WoodCircus White Paper 2040

# European woodworking industries are the green engine of sustainable growth

Decarbonising the economy requires a major shift towards circular and carbon neutral production processes, products, construction, and material use. Simply put, this cannot be accomplished without increased, smart, and sustainable use of natural materials like wood. **European woodworking industries are pioneers of circularity and carbon neutrality.** Circular practices are applied throughout entire wood-based value chains via processing and material efficiency, circular design, material cascading, and well-implemented reuse and recycling strategies.

Despite the strengths of the woodworking industries, the construction sector in Europe generates approximately 70,5 million tons of wood waste annually[1], and only around one third is currently reused or recycled. Construction waste and other wood sidestreams can be redirected towards innovative and smart applications to fully embed the woodworking industries in the circular bioeconomy. The transition towards circularity should be supported by new policy framework conditions, regulations, investments, and incentives that drive

practical business and operational practices, partnerships, and co-creation ecosystems throughout all wood-based value chains.

## The WoodCircus White Paper 2040 advocates for the role of woodworking industries in the sustainable growth of Europe.

The woodworking industries are adaptable and ready for growth. This White Paper calls for targeted actions engaging all stakeholders to accelerate the transition of the woodworking industries and the entire European economy towards decarbonisation, inclusivity, and sustainable success.

1 WRING: Wood working industry recycling.
EIP Raw Materials Commitment, 2016.
https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/wood-working-industry-recycling

## WoodCircus Maxims

The six WoodCircus maxims and policy recommendations are the foundation of the White Paper 2040. They advocate for the circular transition of European woodworking industries and are based on information collected from four European macro-regions: Nordic-Baltic, Central-Western, Southern-Mediterranean, and Central-Eastern Europe. Implementing the vision and recommendations of each maxim must consider each macro-region's unique framework conditions, strength, and potential, calling for seamless collaboration between stakeholders at local, national, and European levels.

*Wood is the most important natural resource, prevalent in our daily lives and in the circular bioeconomy. Wood is widely used in construction, furniture, textiles, fuels, fine chemicals, pharmaceuticals and many more applications. Contributing to the goals set by the European Green Deal, Fit for 55, the New Circular Economy Action Plan, the Biodiversity Strategy, the Forest Strategy, the New European Bauhaus Initiative and the United Nation's Sustainable Development Goals 2030, the smart use of wood becomes the driving motor of the European woodworking industries' competitiveness and the well-being of the society.*

*Alnus glutinosa*

*Picea abies*

*Fagus sylvatica*

*Betula pendula*

*Quercus robur*

*Pinus sylvestris*

*Acer pseudoplatanus*

# WoodCircus Maxims

## 1
## Maxim One

**Building and living with wood is one of the greatest opportunities for Europe to become the global leader in sustainable, inclusive, and competitive growth.** With the urgent need to decarbonise and drive the European economy's post-COVID green recovery, the construction sector must transform to maximise the use of wood in renovation, new construction, infrastructure, and the whole built environment. The woodworking industries provide a unique opportunity to develop a new vision for buildings in Europe that is attractive, inclusive, affordable, and sustainable.

## Recommendation

The Renovation Wave and New European Bauhaus are at the forefront of guiding this transition towards a carbon neutral economy and should prioritise the use of nature-based materials. Green public procurement procedures can accelerate this transition by recognising, requiring, and rewarding the carbon storage and substitution value of wood and wood-based products.

# 2
# Maxim Two

**The woodworking industries are already highly efficient.** High resource efficiency in the woodworking sector results in little to no waste produced during production. Nearly 100% of woodworking sidestreams can be used in horizontal production or converted to energy. This can be achieved within individual companies or through markets for secondary streams. No other sector can utilise its raw materials with as little generation of waste as the woodworking sector. Efficiency in the woodworking industries can go beyond effective resource use, for example through cascading or offsite manufacturing, with targeted support and development. Well-designed reusable, recoverable, or recyclable products extend this energy and carbon efficiency, reducing the environmental impact of production, use, reuse, and recycling to unprecedented levels.

## Recommendation

Policies and supportive regulations should equally endorse viable options to maximise resource efficiency by reuse, recycling, and/or recovery. This will trigger new innovations and business models and provide new avenues for growth in the sector as well as enhanced sustainability by adding value to material cycles. These actions should be supported with ambitious development and investment programs at European, national, and regional levels.

# 3
# Maxim Three

**The European woodworking industries add value through circular business operations, models, and concepts.** Creating new value chains and ecosystems for efficient use of wood and wood-based products to supplement existing value chains that build on co-creation, new business concepts, and shared business models will create new jobs, drive growth, and enhance competitiveness throughout the European woodworking industries.

## Recommendation

To unlock the full potential of the circular economy, policy makers at local, national, and European levels should develop favourable policy framework conditions, regulations, investments, and incentives. These tools should encourage the reuse and recycling of woody biomass, enhance waste wood collection and sorting from construction & demolition sites, and improve post-consumer wood collection. Equally, these actions should support entrepreneurship and investment in new businesses, business models, start-ups, and risk financing, including cross-border and transnational collaboration, industrial ecosystems, and networking. Multidisciplinary cooperation should be prioritised to bring the benefits and knowledge of external stakeholders into the woodworking industries.

# 4
# Maxim Four

**A growing and dynamic woodworking industry will attract skilled, creative personnel and continually evolve, facilitating life-long learning at all levels.**

Modernisation and the developing circular economy have created opportunities for employee profiles and career paths within the woodworking industries that will maintain and enlarge the existing knowledge base. Educating students and providing training or life-long learning for employees and entrepreneurs, at all levels along the value-chains, about the value of woodworking for future sustainability in combination with relevant technical and soft skills will add value to traditional knowledge and skills, attract entrepreneurship, and connect rural and urban development.

## Recommendation

Public and industrial education and training programmes should implement training, work programmes and higher education that support an influx of qualified and creative employees and entrepreneurs. New study and training programmes should be co-created with industry and business actors to ensure an appropriately broad array of topics are covered while ensuring the necessary basic information is included as well. In addition, co-funded promotional systems that leverage EC and sectoral resources to promote the sustainable use of wood and wood-based products, will help improve the perception of the wood sector, drive increased use of wood, and encourage potential employees and entrepreneurs to explore the field. In this way, wood sector employees can knowingly make an important contribution to landmark EU ambitions in the European Green Deal and other sustainable development strategies, thus playing a role in combatting today's global climate emergency.

# 5
# Maxim Five

**Multidisciplinary research, innovation and industrial transformation are key for the transition towards a carbon neutral economy.** Understanding needs, nurturing knowledge, boosting development, and adopting new solutions requires a well-structured foundation of support for researchers, businesses, and industry. Connecting a wide range of woodworking industry stakeholders to co-create the next generation of solutions is necessary to meet the ambitions of the Green Deal to decarbonise the European economy.

## Recommendation

Develop a research and innovation action plan dedicated to carbon-neutral living and building with wood and implement this plan in public funding programmes on the local, national, and European levels. Support the development of wood-based solutions within Horizon Europe, the New European Bauhaus, the Renovation Wave, and Fit-for-55 and facilitate the creation of a series of Joint Undertakings between the woodworking industries, the construction sector, as well as public and private stakeholders.

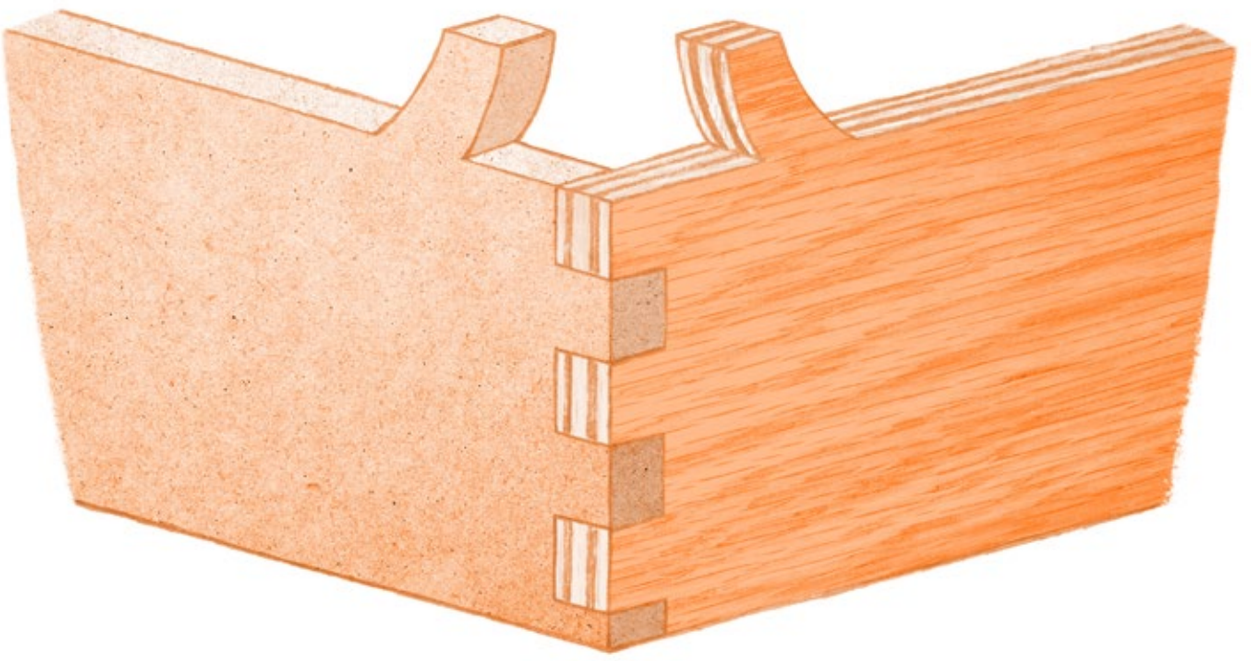
# 6
# Maxim Six

**The woodworking industries provide sustainable alternatives for nearly any product that fit the circular bioeconomy concept.**

The sector creates products for construction, furniture, packaging, leisure, wellbeing, and a myriad of other applications with highly efficient material use that are ready for reuse or recycling. The sector adds value at each stage of production in each life-cycle of the material. Increasing the pool of harvested wood products will extend and prolong carbon storage, thereby making an essential contribution to climate change mitigation.

## Recommendation

To achieve the carbon neutrality goals set by the Green Deal, policies, incentives, and regulations should recognise, support, and encourage the use of wood and wood-based products to decarbonise the European economy. Public-private collaboration at the local, national, and EU levels is necessary to find workable and acceptable solutions that realize the objectives set in the European Green Deal, Fit-for-55, Biodiversity Strategy, Forest Strategy, New Circular Economy Action Plan, New European Bauhaus initiative, and UN Sustainable Development Goals.



## Let’s unlock the potential for green growth and carbon neutrality together.

The transition towards the circular bioeconomy requires dedicated engagement from all stakeholders. With its six Maxims, WoodCircus calls on European leaders in industry, policy, and the community to make transformative change by developing, supporting, and implementing strong policies and practices that underpin the vital role of the woodworking industries in green growth and carbon neutrality.

*WoodCircus' main goal is to promote wood-based value chains as a key part of a circular bioeconomy in Europe. This goal is pursued by studying, assessing and highlighting efficiency of wood-based value chains in the woodworking industries and the construction sector. It incorporates the mobilisation and first transformation of wood, building and construction activities, production side streams, reuse and recycling aspects. Contributing to the development of sustainable societies, the transition and support of the woodworking industries will lead to more employment and well-being of the European citizens.*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Underpinning the vital role of the forest-based sector in the Circular Bio-Economy

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