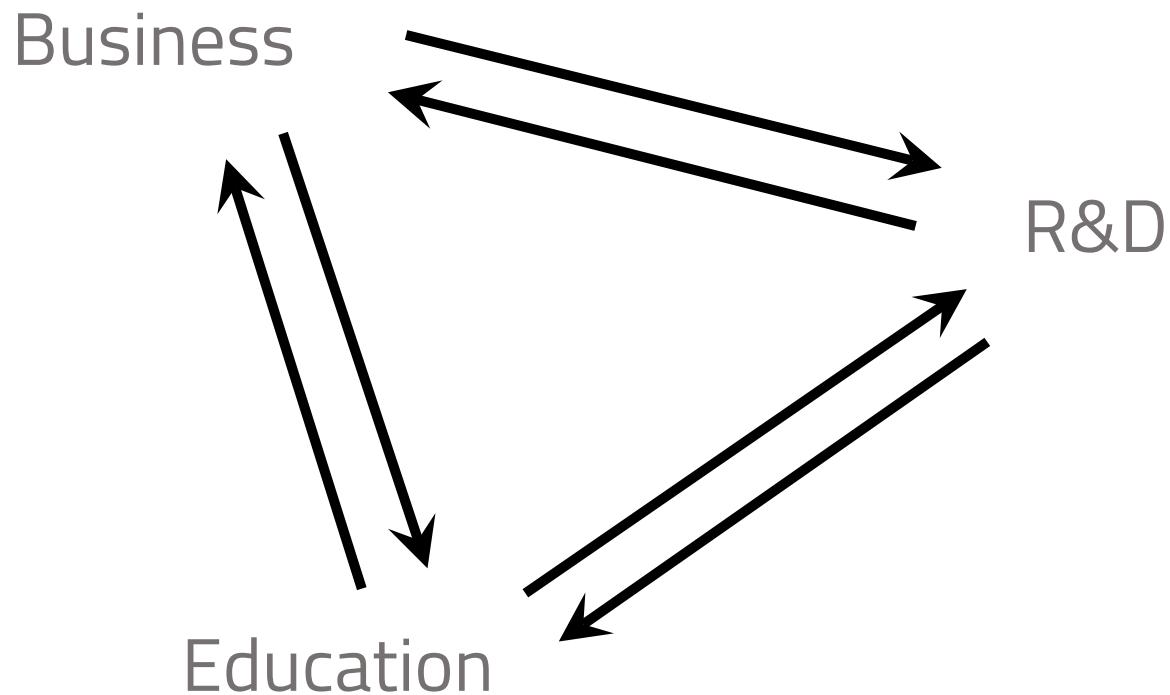
- Major competitiveness shifts across Europe following the cold war era and the rise of new global players e.g. China
- Pioneering work and joint efforts of business, research and education
- International dialogue and exchange
- Focus on quality and solving technical issues
- Major innovations in Engineered Wood Products EWP, e.g. Cross Laminated Timber CLT
- Industrialised off-site production
- Digitalisation, e.g. CAD, CNC, BIM, DT
- New European Bauhaus
- Sustainable Forest Management SFM
- Money ;)



Picture: Allan Villiers

# Key factors during the last 30 years

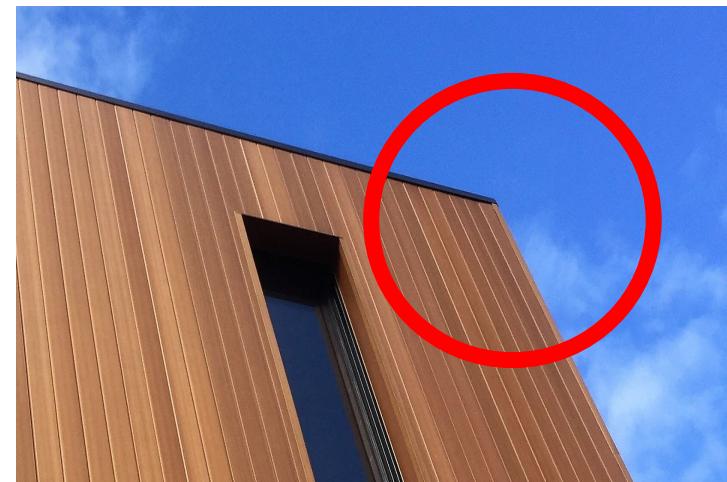
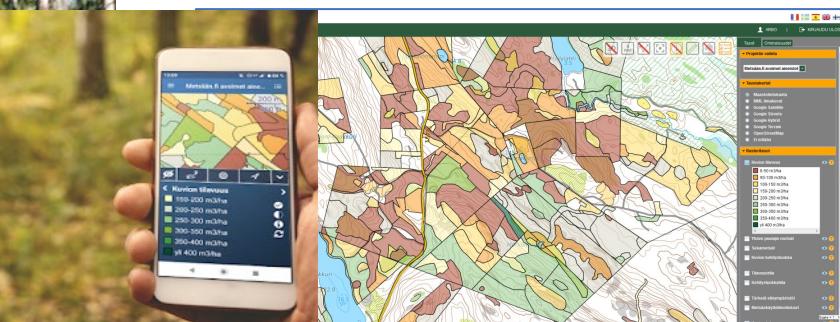
- Pioneering work and joint efforts of business, research and education
- International dialogue and exchange



# Key factors during the last 30 years

Focus on quality and solving technical issues

- Water and humidity (condensation, roof, moist rooms)
- Fire
- Thermal insulation
- Sound insulation
- ...
- Sustainable Forest Management SFM



# New European Bauhaus

## A call for bio-materials and nature-based solutions



*"We know that the construction sector can even be turned from a carbon source into a sink, if **organic building materials** like wood and smart technologies like AI are applied.'*

**Ursula von der Leyen**

President of the European Commission

State of the Union Address, Brussels, 16 September 2020



***"Reforesting the planet, retimbering the cities: timber construction is a true silver bullet for climate change."***

**Prof. John Schellnhuber**

Director Emeritus of the Potsdam Institute for Climate Impact Research

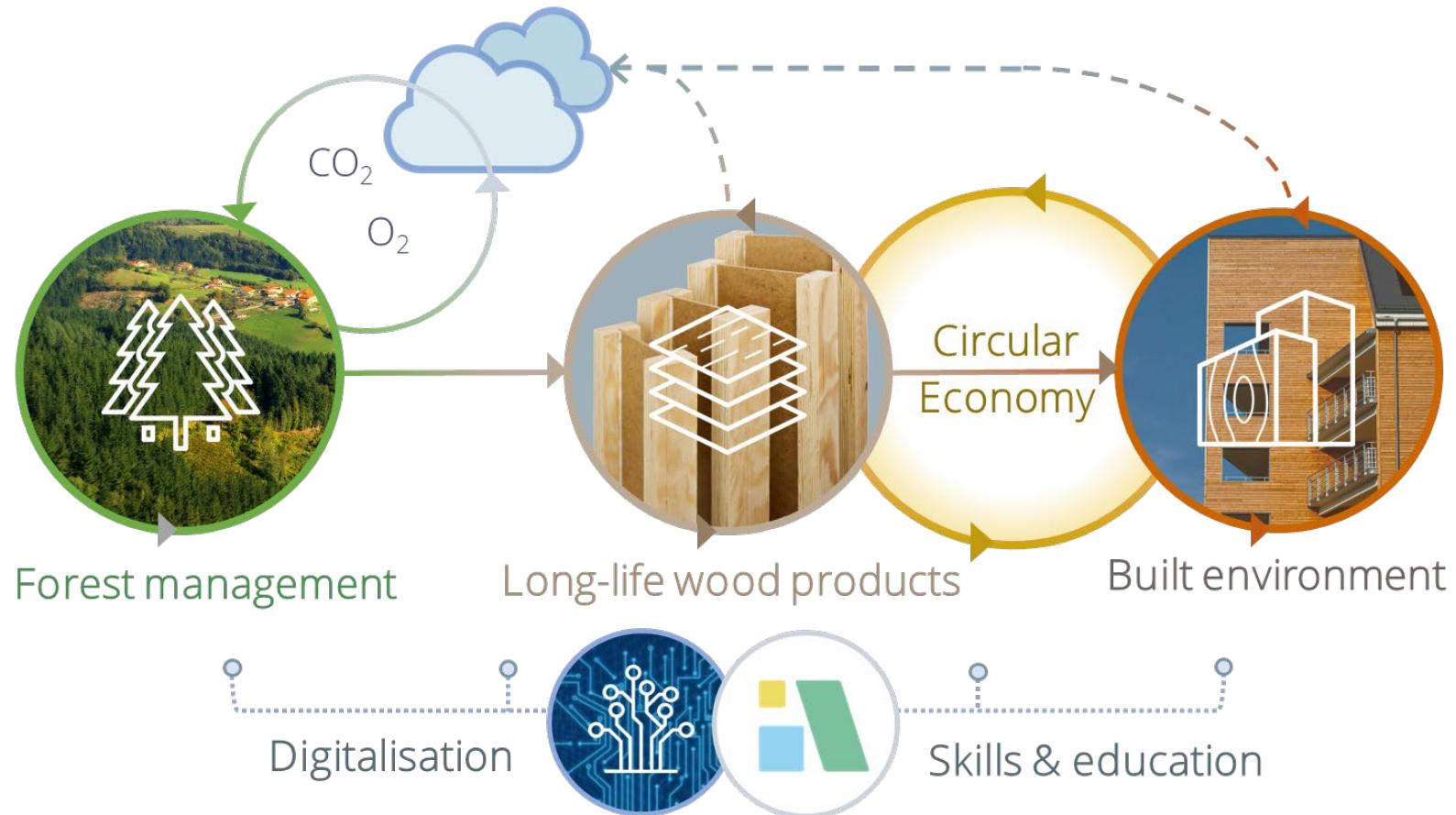
Director General of International Institute for Applied Systems Analysis (IIASA)

Wood4Bauhaus Conference, 8 April 2021



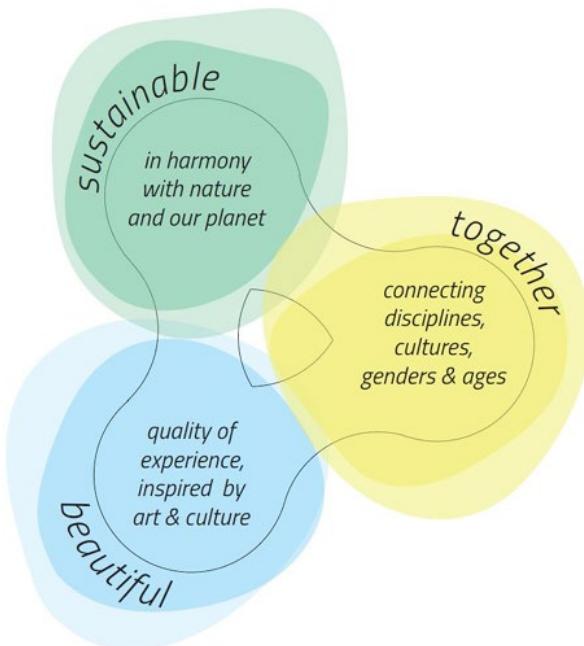
## The narrative part 1:

# Cities as carbon sinks – upscaling long-life wood construction



## The Narrative part 2:

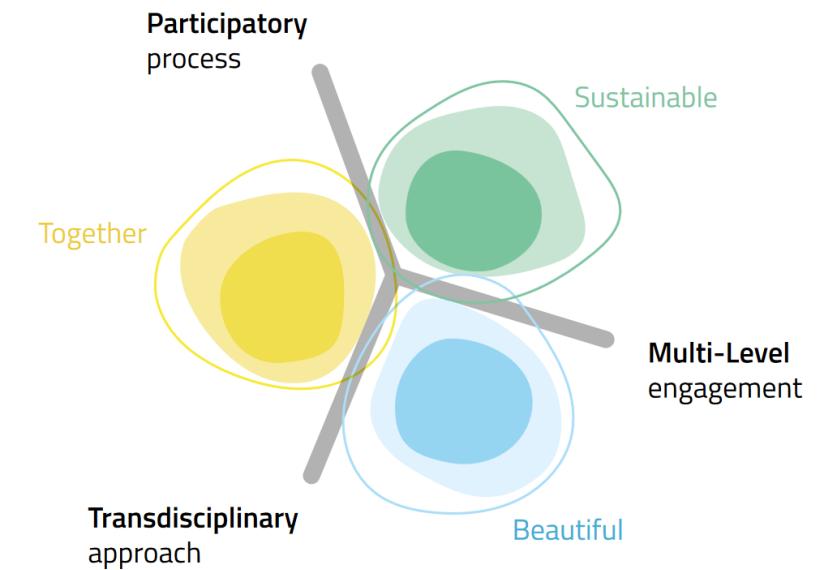
# Compelling values, methodologies and tools to connect stakeholders and policy makers



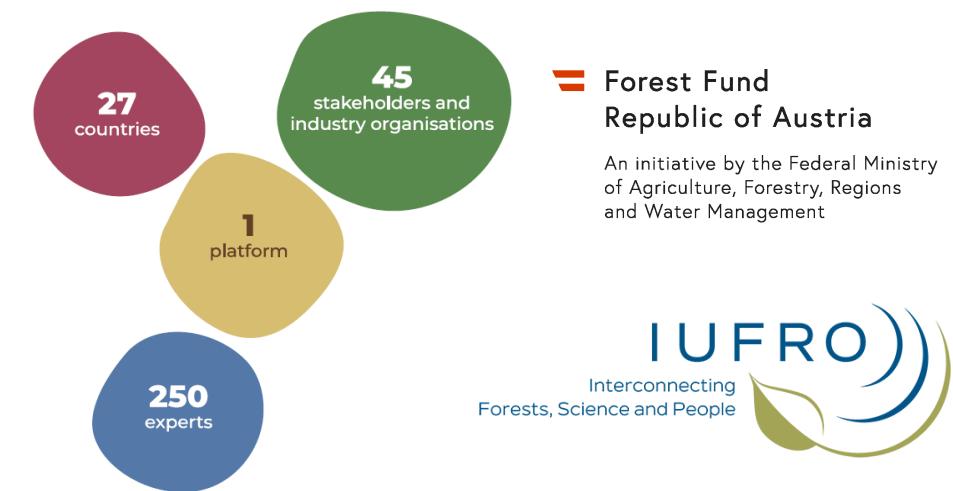
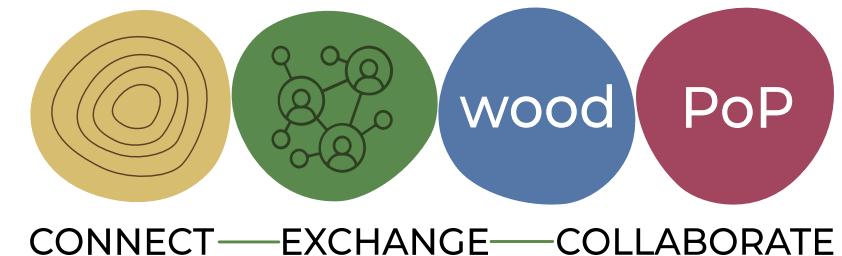
### Co-creation

- Onboarding relevant stakeholders
- Identify holistic solutions accounting for all stakeholder needs
- Convince and reduce risk for funding agencies

- NEB Values
- NEB Compass
- NEB Toolbox
- NEB Self-Assessment Tool
- NEB Investment Guidelines
- NEB Lab (NEB Partners)
- ...



# Building sector alliances to connect stakeholders and policy makers



# Building sector alliances to connect stakeholders and policy makers



New European Bauhaus Academy Pioneer Hub for Sustainable Built Environments with Renewable Materials



P | gdi | NOC | Republic of Slovenia | Funded by the European Union | NextGenerationEU

**wood4bauhaus**

Wood Sector Alliance for the New European Bauhaus

Research Needs  
Sustainable Construction under the E

There is a clear need to close scientific gaps in the transformation of the construction sector. The potential for climate change mitigation, the research and innovation support in the construction sector.

Policy recommendations to encourage nature-based materials like wood in construction and renovation of the built environment

The Wood4Bauhaus Alliance is convinced that a refurbished and energy efficient Europe has a key role to play in the post Covid-19 recovery and will pave the way for the development of Europe's largest energy consuming sectors<sup>1</sup>. The transformation of the building and construction sector must be a top priority of the European Commission because it will leverage decisive opportunities to create more green jobs, and spur regenerative growth, inclusion and sustainable development (ecological, economic, social) in both urban centres and rural areas.

Nature-based materials, and especially wood-based products, offer green building solutions that are renewable, recyclable and have far better environmental performance (lower carbon footprint) during their life cycle than other conventional materials. Prefabricated solutions using wood also offer



European Wood Policy Platform | Policy Paper 2024

**A WOOD-BASED CIRCULAR BIOECONOMY FOR A SUSTAINABLE EUROPE**

GREEN CONSTRUCTION AND INNOVATIVE WOOD SOLUTIONS

# EU policies affecting sustainable building

- **European Green Deal (2020)**
- New European Bauhaus (NEB, 2020)
- Renovation wave (2020)
- Circular Economy Action Plan (CEAP, 2020)
- Carbon Removals Certification Regulation (CRC, 2022)
- EU Taxonomy Environmental Delegated Act (Taxonomy, 2023)
- Energy Performance of Buildings Directive (EPBD, 2018/2023)
- Construction Products Regulation (CPR revision, 2024)
- EU Carbon Removals and Carbon Farming Certification Regulation (CRCF, 2024)
- ...

<b>The first climate-neutral continent</b> by 2050	<b>At least 55% less</b> net greenhouse gas emissions by 2030, compared to 1990 levels	<b>3 billion</b> additional trees to be planted in the EU by 2030
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New European Bauhaus  
beautiful | sustainable | together



# National and regional initiatives promoting wood construction

- **Slovenia:** Green Public Procurement GPP requires 30% wood-based construction materials in public buildings
- **Austria:** CO<sub>2</sub> bonus of 1€ per kg of wood used in buildings
- **Styria AT:** committed to using 20% timber construction in social housing
- **Galicia ES:** 20% of regional government buildings to use wood in their structure
- **Estonia:** renovation using prefabricated wooden elements are eligible for a 50% subsidy
- **Amsterdam NL:** goal of 20% of new residential builds made from wood by 2025
- ...



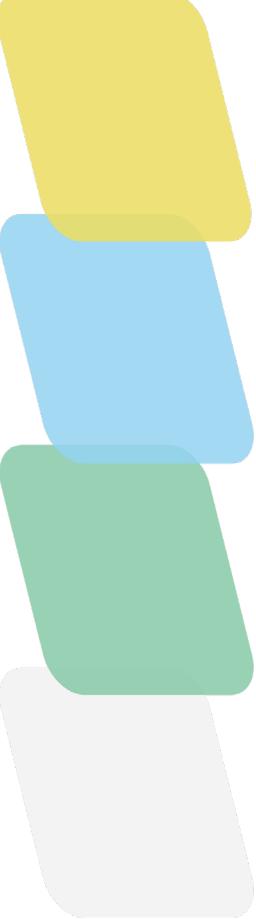
The New European Bauhaus Academy #NEBA is a flagship initiative of the European Commission on skills for sustainable construction.

NEBA aims **unlocking the potential of the construction ecosystem in decarbonising & transforming the built environment.**



# Creation of a NEB Academy Hub in Ukraine





**Focus on quality and build alliances of different actors on regional, national and international level**

**Advocate a compelling narrative**

**Use powerful methods and tools such as co-creation**

**Access funding for research, education and building projects**

**→ Funding providers want long term low risk and high impact, so they go for anything that is high QUALITY and SUSTAINABLE**



**All hands on deck**