



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



New European Bauhaus:

Establishing a European Academy for skills in biobased materials and circular economy towards a sustainable construction sector

Uwe Kies - Secretary General, InnovaWood

RESILIENTWOOD conference, Zagreb, Croatia | 7 September 2023



The projects have received funding from the European Union's Horizon 2020 and Horizon Europe programmes | n° 862942, 101057473, 101083743

CSA project, 2022-2024

- funded by Digital Europe Programme grant no. 101083743
- Domain experts:
TU Delft, EAAE, ICF, IW

Open digital platform for NEB community

- Digital Toolkit
- Observatory
- eLearning courses



Cocreation actions

- Co-design workshops, webinars, events to engage NEB lighthouses, partners, supporters



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



CERN workshop, 27 Feb 2023 © ICF



**European Association for
Architectural Education**
Association Européenne pour
l'Enseignement de l'Architecture



New European Bauhaus

A co-creation movement for the EU Green Deal



“ We will kickstart a **European renovation wave** and make our Union a leader in the circular economy. But this is not just an environmental or economic project: it needs to be **a new cultural project** for Europe. [...] This is why we will set up a New European Bauhaus – a **co-creation space** where architects, artists, students, engineers, designers work together to make that happen. This is shaping the world we want to live in.”

Ursula von der Leyen
President of the European Commission
State of the Union Address, Brussels, 16 September 2020



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



New European Bauhaus

A call for bio-materials and nature-based solutions



“ We all know that today **building with timber could save up to 40% of carbon emissions in comparison to concrete.** By keeping the carbon inside the wood, one day timber could turn our homes and even **entire cities into carbon sinks.** ”

Ursula von der Leyen
President of the European Commission
Nordic Bauhaus conference, 24 November 2022

“ **Reforesting the planet, retimbering the cities:** timber construction can become a true silver bullet to fight climate change.”

Prof. John Schellnhuber
Director Emeritus of the Potsdam Institute for Climate Impact Research



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



New European Bauhaus

A co-creation movement for the EU Green Deal



beautiful | sustainable | together

- Lead by EC President's office, the JRC and the High-level Advisory Group
- NEB official partners: 600+ initiatives
- NEB Prize competitions & NEB Festivals
- Lighthouse demonstrator projects
- EC funding programmes linked to NEB
- *Guiding tool for investors (EIB)*
- *NEB Labelling Strategy for buildings*
- *NEB Academy*



<https://new-european-bauhaus.europa.eu>



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



NEB Academy

Skills for Sustainable Construction

Flagship initiative of European Year of Skills 2023

Main goal

- Accelerate up-skilling and re-skilling in the construction ecosystem (SMEs & mid-caps)
- Foster systemic thinking in sustainable construction

Close knowledge gaps with a focus on:

- Biobased materials
- Digital technologies
- Circularity in construction



[EC 2023. NEB Academy](#)



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



NEB Academy

Skills for Sustainable Construction

Encourage creation of NEB Academy Pioneer Hubs

- Self-commitment of NEB Partners

Create a Network of NEB Academy Hubs

- Selection based on objective criteria
- Two open calls: [CBE JU](#) & [LIFE](#)

Set up a NEB Academy collaborative platform

- Online space for training materials & courses, co-designed with digiNEB.eu



[EC 2023. NEB Academy](#)



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



NEB Academy

A European Community of Practice for Skills

Development steps

1. Needs assessment of **skills gaps** and **target groups**
2. Mapping of **training providers** and **materials**
3. Check and selection of **courses** and **contents**
4. **Translation**, organize access
5. **Pilot trainings**, mobility, co-creation actions

Setup of European NEBA Network

1. **Governance** model
2. **Criteria** for quality control, label/seal of excellence
3. Onboarding of **NEB Hubs**
4. **Online portal** as single-entry point



NEB Academy

Matching training offers with skills needs of target groups



Construction workers

- Biobased materials: handling, installation, maintenance
- Quality & safety assurance



Architects, civil engineers

- Building products/systems
- Prefabrication systems
- Renovation solutions



Public planner

- Types of building systems, processes, costs, benefits
- Guidelines and specifications for public procurement



Financial actors

- Timber projects financing
- Risks, investment options
- Carbon accounting



NEB Academy

Training formats for life-long learning

Online, offline & hybrid formats in VET & HE

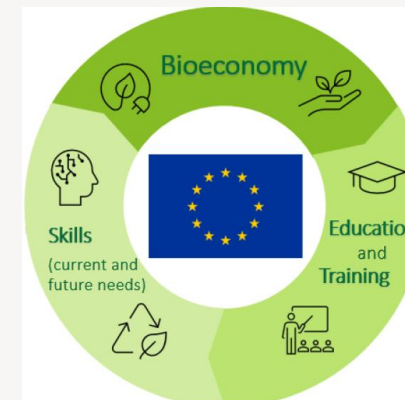
- Curriculum evolution & complementarities
- Micro-credentials, targeted up-/re-skilling tracks
- Recognition of practitioner skills (e.g. professional bachelor)
- Train-the-trainers, capacity building
- Summer schools, training camps
- Mobility, study visits, staff exchange
- Co-creation labs, citizen science
- Competitions, hackathons
- Fairs, conferences, events
- Edutainment



Future bioeconomy

New skills needed for the big transformation

Deloitte, empirica & FGB study, 2022 (adapted)



Core education topics	Transversal skills	Entrepreneurship
<ul style="list-style-type: none">• Sustainability• Circular Economy• Systems thinking• Ethical & legal matters 	<ul style="list-style-type: none">• Communication, collaboration, problem solving• Creativity, codesign• Data analysis/ literacy, IT 	<ul style="list-style-type: none">• Business models, financial instruments• 'Intrapreneurship'• Digital economy 

Deloitte, empirica, FGB, 2022. Promoting education, training and skills across the bioeconomy. Study on behalf of the European Commission, DG RTD. Final report: Publications Office EU. [Link](#)

Future bioeconomy

New skills in Biobased Innovation

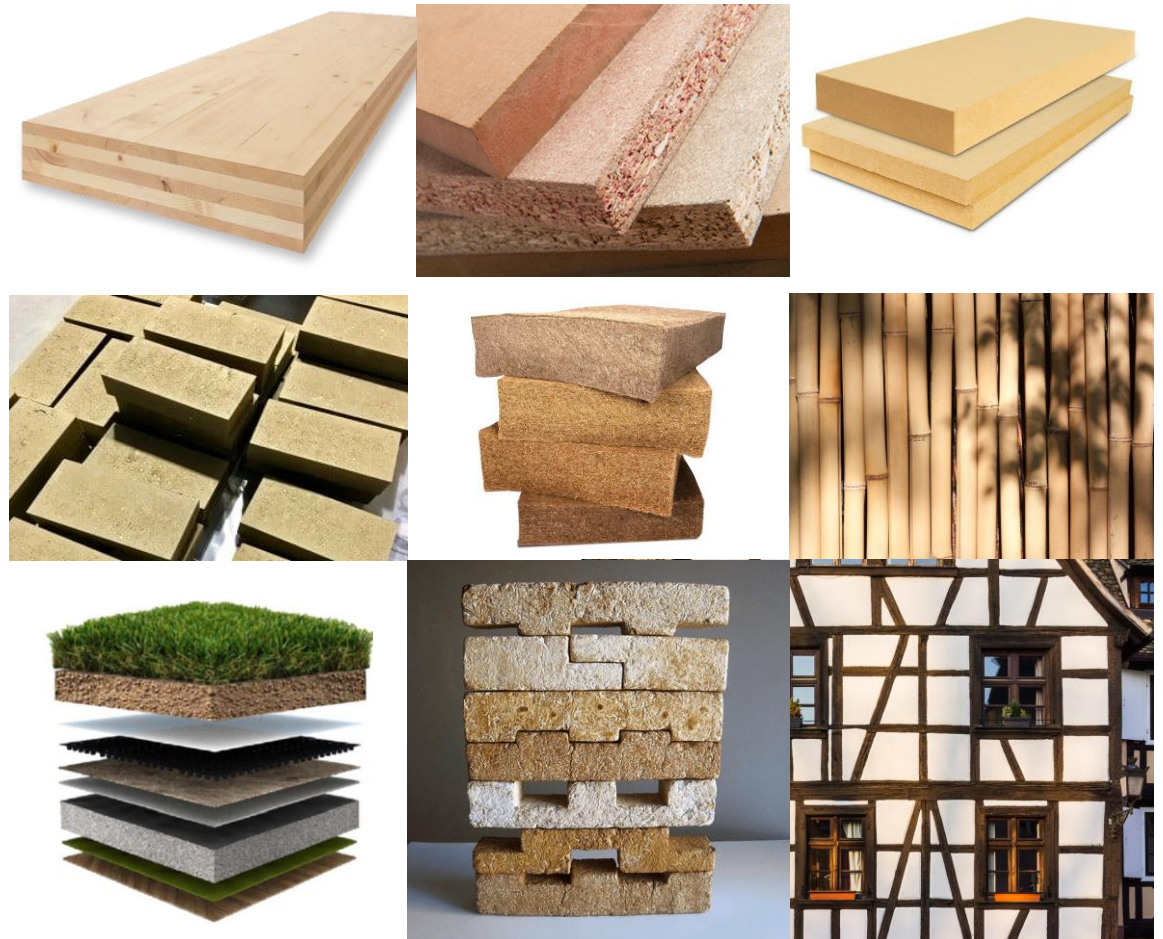
i) Material science & knowhow

- Wood (species, residues, recovered, ...)
- Straw, hemp, bamboo, cork, clay, ...
- Mycelium, enzymes
- Bio-polymers

ii) Biobased technologies

- Carbon-storing products
- Bio processes, low embodied energy
- Synergistic production & use
- Recovery of traditional techniques

A range of biogenic building materials



Picture credits: energie-experten.org, baunetzwissen.de, happho.com, elemental.green, shutterstock.com, istockphoto.com, Le Trung et al. 2018

Future bioeconomy

New skills in Biobased Innovation

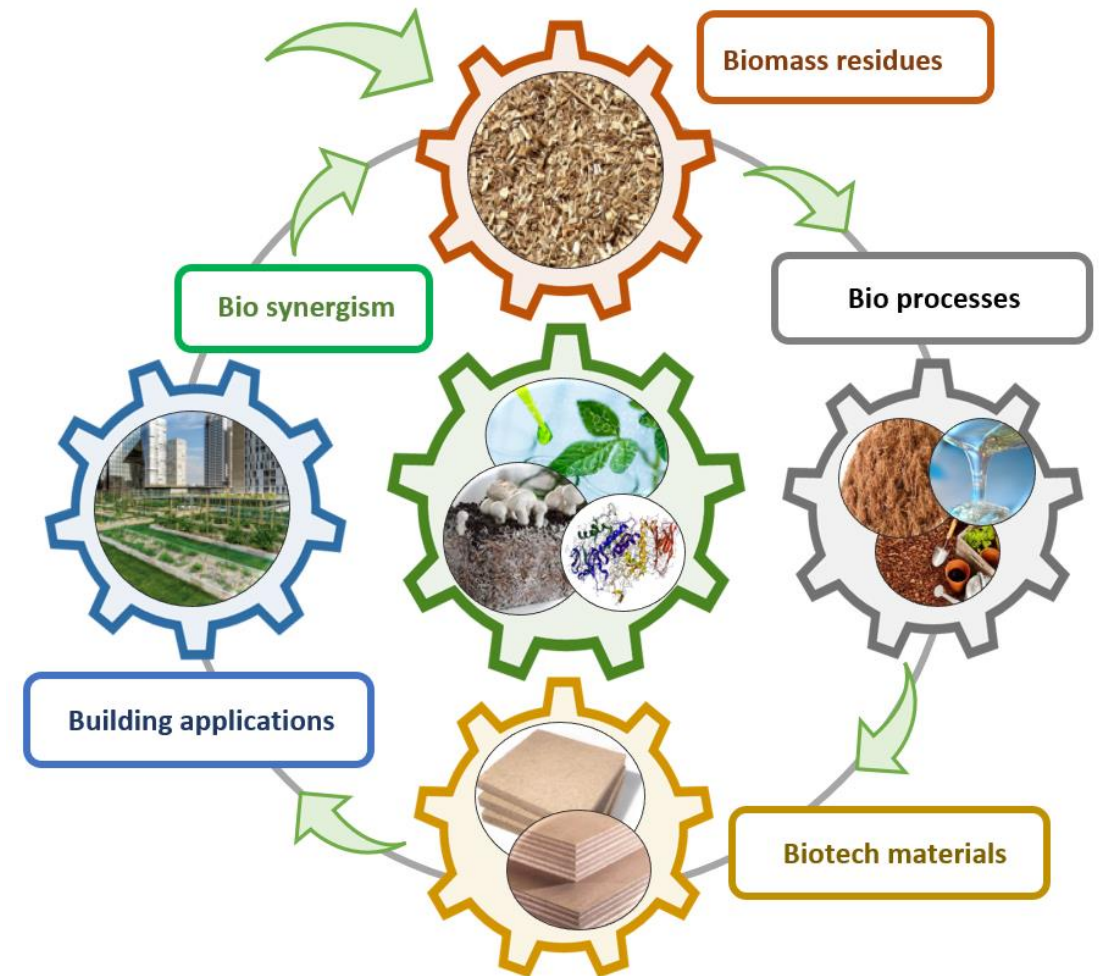
iii) Innovative applications & products

- Insulation, hybrid materials
- Renovation systems/kits
- Green roofs / facades, living surfaces
- Biofilters, fertilizers, biorefinery products
- Bioinspiration, biomimicry

iv) Testing & upscaling

- Demonstrators
- Living Labs / co-creation with producers & end-users

Biomaterials Kit and Co-creation Labs for a Circular Bioeconomy



© Tecnalia 2023. INGUMA project

The formula for the **Timber (r)evolution ?**

Forests

+ **Timber engineering**

+ **Buildings**

+ **Skills & Education,**
Digitalisation, Co-creation





Coming soon... The NEB Academy

- Forests**
- + Timber engineering**
- + Buildings**
- + Skills & Education,
Digitalisation, Co-creation**



wood4bauhaus

Wood Sector Alliance for the New European Bauhaus



"Reforesting the Planet, Retimbering the City!"

wood4bauhaus.eu | uwe.kies@innovawood.eu



The projects have received funding from the European Union's Horizon 2020 and Horizon Europe programmes | n° 862942, 101057473, 101083743