Policy Brief
November 2025

Wood for Europe's future: FP10 as the engine of decarbonisation and competitiveness

To harness the full strategic potential of Europe's forests and wood resources for the green, digital, and circular transitions, FP10 **should embed wood science, technology, and innovation across all relevant pillars**. **Coordinated investment** in research excellence, industrial innovation, and skills development, prioritising the needs of SMEs, will strengthen resilience, accelerate decarbonisation, strengthen existing markets and unlock new markets. By **integrating wood research infrastructures** into European networks, fostering cross-sector collaboration, and aligning with **New European Bauhaus (NEB)** principles as well as EU Missions, Europe can position its forest-based industries as global leaders in sustainability and competitiveness. **This is not only an environmental imperative but a socio-economic opportunity that demands decisive policy support and funding. Europe must act now.**

WoodPoP call for actions

WoodPoP calls for urgent, coordinated action under FP10 to unlock the full potential of Europe's forestry and **wood sector, a cornerstone for resilience, growth, climate neutrality and decarbonisation, circularity, and resilience**. Despite being a vast, nationally available, reliable, renewable bioresource, it remains underused in terms of value added.
Six priority challenges demand attention: **Economic growth, climate adaptation**, **decarbonisation**, **digital traceability**, **inclusive governance**, and **skills development**.

FP10 must drive research and innovation across its four pillars **to scale low-carbon construction, develop circular wood systems, advance climate-smart and sustainable forestry, and deploy digital solutions for transparency**. Europe cannot afford to miss this opportunity. FP10 must lead the way to enable a secure and scaling wood-based value chains as engines of competitiveness, social resilience and climate action.

Rationale

Wood is one of Europe's most strategic renewable resources, vital for regenerative growth and decarbonisation through carbon storage in solid wood, wood-based products, and biocomposites. The European wood sector contributes with € 1.114 billion significantly to EU's GDP and employs about 17.5 million people (Econmove, 2023, Basis economic data to the value chains of Forestry and Wood Industry in Europe). Fully aligned with the **'One Health'** approach, the wood sector supports **environmental**, **social**, and **economic sustainability**, yet it remains underexploited in EU industry and climate strategies. This policy brief translates the **WoodPoP Policy Paper** into actionable recommendations for FP10 to accelerate research and innovation, strengthen the circular bioeconomy, and position wood at the core of resilient value chains and low-carbon construction:

Key recommendations for Horizon Europe 2028 – 2034

Strategic decisions are needed to integrate wood's renewable and regenerative potential into the Horizon Europe programme 2028–2034. These decisions should encompass **fundamental, applied, demonstrative, innovative and educational** approaches, and emphasise their synergies. **Wood science, technology, and engineering**, as part of the wider bioeconomy domain, with links to sustainable forestry and related value chains, must be **explicitly included** in the new FP10. It is essential that breakthrough knowledge, innovation, and deployment are carried out in close collaboration with society.

Specific recommendation for Horizon Europe 2028 – 2034

Pillar I 'Excellent Science'

- To drive breakthrough research, the **field of wood science, technology and engineering** must be **explicitly integrated** into the remit of the **European Research Council (ERC)**. This will ensure that the strategic potential of wood is fully recognised and integrated into future innovations.

Pillar II 'Competitiveness and Society'

- The **socio-economic and cultural role of the wood sect**or, and its contribution to decarbonisation through advances in forest and wood science, should be emphasised. Cross-sectoral innovation and the circular bioeconomy, including woodworking industries, are key to creating sustainable, place-based, human-centric solutions for **Industry 5.0** and **Society 5.0.**
- Priorities include enhancing **forest resilience and species diversification**, as well as strengthening the **link between forest management and woodworking industries** to promote efficient, integrated value chains and sustainable regional development.
- The **NEB approach** should **guide stakeholder engagement and education** in order to embed **innovations and skills in the circular bioeconomy**, and future funding must modernise higher education and vocational training to facilitate the green, digital and social transition.

Pillar III 'Innovation'

- Position the wood sector as **a catalyst for Europe's green and digital transition** by building on its sustainable forest resources and promoting the cascading use of local and undervalued wood. This can be achieved by funding innovation in renewable materials through industry–academia–society co-creation approaches.
- The **European Innovation Council (EIC)** and the **Circular Biobased Europe (CBE)** should **establish dedicated pathways** for wood-based materials and solutions to enable high-risk, high-reward projects across value chains.
- Priorities include **improving the quality of standing wood, encouraging cross-sector collaboration** (in areas such as construction, mobility, textiles, health, digital technology and green chemistry), **aligning with Society/Industry 5.0** and **supporting innovation**.
- Key fields include **prefabrication, automation, wood quality processing, novel engineered and circular wood-based products, underused and new wood resources, circular/cascading use, carbon financing and skills development** to advance the field (education/skills).

Pillar IV 'European Research Area'

- Pillar IV should leverage the wood **sector as a key contributor to research excellence and societal impact**.
- **The European Research Area (ERA) should support integrating wood-related infrastructures into EU-wide networks**, creating alliances and collaborative platforms that link researchers, industry, and society and promoting excellence in wood science aligned with competitiveness, sustainability, circular bioeconomy, and climate neutrality.
- **Existing facilities** should be **mobilised to boost transdisciplinary research** across sectors such as construction, health, mobility, security, green chemistry and digital technologies.

Pathways to foster opportunities for a resilient and competitive Europe through wood-based materials within the relevant FP10 Pillars* (extract)

Challenges	Opportunities	Relevant FP10 Pillars
Resilience to multiple pressures: Climate change, pests, and disturbances threaten forest health, reducing wood availability and quality.	Strengthen resilience through **digital tools**, **close-to-nature management**, and **Assisted Evolution Technologies**. Advance adaptive species and monitoring research including greater use of locally adapted and new species to secure sustainable wood supply.	**I:** forest adaptation and genetics. **II:** sustainable resource use **IV:** shared monitoring infrastructures.
Decarbonisation and material efficiency: The sector's climate-neutral potential is undercapitalised.	Scale up **wood construction**, **prefabrication**, and **rapid-build systems** for affordable, low-carbon housing. Boost **secure local wood value chains**, **circular design**, and **digital value-chain integration,** Digital twins of wood products, process monitoring, new approaches to strength grading (trained AI models), AI-based machine control, autonomous timber transport to/in/from the sawmill; Bio-Energy Carbon Capture and Storage (BECCS**)**.	**II:** green industrial transition **III:** bioeconomy, circular, low-carbon deployment; industrial scale-up with support of AI. **IV:** coordinated decarbonisation agendas.
Market volatility and wood material demand: Import reliance weakens SME resilience.	Diversify **wood species** and wood based **products**, empower SMEs through innovation support, and expand use of **hardwoods** and **climate-adapted species to enhance regional resilience and reduce import dependency** strengthening regional value chains. Wood from Tree crops and Agroforestry	**I:** material research. **II:** SME capacity. **III:** optimization in wood selection and processing, market uptake.
Fragmented wood supply chains and small ownerships.	Develop **cooperative models**, **clusters**, and **public–private partnerships** to consolidate ownership, share knowledge, and build efficient, resilient value chains.	**II:** organizational reform. **III** integrated industrial ecosystems. **IV:** regional–EU coordination.
Transparency and legality: Weak traceability and fragmented data reduce market trust.	Deploy **digital traceability** (blockchain, AI, remote sensing) to verify origin and sustainability. Ensure European interoperable certification and market data systems.	**I:** enabling technologies. **III:** industrial scale-up. **IV:** harmonised data standards.
Integrating the New European Bauhaus (NEB): Limited cross-disciplinary and social uptake.	Apply NEB principles to connect design, ecology, and technology. Promote **affordable, fast-build wood housing and citizen-led innovation** drawing on the full forest–wood value chain and interdisciplinary collaboration between foresters, engineers, architects, and social scientists combining aesthetics, sustainability, and inclusion, while supporting multifunctional forests and ecosystem services.	**I:** citizen science **II:** social and cultural innovation. **IV:** transdisciplinary collaboration. **V**.: Communication plan on Forestry and sustainable forest management

*Extract: A comprehensive version of this overview table will soon be available

Disclaimer

The views expressed in this policy brief reflect those of WoodPoP's Technical Working Group 'Innovation & Research' and do not in any way represent the opinions of the Austrian Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management and/or of the Swiss Federal Office for the Environment.

Acknowledgements

This policy brief presents the outputs of the Task Force 'Helping to shape future research topics' of the Technical Working Group 'Innovation & Research' of the European Wood Policy Platform (WoodPoP).

About WoodPoP

The European Wood Policy Platform (WoodPoP) is a collaborative initiative that brings together stakeholders from across the wood value chain to support the development of sustainable, evidence-based policies in Europe. WoodPoP aims to harness the full potential of wood in building a greener, fairer, and more innovative future for Europe.

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Office for the Environment FOEN

Forest Fund
Republic of Austria
An initiative by the Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management
Republic of Austria

This policy brief was produced with financial support of the Swiss **Federal Office for the Environment** (FOEN) and the **Austrian Forest Fund**, an initiative of the Austrian Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management (BMLUK).