

Austrian Wood Initiative

Creating a sustainable future with wood



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Vienna, 2022

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Creating a sustainable future with wood

The slogan “Creating a sustainable future with wood” is meant to draw attention to the important role that wood, a renewable and sustainable resource with immense value, plays in addressing the current ecological, social and economic problems. With the Austrian Wood Initiative, we highlight the value of wood and its enormous potential for innovative and sustainable growth.

A sustainable social and economic structure is based on the use of wood as a raw material, building material and energy source. Utilizing wood sustainably helps to actively safeguard the environment while ensuring employment and revenue along the full value chain. Thus, it is crucial to advertise and grow Austria as a commercial location for its cutting-edge forest-based sector.

In our regions, the forestry and timber industry contribute significantly to value creation. However, the industry also has to deal with some considerable challenges. The Austrian Federal Government established the Austrian Forest Fund in response to the consequences of climate change on our forest stocks. The Forest Fund supports tangible actions to increase the material and energetic use of wood by granting financial aid to forest managers so they can repair damage and adapt forests to be more resilient. These initiatives vary from climate-friendly building to improving and developing the legal and technical guidelines for the growing use of wood in the construction sector, as well as basic and applied research serving as the foundation for creative advances for the use of wood as a raw and building material as well as energy source.

Let's build a sustainable future together!



Federal Minister
Norbert Totschnig

Inhalt

1 Summary	6
2 Voices of the Wood-based value chain	8
3 The Austrian Forest-based sector	12
4 The Austrian Forest Fund	16
5 The Austrian Wood Initiative	19
5.1 Objectives of the Wood Initiative.....	20
5.2 Aims and principles of the Wood Initiative.....	21
6 Information modules of the Austrian Wood Initiative	23
6.1 Governance.....	25
6.2 Timber Construction.....	31
6.3 Innovation	34
6.4 Training.....	41
6.5 Communication	45
6.6 Energy.....	47
7 Flagship projects	50
7.1 Contribution to the European Bauhaus: Exhibition building – building, designing and living with wood.....	52
7.2 Contribution to the European Bauhaus: Endowed professorship – sustainable building with wood and other bio-based building materials.....	52
7.3 Contribution to the European Bauhaus: Doctoral School – Creating a sustainable future with wood.....	54
7.4 woodCircle – Think Tank Wood.....	55
8 Information on procedures and contacts	56

1 Summary

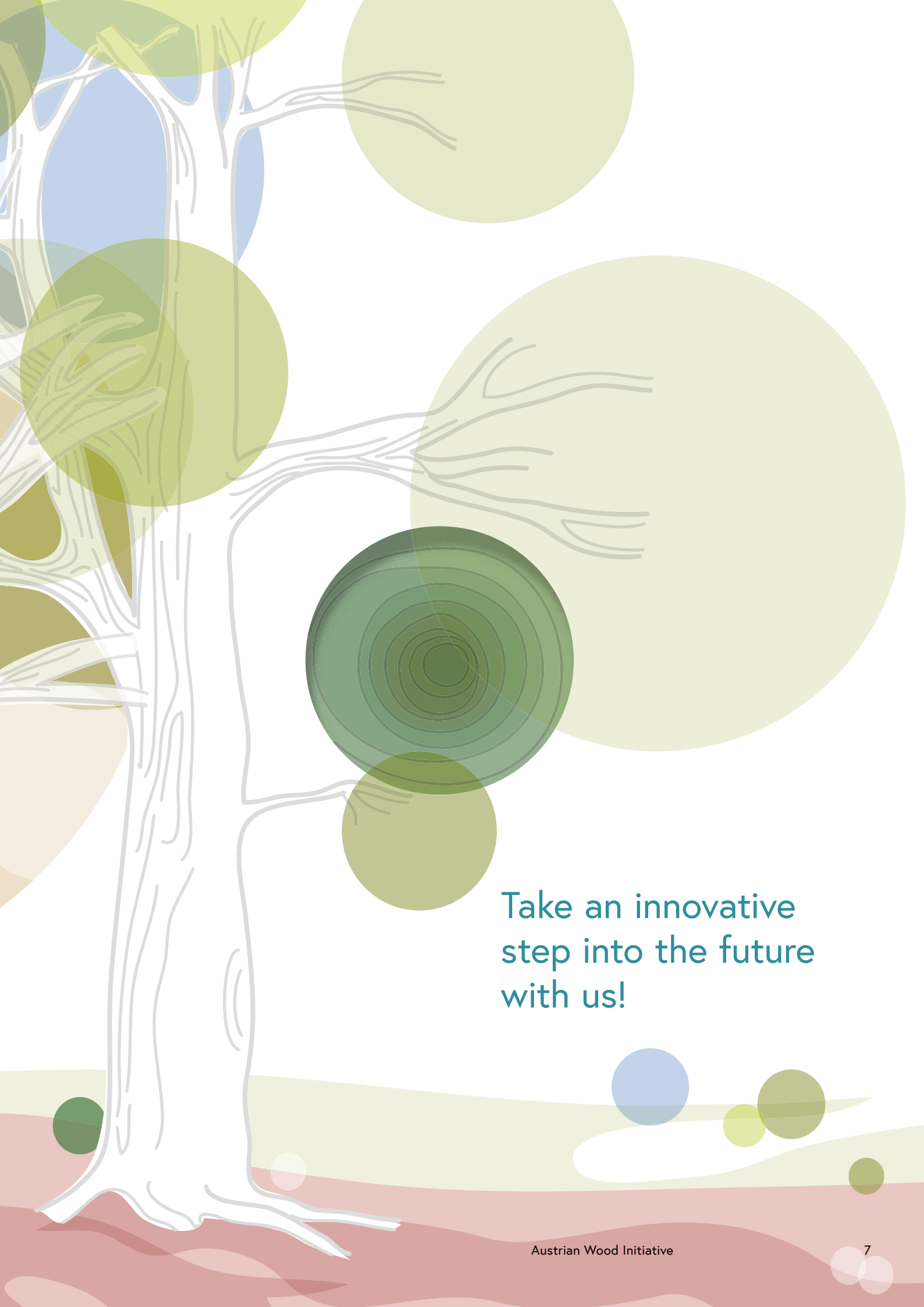
Approximately 48% of Austria is covered with forest, which is a significant contributor to value creation, particularly in rural areas. The threat that climate change poses to our forest stocks, however, presents a significant concern for forests and the wood-based value chain. Policymakers have responded to this and other challenges by providing excellent financial and legal assistance for forest management as well as a boost for the entire value chain. The Federal Government has created a relief and investment package as a support tool. The Austrian Forest Fund with a volume of 350 million Euro, was set up to assist woodland farmers in repairing and preventing forest damage, to promote the growth of climate-friendly forests and to encourage the use of sustainably harvested wood as an active means of preserving the environment. The expansion of (fallen) wood sales opportunities and the associated revenue enable forest owners to make the necessary financial commitments for a climate-fit and resilient forest.

The Austrian Wood Initiative is also a contribution to the new European Bauhaus. The motto “Creating a sustainable future with wood” ensures that the individual measures of the Wood Initiative contribute to ecological, innovative and social development.

This brochure features the extensive activities of the Austrian Wood Initiative, funded by the Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML) in collaboration with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) from the resources of the Austrian Forest Fund. The measures span the full value chain and target both the improved material and the strategically chosen energetic use of wood. The measures involving the use of wood for energy include the creation of research facilities and a host of research projects to produce gas and biofuels from wood. Aside from the promotion of buildings made of wood, the highly extensive efforts intended to promote the use of wood as a material focus on proactive research and measures in the field of education and training as well as networking. Austria's international reputation as a country of forests and wood is to be enhanced and promoted and better legal and social framework conditions should increase the contribution of wood in terms of the bioeconomy and climate protection.

This brochure not only serves to provide information about the Austrian Wood Initiative, but is also a notebook that can be used to record brainwaves and project ideas. These ideas can be sent directly to the Federal Ministry of Agriculture (holz@bml.gv.at) or to the processing agencies Austrian Research Promotion Agency (FFG) (www.ffg.at/programm/thinkwood) or Kommunalkredit Public Consulting (www.umweltfoerderung.at/waldfonds).

Get involved in the Austrian Wood Initiative and submit your projects and ideas.



Take an innovative
step into the future
with us!

2 Voices of the Wood-based value chain

Recent studies by the Institute of Economic Research (WIFO) and the Economica Institute have amply shown the significance of the forestry and timber industry cluster to the national and regional economies.¹ The transition to a sustainable and climate-neutral economy also heavily relies on the wood-based value chain. The Austrian Wood Initiative aims to spur the development of new products that are in line with the bioeconomy and the circular economy. Meanwhile, cutting-edge solutions, processes and services are created to support the resource and energy transition while also enhancing the competitiveness of domestic businesses and protecting local jobs.

The following are statements by experts on their expectations of the Austrian Wood Initiative.

1 WIFO (2021): Regional employment in the forestry and timber industry cluster in Austria; Economica Institute for Economic Research (2021): Significance of the forestry and timber industry for Austria's economy.



‘The forestry and timber industry associations in Europe agree that more domestic hardwood species need to be used industrially, particularly within the continent. Research and development as well as education and training are crucial components in this process. The Wood Initiative should be viewed as a chance to increase the economic value of wood and contribute to a future forest that is climate-friendly.’



Maria Kiefer-Polz
a Vice-P resident of the
European Organization of
the Sawmill Industry (EOS) –
Hardwood sector

‘Wood is the raw material for the 21st century that contributes greatly to protecting the climate and saving resources. We need to get busy now and fight the climate crisis by thinking and building in wood.’



Dr. Erich Wiesner
Chairman of the Cooperation
platform Forestry-Wood-Paper

‘I anticipate that the Wood Initiative will help us further bundle the sector’s resources. I also hope that more people will be aware of the recyclable and eco-friendly construction material. The biggest obstacles must be overcome collectively in order to put wood on a par with other building materials.’



Herbert Jöbstl
President of the Austrian
Timber Industry Association

‘In terms of the bioeconomy, there are more and more wood-based alternatives for climate-damaging products. We expect research to be stepped up and a secure supply of sustainable wood.’



Dr. Kurt Maier
President of Austropapier



Ulrike Szigeti
Vice Rector of the University
of Applied Sciences Salzburg

'A skills programme with an international focus is also part of education and training that emphasises the huge potential of wood as a sustainable raw and building material. Aside from extensive technical training in wood technology, timber building and the timber business, communication and intercultural competence are also crucial subjects to cover. The Wood Initiative aims to foster worldwide cooperation by offering incentives for education and further training, for instance through the Virtual Wood University and exchange programmes.'



Dr. Erlfried Taurer
Vice President of the
Austrian Timber Industry
Association, Austrian
Chamber of Commerce

'The Wood Initiative addresses basic and encouraging developments that offer growing potential, especially for wood and wooden products. Of particular importance for a sustainable economy are resource efficiency, recycling, bioeconomy and circular economy.'



Sylvia Polleres, Austrian
Society for Timber Research –
Head of the Department of
Timber Construction

'I welcome this initiative since it sends a strong message about climate protection by using more wood as a raw material. Additionally, I see the rising use of wood in residential construction as a chance to raise public awareness of the advantages of this type of building.'



Siegfried Erwin Fritz
Master of the Federal Timber
Construction Guild, Austrian
Chamber of Commerce

'I expect more awareness of climate-friendly construction with wood in our society, greater cohesion within the timber value chain, additional innovative timber construction ideas at universities and in carpentry workshops as well as the sustainable strengthening of rural areas.'

‘Outstanding architectural visions can be realized with wood. It would be fantastic to have greater political support and coordinated communication to highlight the quality and possibilities of wood as a building material in sustainable, healthy and at the same time elegant buildings. By, for instance, conducting effective educational work in communities and with other contracting authorities regarding the benefits of building with wood, adapting regulations, building codes and technical provisions as well as developing a better skills base, the Wood Initiative should help to break down barriers.’



Marleen Viereck
CEO Viereck Architects

‘Effective and successful climate protection is based on sustainable forestry, the provision of wood products and bioenergy. I have no doubt that the Austrian Wood Initiative, with its emphasis on bioenergy and timber building, will successfully combine our objectives of regional value development, supply security and climate protection.’



Franz Titschenbacher
President of the Chamber of Agriculture (Province of Styria) and President of the Austrian Biomass Association

‘The Austrian Wood Initiative is an appropriate, cycle-oriented approach designed to support climate conservation and local value creation in an era of rising demand for wood. The utilization of the forest in this context must be environmentally and naturally friendly and incorporate biodiversity protection.’



Franz Maier
President of the Environmental Umbrella Organization

‘Forest can do more – wood can do everything. The first and most crucial raw material for a sustainable bioeconomy suited for the future is wood from multifunctional forestry. In addition to offering clean air and water, a habitat for biodiversity, a contribution to climate protection and recreational space in the forest and in wooden homes, sustainable forestry provides protection against natural hazards.’



Felix Montecuccoli
President of Austrian Agriculture & Forestry Businesses

3 The Austrian Forest-based sector

Sustainability has been a core principle of forestry for over 300 years. The current forest inventory² shows more than four million hectares of forest with a growing stock of 1.18 million cubic metres. This makes Austria one of the most densely forested countries in Europe, with both the forest area and growing stock increasing for decades.

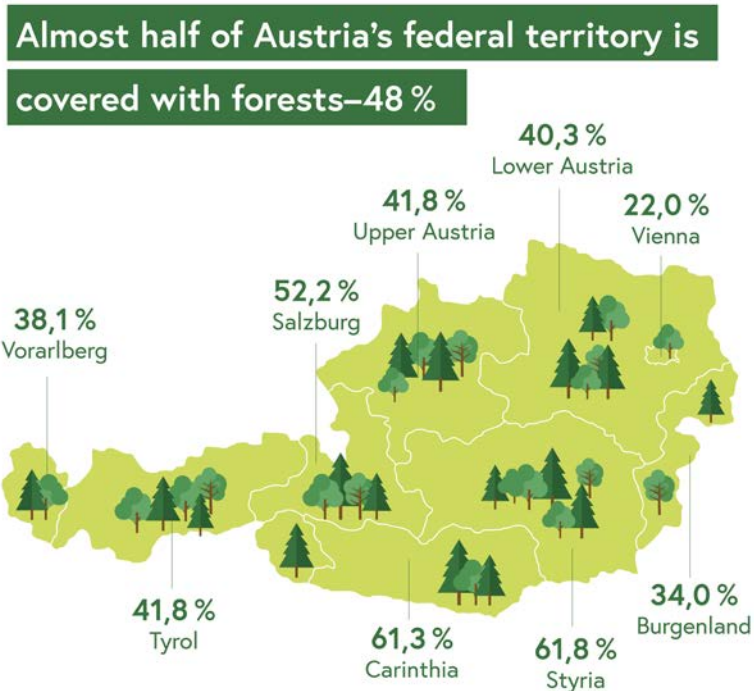


Fig 1:
The Austrian Forest Inventory – data basis 2016/21, BML/BFW
Source: Austrian Research Centre for Forest, 2022

Only approximately 26 million cubic metres are consumed annually, despite the expanding stock totalling more than 1.1 billion cubic metres and yearly increments hovering around 30 million cubic metres. In other words, more wood regenerates than is actually used. The majority of the timber is used for construction. One-quarter of fresh wood is utilized directly for the production of energy, (as firewood and wood chips)³, while two thirds of it passes through the woodworking sector as sawlogs and industrial roundwood, including the manufacturing of pulp. Additionally, wood is crucial to the strategic growth of Austria's bioeconomy⁴. Wood serves as the primary renewable biogenic resource in Austria and serves as the foundation for many different goods.

2 BML: Forest Inventory of the Austrian Research Centre for Forests (BFW).
3 Timber flows in Austria. Available at klimaaktiv.at
4 Bio-economy – a strategy for Austria. Available at bmk.gv.at

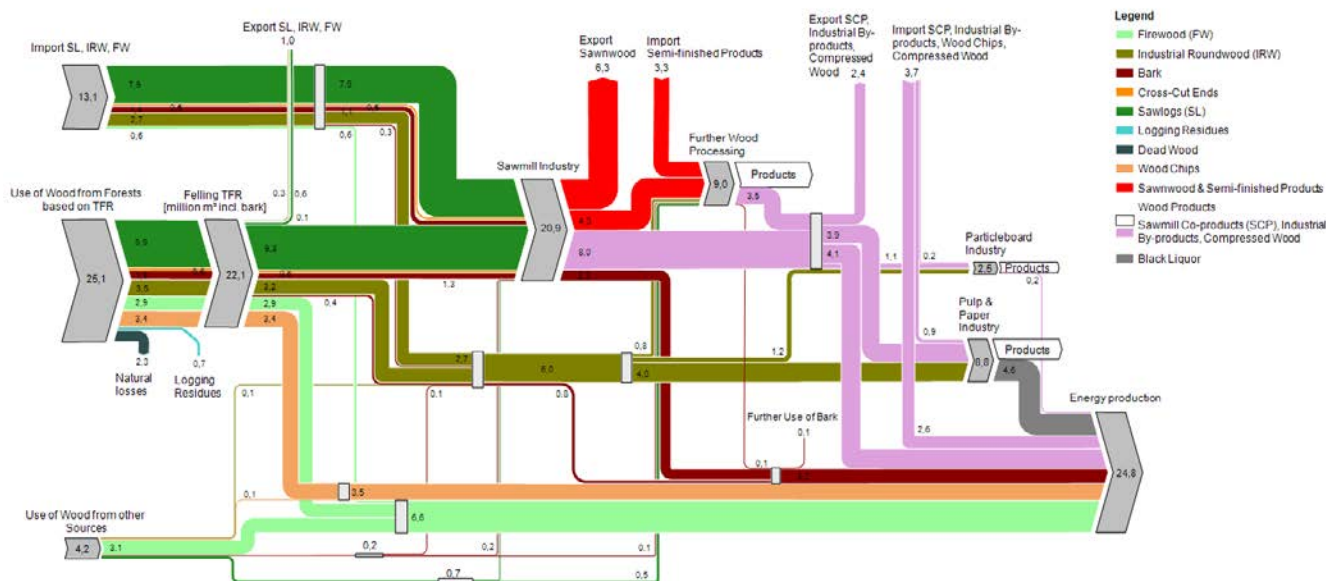


Fig 2:
Wood flows in Austria
Reference year: 2019
Prepared by Lorenz Strimitzer,
Martin Höher, Österreichische
Energieagentur – Austrian
Energy Agency, Kasimir
Nemestothy, LKÖ
All values in million cubic
metres harvested solid cubic
metres [cm], cubic metres
[m³]; flows <0.1 million cm
are not shown; rounding
differences calculated.

Austria has seen the establishment of numerous efficient businesses in the forest-based sector. These businesses are skilled at utilising the benefits of the European Single Market as well as the rising demand brought on by the expanding population and new potential applications for the raw material wood. For these businesses, a key geographic element is the consistent and high-quality supply of raw materials and locally produced primary products.

Many jobs are created, especially in rural areas, by sustainable forest management and competitive commercial enterprises along the wood-based value chain. 115,000 persons are employed by Austria’s forest-based sector in total (including intermediate inputs), which is 2.53% of all domestic jobs. As a result, the timber industry supports every 40th employment in Austria. In the whole wood-based value chain, there are around 300,000 jobs that support the local economies. Thus, the forest-based sector is responsible for every 15th job and every 17th Euro of Austria’s gross value added⁵.

5 Economica Study: “The economic importance of the Austrian wood sector.”
Update 2019, Statistik Austria, figures rounded off

Short Facts “Austria’s Forest-based sector”

- With every Euro generated in the timber industry, a further 90 cents of value added is triggered in other sectors. (Value added multiplier: 1.9)⁶
- Through direct and indirect effects, the entire wood-based value chain achieves a gross value added of over 20 billion Euro⁶
- In other words, the forest-based sector makes up around 5.7% of the national economy (2018)⁷
- In 2020 Austria achieved an export surplus of 3.8 billion Euro from wood and wood products.
- Over the last 60 years, the forest area went up by 300,000 ha (area of the Upper Austrian Mühlviertel region)⁸
- In 2020, Austria was the eighth-largest producer of sawn wood and the seventh-largest exporter of sawn wood in the world⁸

“Sustainable forest management is the starting point and foundation for the economic miracle of forests and wood as well as for active climate protection. The Austrian Wood Initiative is an essential building block allowing us to increase the use of wood, thereby not only replacing the production of CO₂-intensive materials like steel and concrete, but also storing the climate-damaging CO₂ in the long term in wood products and wooden buildings. The potential of the renewable raw material wood for climate protection and the national economy is immense and the increased use of wood and wood products is also something that society wants.”

– Rudolf Rosenstatter, Chairman Forest Association Austria



6 Economica study: “The economic importance of the Austrian timber industry.” Update 2019, Statistics Austria, rounded figures.

7 FHP Forest-Wood-Paper Cooperation Platform

8 FAO Forest Products Yearbook, FAOSTAT-Forestry database, 2020

4 The Austrian Forest Fund

The effects of climate change are an increasing threat to Austria's forests in their current structure. As part of the Forest Fund Act, the Austrian Federal Government has come up with a major package of 350 million Euro to safeguard the future of our forests. This will support those forest owners making the necessary investments for a climate-friendly forest.

Only a sustainable forest management which increases resilience and is adapted to climate change (hereinafter "sustainable forest management") can guarantee other socially important forest functions, such as the protection of biodiversity, optimization of the carbon-reduction function or the recreational function. This package covers ten different areas of activity that include the core area of forestry, the entire forest-wood-paper value chain plus the needs of society. One major objective of the Forest Fund is to promote the use of sustainably produced wood as a raw material in line with the bioeconomy and climate protection.

It is the role of politics and administration to create the parameters for sustainable forest management and the preservation of all effects of the forest, as well as to involve all interest groups. With the Austrian Forest Fund, the Austrian Federal Government has come up with a rescue and future package for Austria's forests, which will benefit us all. — Maria Patek, Head of the Directorate-General Forestry and Sustainability at the BML

Details on the individual fields of activity:

www.waldfonds.at

The measures 7 and 9 of the Austrian Wood Initiative are integral components of the Austrian Forest Fund and 93.5 million Euro are earmarked for both areas.



10 Areas of activity

1. Reforestation after damage events
2. Developing climate-fit forests
3. Compensation for loss of value caused by bark beetle damage
4. Setting up wet and dry storage facilities for damaged timber
5. Mechanical debarking and other preventive forest protection measures
6. Measures to prevent forest fires
7. Research measures and research infrastructures for the production of wood gas and biofuels
8. Research measures on the topic of "Climate-fit forests"
9. Measures to increase the use of wood as a raw material*
10. Measures to promote biodiversity in the forest

Fig 3:
The Austrian
Forest Fund

* In coordination (agreement) with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK).



5 The Austrian Wood Initiative

Wood offers ecologically valuable and climate-friendly solutions for a sustainable present and future. This is precisely the reason why the Austrian Wood Initiative comprises measures, activities and ideas that use the renewable raw material wood efficiently and innovatively as a material, especially as a building material and as a source of energy.

One cubic metre of wood grows in Austria's forests every second. As a result, up to 250 kg of carbon is removed from the atmosphere every second (equating to approx. 1 ton of CO₂) and stored in the wood structure over the long term⁹. The sustainable use of the raw material wood as an energy source avoids emissions detrimental to the climate and is a mainstay of the bioeconomy and climate protection with a high degree of economic and social significance. Wood is a renewable alternative to materials with higher life-cycle emissions like fossil fuels. Carbon storage in the forest along with the use of wood from sustainable forest management thus makes an active contribution to climate protection and decarbonization. The CareforParis study shows that the forest and the use of wood play a major role as a CO₂-reducer. One of the greatest leveraging factors in the forest-based sector for climate protection is sustainable forest management adapted to climate change and the substitution of fossil raw materials with wood products and the emissions thus avoided, along with the reduction of emissions or increase in carbon storage¹⁰.

Austria's regions have a great potential for strengthening and further developing the bioeconomy with their broad range of available renewables, with wood as an important raw material and a host of innovative small and medium-sized enterprises. Encouragement should be given to regional and municipal stakeholders in the relevant sectors of the bioeconomy, also including the wood-based value chain, to develop showcase projects that will be disseminated far beyond the region via a network.

The Wood Initiative is designed to secure previous successes along the wood-based value chain, which is important for the national economy and to provide additional new stimuli in research, training and technology transfer. Innovative products and technologies in line with the bioeconomy and the circular economy, plus technical solutions and services, should make a positive contribution to the resource and energy transition while at the same time boosting the competitiveness of local businesses and securing jobs in the regions.

⁹ www.holzistgenial.at

¹⁰ Weiss P. (2016), CareforParis: Adaptation for carbon efficient forests and the entire wood value chain (including a policy decision support tool) - Evaluating pathways supporting the Paris Agreement

“Austria’s timber industry is the frontrunner in technology and in modern timber construction and has already completed a host of flagship projects throughout the world. The more wood is used in construction or processed into wood products, the more carbon is fixed and the better it is for the climate. The Austrian Wood Initiative can contribute to timber construction achieving the status that it merits based on its climate-friendly properties.” – Dr. Erich Wiesner, WIEHAG Holding GmbH



5.1 Objectives of the Wood Initiative

Alongside the wood-relevant target areas anchored in the Austrian Forest Fund, the Wood Initiative pursues the following sub-objectives:

- Best use of the domestic renewable raw material wood, as a building material and energy source in line with the bioeconomy and climate protection, based on applicable sustainability criteria.
- Increasing the sustainable use of wood, with the aim of reducing greenhouse gas emissions, to achieve the best possible substitution of CO₂-intensive materials and to develop the storage of carbon in durable wood products.
- Preserving and developing Austria as a timber country with its innovative wood-based value chains

- Securing and increasing income and protecting regional jobs along the wood-based value chain.
- Solving specific problems regarding the use of wood for material and energy purposes in line with climate neutrality
- Endorsing new and innovative product and process developments in line with the bioeconomy and the circular economy
- Promoting technical solutions, processes and services as a significant contribution to the resource and energy transition and climate protection
- Adapting and creating parameters, standards and other regulations for the use of wood as an energy and material source
- Developing and applying modern, innovative approaches in Austrian education and further training on different emphases as a contribution to the establishment and further development of subject-specific human capital
- Promoting interdisciplinary cooperation between industry, science and education
- Actively shaping wood policy through participation in relevant national, European and international formulation and implementation processes
- Securing and reinforcing the parameters for the sustainable provision of wood as a raw material and its processing as a secondary raw material in line with the circular economy

5.2 Aims and principles of the Wood Initiative

The measures and activities of the Wood Initiative are based on the following principles:

- A visionary response in line with a sustainable, decarbonized social and economic system
- Initiating bold, new and innovative paths along the wood-based value chain
- Holistic approach, from research through education to the marketplace
- Focus on the development of practical and result-oriented output
- Reflecting on existing strategies, programmes and initiatives (SDG's, Austrian Sustainable Development Strategy, Austrian Forest Strategy, Bioeconomy Strategy Austria, National Climate and Energy Plan, Climate Change Adaptation Strategy, Biodiversity Strategy, etc.)
- Networking and cooperation with relevant actors, stakeholders and institutions

“The Wood Initiative is a holistic total package to solve the challenges of our time for the benefit of a sustainable present and future.” –

Dr. Georg Rappold, Head of Business Unit Wood-Based Value Chain at BML

Short Facts “Austrian Wood Initiative”

- Implementation of various measures with coordinated subsidies and services in two major sub-areas:
 - Material use of wood
 - Energetic use of wood
- Generating innovations in the forestry and wood sector that significantly contribute to the resource and energy transition and make the forest and its management fit for the future
- New products in line with the bioeconomy and circular economy
- New technical solutions for wood and timber construction
- New processes and services in the world of wood
- Knowledge transfer and networking (BAUHAUS, BildungsLAB etc.)



6 Information modules of the Austrian Wood Initiative

The Austrian Wood Initiative comprises a host of specific measures to boost the material and energetic use of the sustainable raw material wood. These are assigned in modules and range from policymaking to the material use of wood, innovation, education and training, communication and the production of energy from wood (see figure).

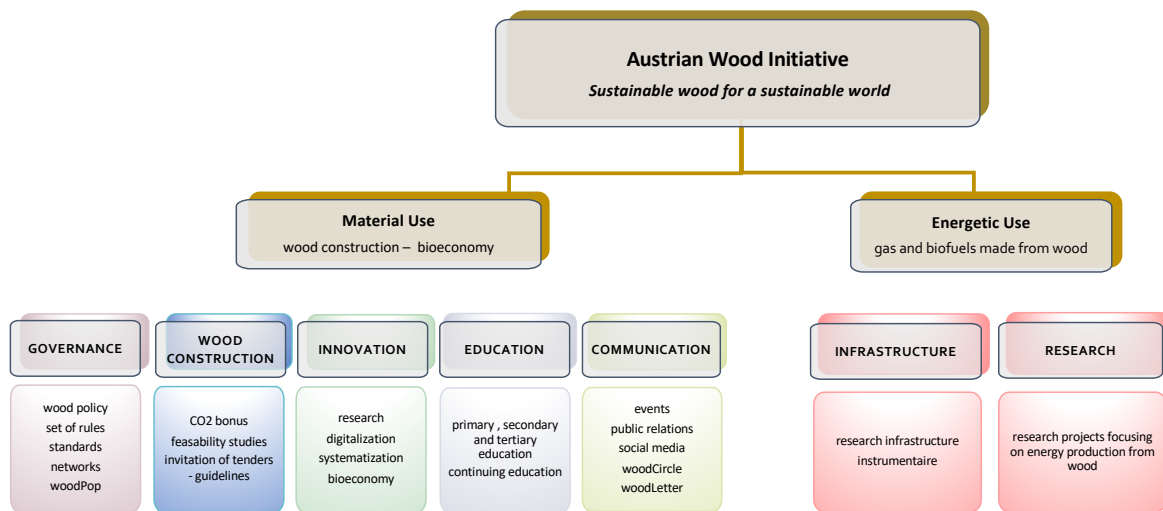


Fig. 4: Modules of the Austrian Wood Initiative

Material use of wood

Wood is a crucial component of construction. The Austrian Forest Fund's measure 9 aims to advance wood building and related research. Another goal of this policy is to encourage the use of wood as a raw and building material to replace CO₂-intensive materials and to store CO₂ in wooden structures. The advantages of wood as a raw and building material for sustainable development in terms of ecological, economic and social aspects are focal points of activities in the areas of governance, education and further training, business and research, as well as the promotion of innovations relevant to the topic.



Energetic use of wood

Wood is a renewable raw material that should be used in place of fossil fuels to promote sustainable development. Obtaining biomass from waste materials and by-products from the forestry, wood-processing and paper and pulp industries is a sustainable way to guarantee a supply of climate-friendly energy. Learning how to produce and use wood gas and biofuels on a practical level is the goal of measure 7 of the Austrian Forest Fund.

In light of this, research infrastructures are being set up to produce hydrogen, gas and biofuels from wood. Additionally, specific studies are being conducted on subjects including thermochemical conversion processes, gas purification, separation and syntheses (methanization, hydrogen from biomass etc.).

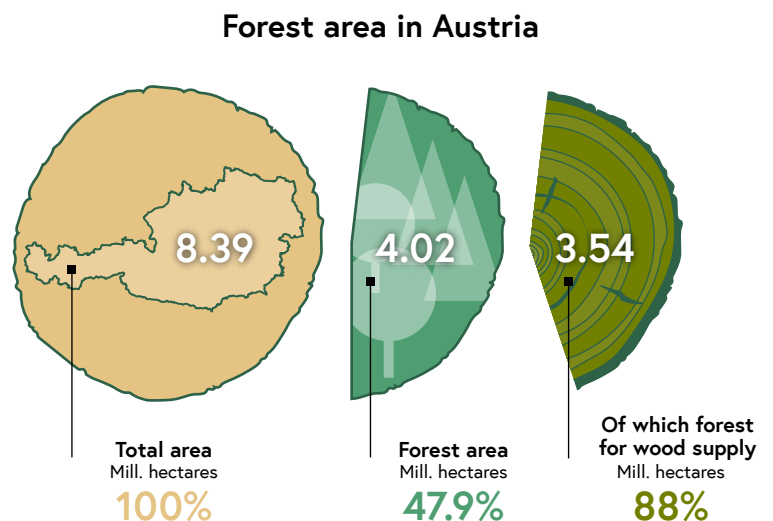
“Wood is a unique building material. It appears naturally, grows back and creates a variety of architectural options. Wood has a lot of promise for the construction business when used properly. It adds a positive vibe to buildings and can speed up the completion of construction projects. As BIG, we have built residential buildings and a number of largely wood-based public structures, including university campuses.” – Hans Peter Weiss, (Managing Director BIG – Bundesimmobiliengesellschaft m.b.H.)



6.1 Governance

Due to the ownership structure and the markedly small and medium-sized firm structures in many sections of the wood-based value chain, the forestry and timber industry is thought to be relatively fragmented. Numerous present-day issues and tasks for future growth, such as the transformation of the present forest into a climate-fit forest, issues with transportation logistics, positioning of timber construction with regard to its environmental impact, design of pertinent standards and regulations, etc., cannot be resolved by a single company or small interest group. Given the current situation and future challenges, the guiding principle “Together we are stronger” is becoming more and more important. Networking, collaboration and simple experience sharing are crucial components.

The “Governance” component is utilized to carry out targeted measures for institutional positioning and strengthening. The emphasis is on national and international cooperation as well as cross-sectoral cooperation among businesses, research institutions and politics. The goal is to pool talents and promote Austria as a showcase nation for wood. Austria is ideally situated to do this and should make the fullest use of its forestry share of about 50% and its many innovative stakeholders.



6.1.1 Wood policy

- Coordination, design, formulation and execution of policies at the national, European and international levels (European and global Wood Policy Platform – “woodPop”)
- Positioning Austria as a showcase wood nation with theme leadership in specific economic, technological and scientific fields
- Establishing and enhancing international multilateral and bilateral cooperation in order to assist the country’s wood-based value chain and fulfil Austria’s international obligation to promote the sustainable use of (forest-based) resources (e. g., cooperation with individual countries or with international organizations such as the FAO)

Fig 5: Austria as a country of forests and wood:
Source: Austrian Forest Inventory 2018

6.1.2 Promoting the use of wood and improving the parameters

- Enhancing the regulatory environment for the manufacture and use of wood-based goods and technologies
- Coordinating building codes as well as technical and building regulations.
- Encouraging the use of wood and wood construction in public procurement in the public and semi-public sector (federal government, provinces, municipalities)
- The creation of topic-specific research, expert judgments and ideas, as well as the execution of socioeconomic analysis, stakeholder surveys and interactive workshops

6.1.3 Supporting standardization initiatives at the national, European and global level

- Establishing a coordination body for national and international standardization
- Coordinating activities and harmonizing national and international building standards and regulations, as well as developing standardization expertise, such as in the areas of fire protection, sound insulation and joining techniques
- Further development of national and European standards for ecological materials and modular construction for (multi-storey) timber construction
- Enabling Austrian experts to actively cooperate and participate in European and international standardization processes (CEN and ISO committees)

6.1.4 Advisory network – Wood

- Creating a network of wood consultants that covers all of Austria with an emphasis on planning, building with wood and wood-hybrid structures
- Encouraging and developing local and regional alliances between planners, architects and wood-processing businesses.
- Offering additional training possibilities in the form of seminars and other training events including professionals from the many sectors of timber construction, such as architecture, (building) materials, timber construction, wood preservation, building physics, etc.
- Organized visits to wooden buildings, businesses, research facilities etc.

6.1.5 Bioeconomy Cluster

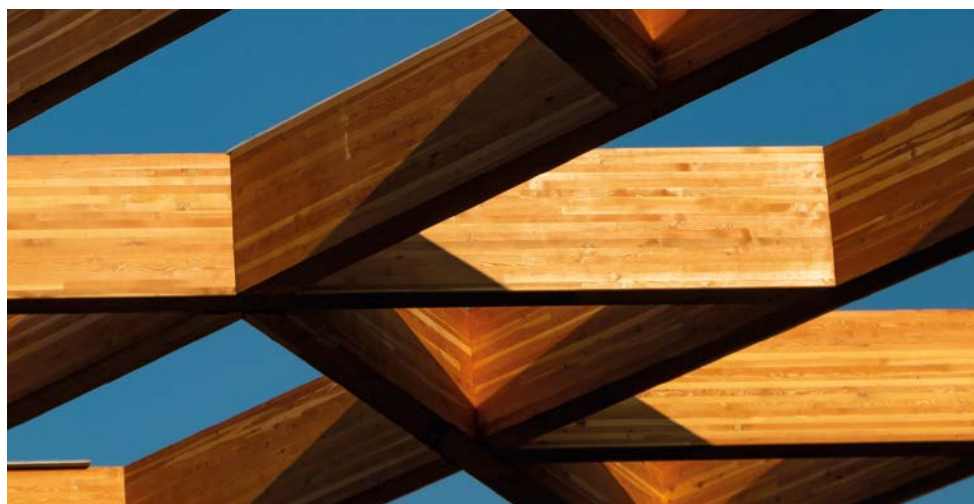
- Development and establishment of an agency operating at a national level in the areas of the bioeconomy
- Networking of existing clusters in Austria relevant to the bioeconomy
- Coordinating and highlighting activities in the field of the bioeconomy
- Communicating or functioning as an active interface to the European Union and beyond in the field of the bioeconomy

6.1.6 Wood.Circle – Think Tank Wood

- The Wood.Circle is a platform for exchanging knowledge and coordinating different activities related to the material and energetic use of wood.
- Experts as in administration, business, research and science exchange views and provide recommendations on how to address current and upcoming challenges with the use of wood.
- For more details see Chapter 7.4

“The solution to our climate dilemma must include wood. We therefore warmly appreciate this initiative and hope that it will lead to increasing wood use, particularly in the public building and renovation sector, as this is now also politically desirable. In addition, making an investment in training is crucial. We require architects and engineers that know the best places to employ our valuable building materials as well as how to best utilise their capabilities. This will require more professorships at the universities!” –

Richard Stralz, Chairman of ProHolz Austria



Short Facts „Governance“

Alongside measures 7 and 9 of the Austrian Forest Fund, the Austrian Wood Initiative respects the requirements of the Government Programme 2020–2024 as well as the core elements of the Forestry, Wood and Paper Sector Strategy.

The government programme 2020–2024 includes among other things:

- Promoting timber construction and ecological building materials
- Adapting building standards and agreements with the federal provinces to revise building regulations and funding instruments
- Precedent of the public sector in buildings to be constructed (sustainable procurement)
- Focus on research into timber construction
- Priorities relating to the promotion of progress-oriented climate and energy policy (climate-neutral administration)
- Development of suitable instruments to promote renewable raw materials in all product areas and business sectors
- Securing the regional availability of renewable raw materials for the bioeconomy (establishment of a bioeconomy cluster)

The focal points of the Forest, Wood and Paper Sector Strategy include:

- Exploiting the greatest possible sustainable wood use
- Ensuring wood flow in line with demand
- Increasing the use of wood in the building sector (construction)
- Increasing the use of wood in the non-construction sector
- Replacing petroleum-based products with wood (bioeconomy)
- Boosting material efficiency
- Expanding the multiple use/cascade use of wood (circular economy)
- Strengthening wood logistics on road and rail
- Enhancing global competitiveness and regional added value
- Bespoke training and apprenticeships to ensure a skilled workforce

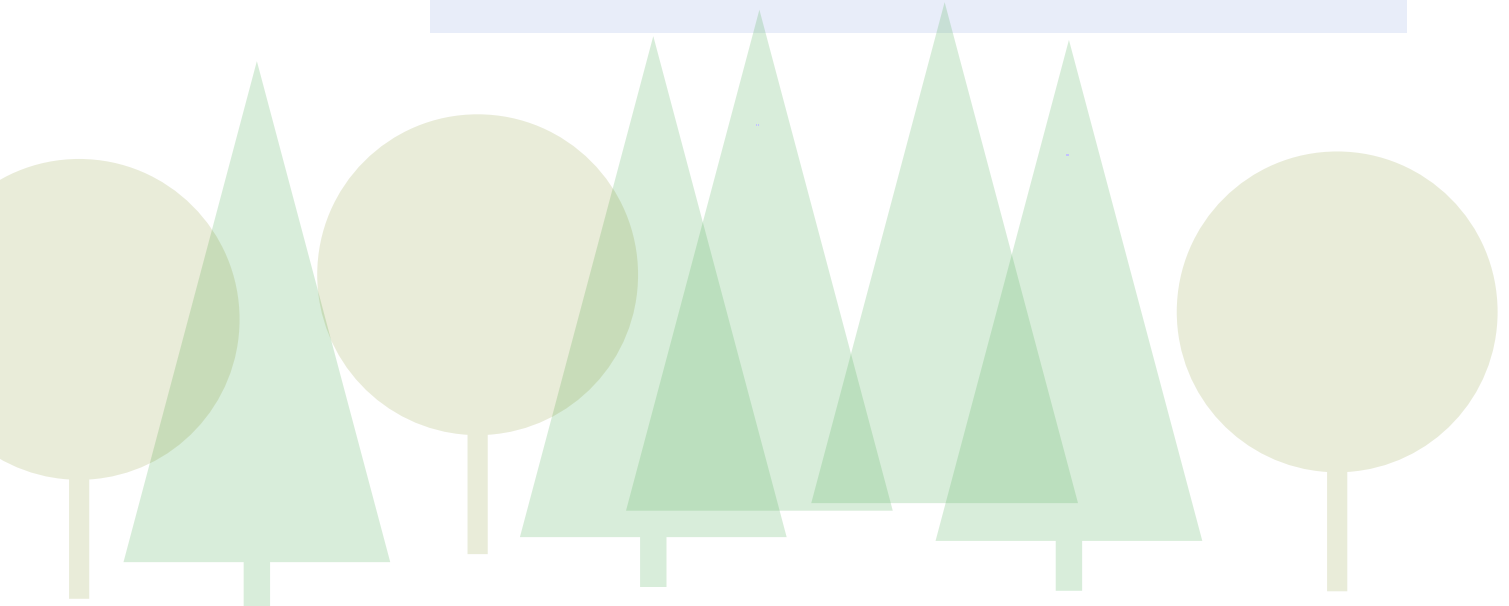
Important Austrian and European wood associations and platforms

- Professional Association of the Timber Industry – www.holzindustrie.at
- Cooperation platform Forest-Wood-Paper (FHP) – www.forstholzpapier.at

- European Woodworking Industry Confederation (CEI Bois) – www.cei-bois.org
- European Organization of the Sawmill Industry (EOS) – www.eos-oes.eu
- European Panel Federation EPF – www.europanel.org
- European Furniture Industries Confederation (EFIC) – www.efic.eu
- Innovawood (European Wood Research Institutes) – www.innovawood.com

National, European and international standardization and construction products

- Austria is a member of CEN, the “European Committee for Standardization”.
- CEN is a private, non-profit organization whose goals include creating technical standards that are consistent with the European economy’s needs and ensuring the comparability and safety of goods and services.
- »Austrian Standards« operates as an independent and neutral organization for standardization and innovation in Austria. It coordinates and organizes the national standardization system alongside the tasks and active cooperation linked to membership and collaboration in CEN.
- »Austrian Standards« serves as the primary organizing body for collaboration and intervention in the ISO, which is mostly independent of the work done in CEN.
- In Austria, construction is subject to provincial legislation, which means that there are nine different building codes.
- In each situation, the legal requirements for building construction (also known as building regulations) must be followed in addition to the evidence of safety provided by the CE marking of the relevant building product.
- In Austria, the Institute of Construction Engineering (OIB), as the coordination platform of the federal provinces, regulates, coordinates and monitors the building requirements in the respective building codes, while at the same time acting as the national approval body for building products.



6.2 Timber Construction

Wood has traditionally been the building material in Austria and is currently experiencing a renaissance. In recent decades the construction industry predominantly preferred steel, glass and concrete as building materials. There are several reasons for this: for example, new timber construction methods and production techniques have been developed, which have greatly expanded the areas of application for wood in the construction sector, while ecological factors are also increasingly advocating this climate- and environmentally-friendly building material. The measures of the Wood Initiative are intended to improve the framework conditions and to promote the systematic and efficient use of wood from sustainable forest management to enhance climate protection. With the promotion of large-volume timber buildings, particularly in the public and semi-public sector, specific steps are being taken to increase the amount of timber construction in the medium and long term.

“Austria can look back on a proud timber construction tradition that our engineers can draw on to complete large-volume timber buildings. One special wish of mine is that as many nurseries and schools as possible be built in wood. One important issue for the future is redensification with wood. Here there are prefabricated timber solutions, for example for the superstructure of shopping centres. In any case, Austria is on the right track!” – Caroline Palfy, Managing Director, Handler Bau GmbH

6.2.1 Promoting CO₂-friendly construction

- Decarbonizing the building sector by promoting timber construction projects for school buildings, nurseries and public buildings
- Promoting buildings for residential or public purposes and for public infrastructure in large-volume timber construction
- Investment premium per kg of wood used from traceable sustainable forestry
- Funding as a grant up to 50%, maximum EUR 500,000 (in the case of participants in tenders, the De-minimis rule of a max. of EUR 200,000 applies)
- Detailed information on the CO₂-bonus is published on the Website of Kommunalkredit Public Consulting: www.umweltfoerderung.at

„As a natural composite, wood facilitates a host of material combinations, which are a prerequisite for engineering innovations.“ –

Dr. Richard Woschitz, RWT – Woschitz Group

6.2.2 Increasing the amount of timber construction

- Development or further sample tender specifications for the public and semi-public sector with regard to buildings in timber or timber hybrid construction methods
- Carrying out potential and feasibility studies (e. g. use of wood in residential construction as a contribution against urban sprawl and land consumption, wood as a solution for redensification in urban areas)
- Analysis of the direct and indirect effects of wood on human health, performance and well-being
- Preparation of socio-economic analyses and expert reports, including stakeholder surveys and interactive workshops.

Short Facts “Timber Construction”

- $\frac{3}{4}$ of the resources currently consumed by Austria are finite resources, particularly raw materials for building like sand or gravel¹¹
- Wood is a renewable and able to bind CO₂ making it a sustainable alternative to finite raw materials¹¹
- Unlike finite resources, wood grows back during the time we use it – e.g., as a building material in houses¹¹
- Transport distances for wood are short, usually with a radius of no more than 300 kilometres¹¹
- The provision of wood and forest biomass are substitutes for fossil energy resources or materials with higher life cycle emissions and reduce emissions or increase carbon storage¹²
- By-products and wastes generated during wood processing can be used for energy¹¹
- Every cubic metre of wood used binds one ton of CO₂ in the long term
- Wood is synonymous with diversity – computer-based production methods create completely new forms of design. From wide-span load-bearing structures to high-rise buildings, anything is possible¹³



11 <https://www.holzstgenial.at/blog/holz-waechst-und-waechst/>

12 Weiss P. et al. (2016), CareforParis: Adaptation for carbon efficient forests and the entire wood value chain (including a policy decision support tool) – Evaluating pathways supporting the Paris Agreement

13 <https://www.holzstgenial.at/blog/10-gute-gruende-fuer-bauen-mit-holz/>



6.3 Innovation

The innovation, new techniques and innovative projects that drive our economy must consequently be promoted. The overarching goal of the research programmes is to close gaps in knowledge, forge new paths and take advantage of existing research's synergies. One type of these is individual initiatives for businesses involved in the wood-based value chain and the other is joint projects amongst partners (such as universities, co-operative research institutes or universities of applied sciences).

The focus is on strengthening the sustainable and durable use of wood as a basic and building material with the aim of reducing emissions of greenhouse gases to achieve the best possible replacement of CO₂-intensive materials and to increase the storage of carbon in wooden buildings. Any developments and innovations along the entire value chain are designed to contribute to the achievement of these goals.

6.3.1 Improving the technical properties of wood, wooden buildings and sample solutions for the use of wood

- Optimizing the properties of wood as a raw material
- Providing sample solutions for the modern use of wood, for example for sound insulation, fire protection, wood-based insulation materials, load assumptions, material simulation and dimensioning as well as the use of wood in outdoor areas (moisture and weather resistance)
- Promoting hardwood technologies to improve the use of native hardwood species in the construction sector and other technical applications.
- Developing processes, measures and technologies for improved “dust management” in production
- Research in the field of architecture and structural engineering with wood

6.3.2 Systematization and parameterization of technical solutions for wooden buildings

- Creation of standardized basic building modules for planning, to reduce the complexity for users and to facilitate the application
- Evaluation, parameterization and deducing of performance characteristics of elements relevant to timber construction, including wall, ceiling and roof superstructures and connection details for residential construction
- Modelling and simulation of innovative technical solutions in the use of wood and wood composites

“One of the top global emitters of CO₂ is the construction industry. Therefore, the Austrian Federal Government’s move to promote ‘Building with wood’ through the Forest Fund is a good and timely one. In line with the motto ‘From vision to version,’ research creates knowledge and knowledge is precisely what is required to make innovations in – the form of wood-based building goods available for the building industry.” – Dr. Gerhard Schickhofer, Head of the Institute of Timber Engineering and Wood Technology; Graz University of Technology

6.3.3 Sample solutions for multi-storey wooden buildings, wooden skyscrapers

- Drafting and provision of planning samples for multi-storey timber construction and timber hybrid high-rise buildings with ecological and economic solutions for typology, supporting structure, fire protection and technical building equipment
- Development of fire prevention concepts to improve the reliability and effectiveness of fire prevention measures
- Creation of knowledge regarding the effects of high loads and long-term loading on the construction



6.3.4 Systematization of connection technology

- Closing gaps in knowledge regarding the properties of connections and binding materials in timber construction and their best possible design
- Development of design models for new wood-based building components and their connections
- Digitalization of models and simulation to facilitate and reduce planning and testing costs

6.3.5 Resource-efficient wood hybrid materials for construction, plant engineering and mobility

- Development of wood-based composite materials with high material efficiency and wood modification, including intelligent combinations with other materials (metals, plastics and composites, cement, ...). The aim is to obtain environmentally friendly high-performance, functional materials with specific property profiles for targeted areas of application
- Increasing the use of wood for infrastructure measures and modern technology solutions (wind turbines, mobility, vehicle construction, etc.), including the definition of material parameters for the creation and further development of standards.
- Functionalization of composites or wood-based components with regard to intelligent uses

6.3.6 Enhancing user satisfaction through improved technical properties of wooden structures

- Establishment of a knowledge and documentation platform for the construction industry (e.g., for the avoidance or early detection of structural damage)
- Knowledge on the practical correlation between theoretical and actual sound insulation properties of timber structures
- Improvement in fire prevention, sound insulation and thermal insulation properties of multi-layered building components
- Development of models and simulations on the load and use of timber structures in terms of a digital twin

6.3.7 Digitalization of the procurement, planning and production process as well as construction and building management

- Creation and expansion of knowledge platforms and databases
- Application of Building Information Modelling (BIM) and Life Cycle Assessment (LCA) as tools for technical and ecological enhancement.
- Creation of standardized data processing systems that can be implemented in practice
- Adaptation of planning and construction processes, considering an enhanced prefabrication process
- Detailed planning and industrialization in timber construction
- Definition of interfaces for compatibility of different software solutions
- Transfer of timber parts, components and fasteners into a format suitable for BIM
- Digitalization of processes and procedures in the planning, construction and use of buildings in timber construction (incl. maintenance costs and maintenance intervals)
- Digitalization of businesses in the wood-based value chain (e.g. robotics, sensor technology, networking, of plants and machines)

6.3.8 Replacing energy-intensive building materials, raw materials and other materials

- Basic research into the use of new materials (hardwood, alternative types of wood and other bio-based building materials) and material simulation
- Promotion of innovative uses of wood and wood-based materials in exterior and interior areas
- Analysis of the direct and indirect effects of wood on human health, performance and well-being
- Development and enhancement of wood-based products for various applications (e.g., windows, doors, flooring, staircases, wall and ceiling elements and other structural components)
- Promotion of research activities into product development in the field of biorefinery, bio-composite materials (3D printing), fibre construction materials (plaster, wallpaper, etc.) and bio-based adhesives and binders
- Development of higher-value uses for sawable and non-sawable hardwood ranges (small diameter hardwood processing)
- Other lignocellulose-based product developments for the benefit of the bioeconomy (fabrics, textiles, platform chemicals, etc.)

“Utilising biorefinery techniques facilitates the full utilization of the valuable resource wood. Wood is processed at Lenzing into pulp for the manufacturing of fibre and bio-based biorefinery products like acetic acid. Additionally, bioenergy is generated. As a result, one of the most significant industrial areas for a decarbonized future is the biorefinery.” – Dr. Stefan Doboczky, CEO of the Lenzing Group

6.3.9 Sustainable and innovative value chain based on the UN Sustainable Development Goals

- Life cycle analyses in the forestry-based production and processing chain
- Development of sustainable concepts for building and equipping with bio-based building materials for the benefit of the bioeconomy and climate protection (use and reuse, cradle to cradle)
- Extending the life cycle of timber buildings or timber hybrid construction methods
- Reuse and recycling of wood and wooden products (e.g., increase in waste wood recycling, wood products as secondary raw materials, development of appropriate norms and standards)
- Improving material cycles and development of design concepts for recycling (e.g., recovery or processing of pulp from wastewater)
- Improving (digital) process control and process networking in the various production processes
- Creating a sustainable circular economy by improving wood flows in the process chains (sorting, preparation, transport, further processing and wood recycling) and by adapting current standards and guidelines (example: glulam as a secondary raw material)
- Development of climate-friendly solutions with regard to transport issues and the delivery of roundwood, industrial wood and sawn timber as well as wood products and building materials (due diligence, logistic concepts,

6.3.10 Research skills – qualification seminars, innovation courses

- Imparting knowledge through qualification seminars, networking opportunities and innovation courses where personnel from participating companies receive long-term training in research, technology, development and innovation (RTDI).
- Anchoring business-relevant research priorities at Austrian universities and universities of applied sciences through innovation courses.

6.3.11 Brainstorming sessions – Hackathons – Youth Challenges

- Networking of stakeholders to generate a variety of thoughts about specific issues
- Development of ideas for solutions to relevant problems through transdisciplinary teams and project work
- Mentoring projects: proven mentors work alongside trainees (apprentices, students, etc.) as they tackle specific issues
- Initiatives that introduce youngsters to the use of wood as raw material and building material, as well as to activities and career paths in the fields of research, technology and innovation (RTI)

Innovation is the successful implementation of new ideas and inventions in the market

The Forest Fund's Wood Initiative aims to serve as a catalyst for the development of wood innovations through promotion and related activities like:

- Developing new technologies and product strategies for the sustainable use of wood as a raw material in the context of a bio-economy, as well as creating and combining new knowledge.
- A greater reliance on digital technology throughout the wood-based value chain, e.g. in the manufacturing process and in the fields of architecture, planning and product design.
- Encouragement and development of numerous forums for the exchange of concepts and solutions between seasoned professionals and budding wood enthusiasts.

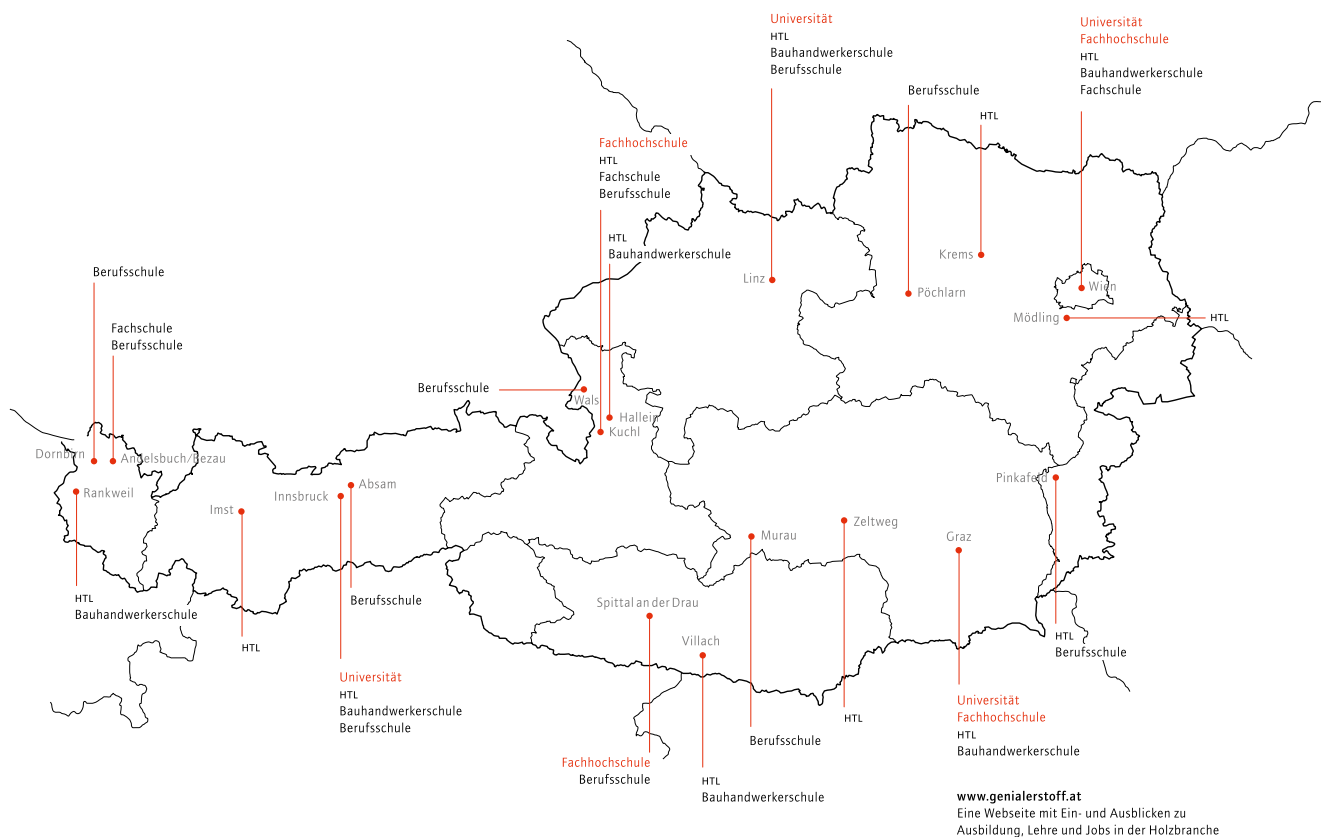


6.4 Training

Encouraging education and training is a crucial element of success. The Austrian Wood Initiative focuses on the transfer of subject-specific information starting from the elementary through the secondary to the higher levels of education in this context (“Bildungs-LAB Wald&Holz”). Support is provided for contemporary and target audience-focused approaches to gathering, disseminating and using knowledge on the subject of wood. Cross-thematic initiatives in the areas of funding programmes, university courses and internships are among the other tangible measures. Additionally, programmes for dissertation and research programmes as well as endowed professorships are sponsored.

„An important subject in kindergarten and schools is the contribution of sustainable resources for climate protection. Therefore, having access to unbiased educational resources on forests and wood is particularly beneficial for educators. In the end, the creation and provision of age-appropriate and useful educational resources add value for society as a whole.“ – Dr.ⁱⁿ Elgrid Messner, Rector of the University College of Teacher Education Styria

Fig 6:
Training centers in Austria around the topic “Building with wood”



6.4.1 Tertiary sector

- Endowed professorships with the focus on: design and construction with wood in an urban context, sustainable construction with wood and other bio-based building materials (see chapter 7.2) and timber architecture and fabrication.
- Support for various Austrian university teaching and knowledge centres with a focus on wood
- Assistance in hiring researchers and educators at Austrian universities and universities of applied sciences in order to fill professional shortfalls in the fields of architecture, timber construction and wood use
- Establishment of a Doctoral School (see chapter 7.3)
- Assistance for outstanding young researchers at universities and universities of applied sciences
- Expanding and collaborating on training and education in the field of wood

6.4.2 Secondary sector

- Creating test and development environments for educational material, alignment of educational content and digitalization of educational content
- Developing digital and interactive learning materials that follow the principles of the training platform, blended learning, online training, instructional videos as well as knowledge checks
- Coordinating and updating educational materials on the use of and construction with wood
- Assistance in funding student and apprentice internships at cutting-edge businesses and research institutions
- Expanding and collaborating on training and education in the field of wood

6.4.3 Primary sector

- Support for the development of teaching and learning resources in analogue and digital formats that are, like an educational umbrella, as uniform as possible throughout Austria and consistent across all educational levels.
- Strengthening of additional training initiatives for educators on topics related to forests and wood
- Education and raising awareness of sustainable forest management and wood use with the purpose of reducing greenhouse gas emissions

Short Facts “Training opportunities around wood in Austria”

- 12 types of apprenticeships
- 4 vocational school programmes
- 7 branches of secondary vocational schools
- 6 colleges (training)
- Various university of applied sciences and university courses with a focus on wood and timber construction

Further information is available at:

www.wald-in-oesterreich.at/ausbildungswege-in-bezug-auf-holz/

www.genialerstoff.at

„The personal dedication and knowledge of the companies and their staff are a major part of the high degree of competitiveness, inventive strength and considerable relevance of the Austrian forest-based sector on international markets. The most crucial prerequisite for remaining competitive in the future and maximizing the use of the raw material wood through innovation is high-quality training across all age groups. Transparency and trust between the market participants are created by knowledge.” – Johann Blinzer, Headmaster of the Timber Technology Centre Kuchl, Secondary Technical College and Technical Vocational School





6.5 Communication

The goal is to spread awareness of sustainable forest management and the wise use of wood in the context of a circular economy and climate protection through the use of various communication and public relations strategies.

The aim is to cultivate viewpoints, skills and attitudes that will help shape a sustainable society, taking into consideration resource conservation and the efficient material and energetic use of renewable raw materials.

6.5.1 Awareness raising and information

- Public relations efforts and media campaigns promoting the Austrian Wood Initiative's use of wood
- Increasing public awareness of sustainable forest management and the use of wood based on it, while taking into account the bioeconomy's increased use of wood products and the forest's ability to store more carbon and reduce emissions
- Exhibitions and public gathering areas on the subject of wood and forests
- Media productions (e.g., films, social-media clips, podcasts)
- Publications and articles

6.5.2 Events

- Participation in and support of trade fairs, information events and symposia
- Competitions (e.g., Wood Construction Award, Student Trophy, Hackathon)
- Austrian Climate Wood Days: building for people, regions and climate

6.5.3 Restructuring and support of the National Team Holzbau Austria

- Assistance in preparing fresh talent in timber building for international contests
- Promotion of equipment, team attire, public appearances and assistance at training sessions and contests

„Wood has quickly gained popularity as a sustainable and resource-efficient building material in recent years. Its application in multi-storey residential buildings, particularly in urban development, is becoming more and more significant. And for good reason timber construction sets the bar high for the general populace and, most importantly, the coming generations. The numerous possibilities of contemporary timber construction must be showcased, as well as the linkages between active forest management, climate protection and timber construction, in order to further enhance the use of wood.“ – Christina Simmel, Chief editor of the trade magazine Zuschnitt



6.6 Energy

Wood is still a significant source of biomass for energetic use. Austria's wood reserves are at an all-time high right now. The amount of timber in Austrian forests has grown by more than 40% since 1970. This has been achieved by the fact, that the Austrian forest produces more woody biomass than harvested. Utilizing biomass for energy decreases reliance on the importation of fossil resources. Utilizing domestic biomass in a decentralized manner is a progressive move that adds value to the community and guarantees jobs.

In light of this, the construction of research infrastructures for the products of gas, diesel as well as hydrogen from wood is the focus of this priority area. This action helps build suitable alternate outlets for the accumulated damaged and residual wood, among other things and makes a significant contribution to the energy self-sufficiency of agriculture and forestry. Agriculture and forestry could become the first economic sector with a fully renewable energy supply with the aid of research measures on the topic of "green gas and biofuels" if the project's findings are put into practice.

„The use of natural resources like sun, water, wind and of course, forests and wood, is the key to a future without global warming. This protects ecological diversity, ensures independence from coal, oil, natural gas or nuclear power and ensures that we and our children can live in an intact environment. The conversion of our energy source, such as the replacement of oil heating, depends heavily on the use of wood for energy. In the future, wood could be used to provide more liquid or gaseous energy sources in addition to solid fuels.” – Peter Traupmann, Managing Director Austrian Energy Agency

6.6.1 Research infrastructures

- Research and development for the production and use of gas (SNG), hydrogen and FT fuels from sustainable biomass and biogenic waste products from agriculture and forestry as a contribution to the decarbonization of the energy system and economic system
- Acquisition, construction and cooperative use of research infrastructures for the production of diesel using the Fischer-Tropsch process, gas as well as hydrogen from biomass from agriculture and forestry for basic research and application-oriented research by universities, research institutions and companies.
- Gas generation using Dual Fluidized Bed (DFB) gas generation technology
- Preparation of a concrete operating concept with a longer-term planning horizon

6.6.2 Research projects

- Further development and demonstration of CO₂ as a gasification medium
- Development, optimization and demonstration of technologies with O₂-/H₂O-enrichment
- Optimization of carbon conversion efficiency
- Optimization and demonstration of existing wood gasification technologies, especially with regard to dealing with fluctuating fuel qualities.
- (Further) development, optimization and demonstration of the material use of charcoal (fixed-bed gasification).
- Characterization and standardization of FT fuels (engine bench test and dry tests)
- Development and optimization of different process engineering concepts for the separation of H₂ from product gas
- Gas fermentation and pyrolysis
- Further development, optimization and demonstration of various alcohol syntheses
- Sustainability assessment of biomass for energy production (ecological, social and economic effects)

Short Facts “Energy”

- Share of renewable energies in the gross final consumption of energy: 33.6%¹⁴
- Share of bioenergy (energy from solid, liquid or gaseous biomass) in renewable energy sources: 53%¹⁵
- Share of wood in renewable energy sources: 43%¹⁶
- Share of wood energy in bioenergy: 81%¹⁶

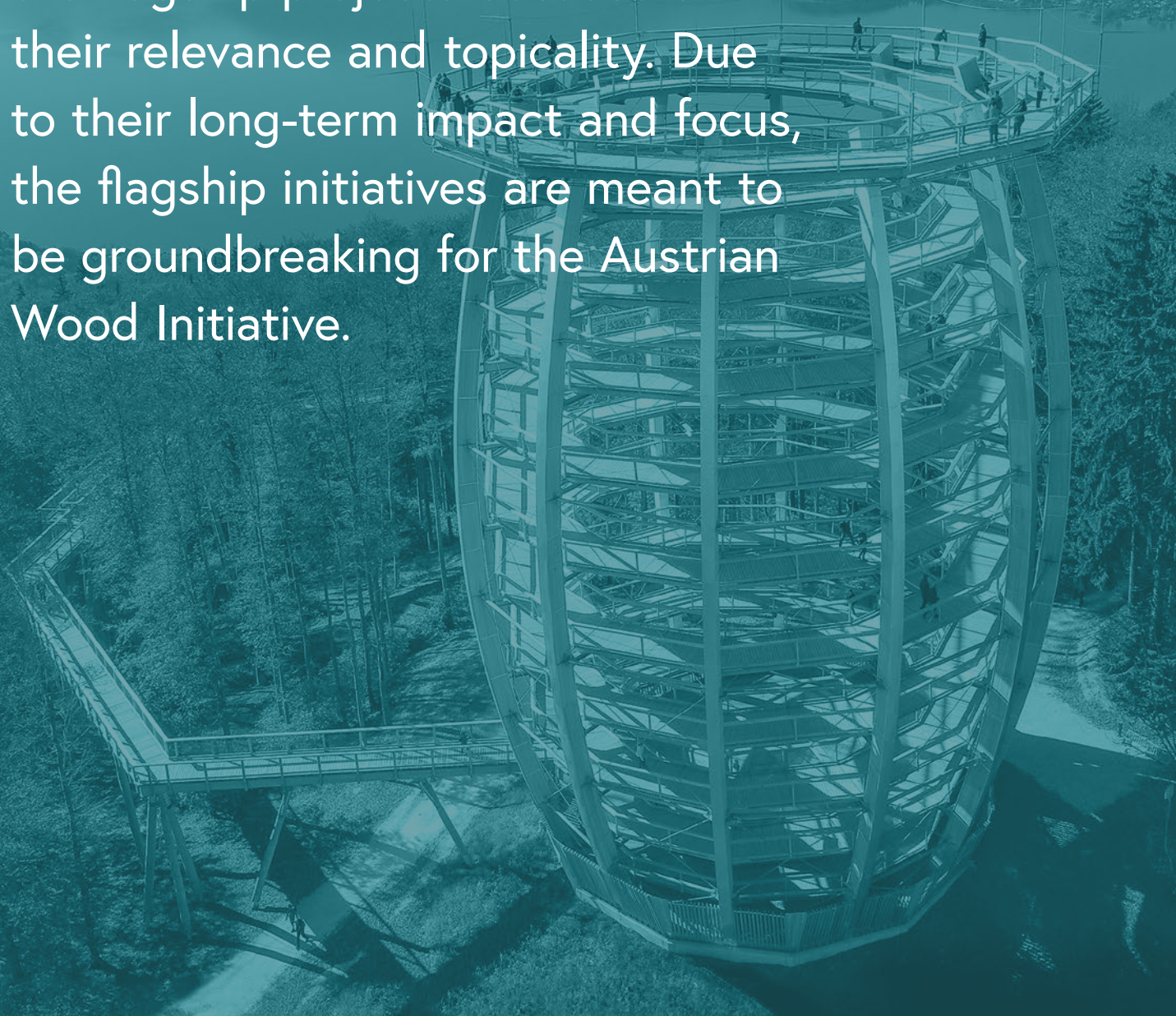
14 BMK 2021, Energy in Austria

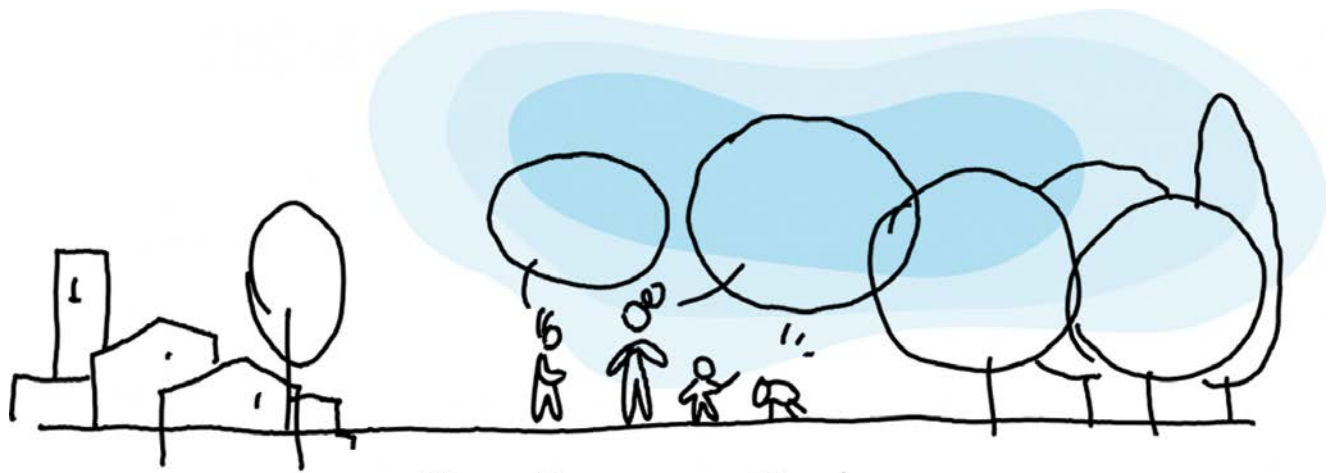
15 Austrian Biomass Association Bioenergy Baseline data 2021; Statistics Austria, Energy balance 2019

7

Flagship projects

The Federal Ministry of Agriculture, Forestry, Regions and Water Management / (BML) particularly supports the flagship projects because of their relevance and topicality. Due to their long-term impact and focus, the flagship initiatives are meant to be groundbreaking for the Austrian Wood Initiative.





New European Bauhaus beautiful | sustainable | together

Ursula von der Leyen, President of the European Commission, has urged Member States and civil society to take part in the creation of a new European Bauhaus. The new European Bauhaus is an innovative, interdisciplinary project with the goal of establishing a meeting place where future lifestyles are fashioned at the intersections of art, culture, social inclusion, science and technology. This interdisciplinary effort aims to create a space for experimentation and thought that serves as a link between science and technology as well as art and culture. The new European Bauhaus is intended to develop into a creative and interdisciplinary movement, similar to the historical Bauhaus movement. The objective is to jointly create and implement concepts for a sustainable, inclusive, intellectually and emotionally stimulating future.

The Austrian Wood Initiative's flagship projects adopt the Bauhaus aesthetic and in this way, they can be considered as the forest-based industry's contribution to the creation of the new European Bauhaus.

„The opportunity for a dramatic shift in European objectives in terms of building culture is presented by the New European Bauhaus, which was initiated by European Commission President Ursula von der Leyen. Holistic thinking, cross-cutting and multidisciplinary effort, as well as participation from the general public and all users, are prerequisites for this. Building materials that adhere to the principles of sustainability and the circular economy, with wood playing a key role, are of particular importance. We are all urged to become involved and actively participate in the creation of the New European Bauhaus, which is currently taking shape.“ – Georg Pendl, President, Architects Council of Europe

7.1 Contribution to the European Bauhaus: Exhibition building – building, designing and living with wood

The demonstration building is designed to provide a location and setting for participative, intersectoral and multidisciplinary research as well as a venue to discuss the difficulties associated with bio-based and sustainable social and economic systems. The goal is to create a wooden Bauhaus exhibition building that embodies the phrase “building, designing and living with wood.”

Fields of implementation

- The aim is to develop and illustrate perspectives for a working, living and housing culture in rural and urban areas where wood plays a significant role as a fundamental building material.
- Investigating, testing, further developing and assessing innovative ecological and climate-neutral building materials, supplies and technologies in practical settings.
- Realization of resource and energy efficiency as well as consideration of the circular economy’s tenets in relation to ecosystems, land use patterns, architectural styles and art and design.
- An analysis of how humans are affected by nature, the environment, landscape, architecture and design, as well as how these elements are incorporated into the working, living and residential environments.
- Building with and for nature, while taking into account culture, art and community.
- The new European Bauhaus will have a physical and digital meeting space as well as a knowledge centre for the interdisciplinary development of approaches to solutions in several topic areas (e. g., modular, adaptable and mobile housing solutions, products and lifestyle, legislative processes, educational concepts)

7.2 Contribution to the European Bauhaus: Endowed professorship – sustainable building with wood and other bio-based building materials

The creation of endowed professorships aims to advance the vital field of timber construction research and Austria’s position as a hub for innovation. Endowed professorships provide universities with the necessary space to market themselves, expand into new fields of study and respond to emerging trends. Long-term gains come from the sustainable development of human potential in subject areas that are strategically important to businesses, research institutions and society overall. An endowed professorship is a powerful image-builder for businesses and universities alike.

The endowed professorship “Sustainable Building with Wood and Other Bio-Based Building Materials” (New European Bauhaus) focuses primarily on the following areas:

- Sustainable building, design and aspirations for an urban and rural working and living culture in the spirit of the new European Bauhaus
- Design ideas for environmentally friendly and space-efficient building (redensification, construction gaps, soil sealing, etc.), along with the creation and assessment of pertinent characteristics (ecological footprint)
- Realization of resource and energy efficiency, as well as factoring in the circular economy’s principles (circular building with renewable raw materials, use and reuse, cradle to cradle), as well as the reduction of GHG emissions to promote climate neutrality, in relation to architecture, structural planning, art and design
- An examination of how bio-based construction methods, materials and designs affect people’s health, performance and general well-being in their working and living environments
- The development of interdisciplinary solutions for the various subjects of the new European Bauhaus
- Research, testing, further development and evaluation of new ecological and climate-neutral materials, construction materials and building technologies
- In all of these situations, including the operation of buildings, digitalization elements, modelling and simulation must be taken into consideration
- Creation of cutting-edge ideas for wood-based products and technology that promote climate preservation and the circular economy, as well as technical solutions and services that support the shift to renewable energy sources
- Innovative ways to use wood and hybrid materials for fundamental building physics issues in the construction industry (sound insulation, thermal insulation, cooling, fire protection)
- Hybrid materials with wood that are resource-efficient for use in construction and other fields of application (engineered wood products, bio-composites, etc.)
- Utilization ideas for novel and intelligent composite materials (smart materials) used in conjunction with wood for specific application sectors
- New European Bauhaus-inspired interdisciplinary and intersectoral research and education in the realm of sustainable construction and design (combining science, technology, art and culture)



7.3 Contribution to the European Bauhaus: Doctoral School – Creating a sustainable future with wood

Research projects in the spirit of the new European Bauhaus are to be conducted in collaboration with relevant scientific partners (universities, universities of applied sciences, competence centres, etc.) and businesses under the slogan “Creating a Sustainable Future with Wood.” The programme discusses how science, economy, society, politics, culture, art, education and the environment can interact.

The following objectives are the focus of the programme:

- Strengthening and broadening current partnerships between research, industry, commerce, society, politics, culture, the arts, education and the environment along the wood-based value chain.
- Prolonged assurance of the availability of quality, demand-driven qualified experts for a resilient bioeconomy.
- Making it easier for people outside the science system to enter professions in research through the established business-oriented training programme. Graduates from universities should gain fresh insights as a result of this.
- Fostering interdisciplinary and intersectoral collaboration across various scientific disciplines and industry sectors
- Disseminating research findings to the scientific community through high-calibre publications in SCI journals, presentations at international conferences, research visits to partner universities abroad, etc.
- Exploitation by the business sector: innovations and procedures based on research that take into consideration the findings of (cooperative) research as well as widely read scientific publications or presentations
- Support for participating students includes person development measures, career preparation, networking and training opportunities within the consortium both domestically and abroad, as well as employment opportunities with Austrian businesses or non-university research institutions with commercial activity.

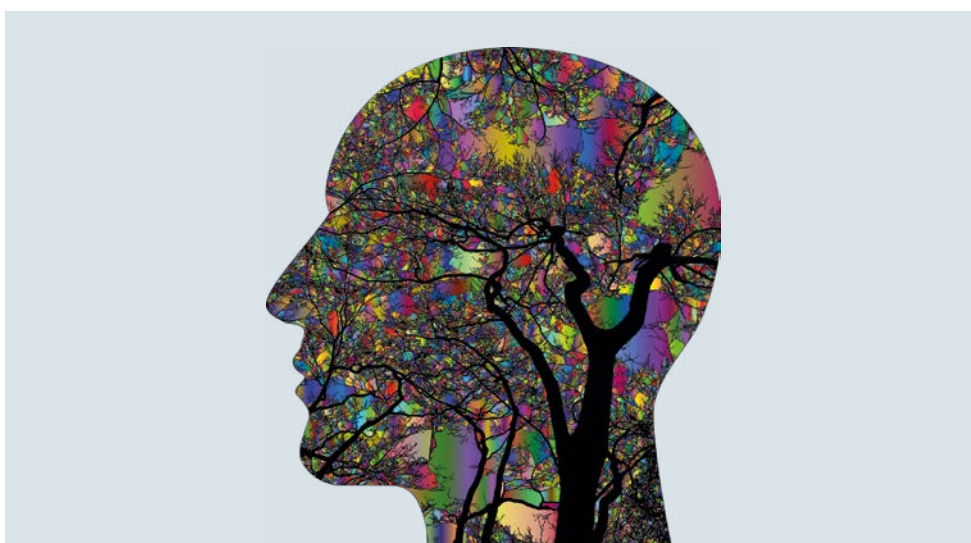
7.4 woodCircle – Think Tank Wood

Prioritization and coordination can only be accomplished with extensive communication. Under the guiding principle that “Knowledge becomes more when it is shared,” a Think Tank Wood will be established to strengthen, position and plan all the Wood Initiative’s activities.

This serves as a forum for the sharing of information and the management of various initiatives pertaining to the material and energetic use of wood. Experts from a variety of fields, including politics, administration, commerce, research and science discuss existing and upcoming challenges in the use of wood.

The following demands and goals are pursued:

- A place where fresh ideas may be discussed, where people can connect and where recommendations for action can be developed
- Reducing barriers and promoting competitive thinking along the wood-based value chain
- Making use of synergies and avoiding duplication
- Coordinating policies and projects in the area of creative wood use
- Innovative cross-sectoral advancements driven by bioeconomy and the circular economy
- Dissemination of current information on the production and use of wood products for material and energetic purposes
- Identification of future trends and creation of ideas for strategic priorities and political debate



8

Information on procedures and contacts

The BML, the FFG and the KPC issue thematically specific “calls” that are used to implement the various measures. The respective websites contain information about the individual calls.

Contact & Information

Questions regarding the Wood Initiative

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

Business area: Wood-based Value Chain

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Information on the Austrian Forest Fund

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

www.waldfonds.at

Calls

Governance and Communication

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

www.waldfonds.at

CO₂-bonus – Timber Construction

Kommunalkredit Public Consulting GmbH

www.umweltfoerderung.at/waldfonds

Innovation, Education, Energy

Austrian Research Promotion Agency

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