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Wood4Bauhaus contribution to Call for Evidence on the New European Bauhaus: achievements and future developments

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The **Wood4Bauhaus Alliance** sees the **New European Bauhaus (NEB)** as a powerful community to promote bio-based innovation, resource efficiency, and circular design, turning EU climate ambition into tangible change in how we build, renovate, and live. Wood-based materials are sustainable, carbon-storing, and circular materials, perfectly positioned to deliver on the NEB mission, providing both environmental, economic and social value, through affordable and healthy homes.

The future evolution of the NEB should therefore consolidate its governance structure and community, secure stable funding, and enhance coherent policy coordination with key initiatives such as the **Circular Economy Act**, the **European Affordable Housing Plan** and the **Bioeconomy Strategy**. By embedding the NEB as a driving bottom-up facilitator for co-creation and co-design across these instruments, the Commission can ensure its long-term success as the creative and operational heart of Europe's sustainable, competitive transformation.

Wood-based solutions and bio-based materials embody the NEB principles of sustainability, aesthetics, and inclusion by translating them into climate-positive, circular, and human-centred design solutions that are essential to guide and lead Europe's green transformation and make the NEB vision tangible: sustainable, affordable, and beautiful living spaces for everyone.

In this respect, the Wood4Bauhaus Alliance reaffirms the central role of the wood sector in driving Europe's transformation: With 17.5 million jobs linked to regional value chains, the wood sector is vital for both rural and urban economies and boosts a strong innovation ecosystem that drives competitiveness and higher productivity in construction, leading the digital green transition in the building sector.

Timber buildings are also showcases of long-term carbon sinks that boost health and wellbeing and are thus key to providing better housing and simultaneously cutting carbon emissions. The European wood sector is a global leader in resilient growth of innovative SMEs from domestic forest resources. It can scale up significantly through coherent policy support to deliver on the transition goals for the built environment.

Wood4Bauhaus proposes the following key recommendations for the future development of the NEB:

1. Harnessing bio-based materials

Wood-based materials embody the NEB's spirit of "beautiful, sustainable, together", combining design versatility with exceptional climate performance. As renewable, circular and carbon-storing materials, they offer a triple climate benefit storing biogenic carbon in long-lived products, substituting energy-intensive materials like steel and concrete, and enabling multiple reuse and recycling cycles through cascading use.

To fully unlock this potential, the NEB should encourage systematic integration of wood-based materials into both new construction and renovation projects. This can be achieved through design guidelines, model projects, and demonstration programmes showcasing low-carbon, biogenic materials. The NEB shall establish the right framework to expand the material use of wood in construction and other wood uses and products, prioritising durable, high-value applications and reserving energy recovery for end of life, consistent with cascading principle.

Moreover, the NEB's aesthetic and cultural dimension should highlight the natural warmth, sensory comfort and health benefits of wood, illustrating how sustainable materials can enhance both environmental performance and quality of life creating spaces that are liveable, healthy, inspiring, and reconnecting human with nature.

In this context, dedicated research to recover traditional knowledge and skills in wood craftsmanship is needed, which are key for valorising cultural heritage buildings, for inspiring innovations that can bridge past and present technologies, and for engaging the cultural and creative sector.

2. Industrialised & off-site construction

Industrialised and off-site construction represents one of the fastest, resource efficient and cost-effective ways to make housing affordable, low-carbon, and circular. Wood-based products are essential enablers of this shift, offering precision, lightweight performance, and modularity for scalable building systems.

The NEB should promote prefabricated, modular, and hybrid construction methods based on renewable materials to accelerate both new builds and renovation. This approach can drastically reduce waste, shorten construction times, improves energy efficiency, and drives competitiveness of sustainable construction.

To support the wider adoption of modern, efficient methods of construction, the NEB should promote innovation, scaling, and industrialisation, especially as many companies in this field are SMEs and start-ups.

It should also support digitalisation tools such as Building Information Modelling and Digital Product Passports and novel AI applications, which improve design precision, productivity and efficiency, facilitate traceability, and make future disassembly and circular use easier.

Public authorities and private developers should be encouraged to adopt industrialised construction models under NEB pilot projects, demonstrating how bio-based materials can achieve high architectural standards, lower lifecycle emissions, and cost-effective scalability.

3. Circular economy & recycling

The NEB can only succeed if circularity becomes its structural foundation. For the wood-based sector, this means keeping carbon captured in materials for as long as possible through reuse, recycling, and substitution.

To achieve this, the EU should support the creation of dedicated high-quality wood waste collection systems across Member States, harmonising classification and acceptance standards for recycled wood. The NEB should encourage cities and regions to integrate material recovery systems into building renovation programmes, ensuring that wood from demolition or refurbishment is collected, sorted, and recycled rather than incinerated.

Investments in advanced sorting technologies, pre-processing facilities, and AI-assisted waste separation are essential to secure a reliable supply of clean secondary wood materials and strengthen Europe's circular bioeconomy. At the same time, research and innovation efforts should focus on multi-cycle reuse and design-for-disassembly, supported through Horizon Europe and the Circular Bio-based Europe Joint Undertaking (CBE-JU), to accelerate the creation of circular wood value chains.

Special attention should be given to design for disassembly and circular business models, which are key to creating a more sustainable and adaptable built environment.

4. Public procurement & regulatory alignment

Public procurement can be a powerful driver of the NEB vision. By integrating low-carbon and carbon-storing criteria into procurement rules, public authorities can create strong demand signals for bio-based materials and accelerate their market uptake. Innovative approaches for public procurement should be tested and shared.

Wood4Bauhaus encourages the NEB framework to align closely with the Green Public Procurement criteria, ensuring that sustainability assessments cover life-cycle carbon (both operational and embodied) and recognise biogenic carbon storage in wood products.

The NEB should support the harmonisation of building codes and fire safety standards across Member States to remove unjustified barriers for multi-storey timber buildings.

Standardisation efforts need to be enhanced to broaden the spectrum of underused forest biomass for increased use in engineered wood products, supported by research and innovation such as wood grading, testing, product and standards development. This is necessary in view of unlocking the full potential of underused forest biomass (e.g. salvage timber, hardwoods, forest residues) for more higher value added products, which will benefit forest adaptation, resilience and biodiversity through sustainable forest management and enhanced value chains.

The alignment of the NEB with the **Construction Products Regulation** and the **Energy Performance of Buildings Directive** is also essential. Harmonised Environmental

Product Declarations and consistent LCA methodologies across these frameworks will ensure fair recognition of the environmental benefits of wood.

5. Skills & workforce development

The NEB's goals cannot be achieved without a skilled workforce capable of implementing them. The transition to bio-based and industrialised construction requires new skills and competencies in digital design, wood engineering, circular renovation, sustainable architecture, and citizens engagement, among others.

Wood4Bauhaus strongly supports the NEB Academy's expansion as a main platform for knowledge transfer and upskilling. The NEB Academy must work closely with the Vocational Education and Training, Higher Education and Life-Long-Learning ecosystem to integrate bio-based circular construction curricula, fostering new career paths for designers, builders, engineers and workers. Craftsmanship, traditional knowledge and skills must be preserved and revalorised.

Investment in regional training hubs and Living Labs serving as innovation hubs and testbeds for codesign by researchers and industry, particularly in rural and transition regions where wood industries are major employers, will ensure that the NEB supports local economies and strengthens Europe's industrial resilience.

6. Community & inclusiveness

The NEB connects buildings with people and places. Wood4Bauhaus affirms that the NEB must remain deeply anchored in local communities, ensuring that sustainability is not perceived as elitist but accessible and inclusive.

The use of prefabricated wooden elements enables high-quality, affordable housing that can be deployed quickly to address social needs, from student residences to senior homes and emergency shelters, from single family homes to multistorey urban buildings and entire neighbourhood projects. Timber solutions have special strengths in renovation (such as retrofitting, densification, restoring cultural heritage). Such approaches make sustainability tangible and inclusive, directly improving people's lives.

Moreover, the NEB should foster inclusive co-creation processes, where citizens, architects, and local authorities develop community-led projects that reflect both

cultural identity and environmental responsibility. Adopting citizen science approaches to enhance excellence of research and sharing best practices across NEB pilot projects will accelerate replication and ensure equitable access to sustainable living across Europe.

7. Research, innovation & monitoring

Sustained innovation is the backbone of the NEB. Wood4Bauhaus calls for stronger EU support for research, demonstration, and industrial deployment of circular bio-based materials and systems. Programmes such as Horizon Europe and the CBE JU should prioritise R&I in circular design, cascading use, and carbon storage quantification aligned with co-creation and citizens involvement (e.g. building inhabitants, diverse end user groups, stakeholders).

A robust monitoring framework for buildings as a carbon sink should track both environmental and social outcomes, ensuring transparency and accountability. Indicators could include embodied carbon reduction, resource circularity, affordability, and well-being. Finally, the establishment of a carbon credit mechanism under the **Carbon Removal and Carbon Farming** framework could reward the long-term carbon storage in harvested wood products, creating financial incentives for sustainable forestry and circular manufacturing.

R&I programmes and calls addressing wood innovation should be well coordinated and aligned among NEB and the relevant Horizon partnerships, notably **Built4People** and **Forests and Forestry** (under preparation).

8. Policy coherence with housing initiatives

To maximise its impact, the NEB must be closely coordinated with the **European Affordable Housing Plan** and the **European Strategy for Housing Construction**, ensuring coherence between sustainability, affordability, and design quality.

The use of bio-based materials, particularly in conjunction with industrialised construction, can facilitate this coherence. It is therefore necessary to fully integrate bio-based materials into all NEB-related financing and innovation instruments (including Horizon Europe, InvestEU, LIFE, and the Cohesion and Regional Funds). Supporting these materials across the funding landscape will help lower construction costs over time, reduce carbon emissions, and promote healthier living

environments. Dedicated funding streams and clear eligibility criteria can accelerate their use in affordable, sustainable housing solutions.

Joint implementation across the relevant Directorates General, including DG ENV, DG GROW, DG ENER and DG REGIO would help align funding, standards, and data frameworks ensuring that the NEB becomes a central pillar of Europe's industrial, environmental, and social transition.

9. Conclusion

Wood4Bauhaus is convinced that the NEB has the potential to transform how Europe builds, renovates, and lives bridging climate ambition with human creativity and comfort. By embracing bio-based and circular materials, supporting industrialised construction, and strengthening skills and local engagement, the NEB can demonstrate how Europe's Green Deal becomes tangible for people in everyday life.

Wood-based materials provide practical, scalable solutions to achieve this vision. Wood4Bauhaus therefore urges the European Commission to anchor circularity, resource efficiency, cascading use, carbon storage, and inclusiveness at the core of the NEB's next phase turning the movement into a long-term framework for sustainable prosperity and cultural renewal across Europe.

The Wood4Bauhaus Alliance

Wood4Bauhaus Alliance represents the European industry, research and innovation ecosystem around wood-based materials and engineered products for construction. The Alliance's main objective is to shape a better and sustainable future with beautiful, healthy and inclusive living, working, and learning spaces as part of a sustainable, low carbon-built environment. Our platform fosters an open, cross-disciplinary dialogue with all interested stakeholders and helps share good practices related to the Circular Economy and Green Buildings. Our goal is to inspire as many actors as possible to co-create contributions to the **New European Bauhaus (NEB)** from European to regional and local level, all in the common interest to advance and exploit as much as possible the potential of nature-based materials, innovative building systems and digital solutions to mitigate climate harm and foster well-being of European citizens. The Alliance will therefore:

- Encourage research and innovation for novel and innovative uses of wood in the built environment,
- Foster new collaborations and co-creation between different stakeholders across disciplines, sectors, and society, and
- Facilitate knowledge sharing and skills development especially towards future generations.

The Wood4Bauhaus Alliance comprises the following partners:

InnovaWood is the European network for wood science, research, innovation and education with more than 60 member organisations in 28 countries, including RTOs, universities, VET centres and cluster organisations, representing a large community invested in EU research around sustainable materials.

The **European Confederation of Woodworking Industries (CEI-Bois)** is an umbrella organisation of 21 European and national organisations from 15 countries backing the interests of the entire wood sector.

The **European Panel Federation (EPF)** represents 100,000 direct jobs and counts more than 5,000 wood-based panel manufacturing and furniture companies in 25 countries.

The **European Organisation of the Sawmill Industry (EOS)** represents 35,000 sawmills in 12 countries.

The **European Federation of Building and Woodworkers (EFBWW)** is the European Trade Union Federation grouping 76 national free trade unions from 34 countries with members in the building, building materials, woodworking, forestry and allied industries and trades.

InnoRenew CoE is an interdisciplinary institute at the University of Primorska in Slovenia combining material science, biology, engineering, ICT, human health, design, and social sciences to drive sustainable innovation of the wood and constructions sectors.



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