OPENING EVENT
Conditions, solutions and potentials for housing construction in wood
Moderation: Christoph Starck, LIGNUM – Holzwirtschaft Switzerland, Zurich (SUI)
Europe’s urban areas are growing, in some cases rapidly. For example, in the economic hub of Zurich, after decades of people leaving the city, today as many people live there as in the boom times of the late 1950s. But the new attractiveness of European centers also has its downsides: there is often a lack of rapidly available, high-quality and at the same time affordable housing for the economically less well-established. Wood construction offers a first-class solution. Thanks to prefabrication on an industrial scale and advanced BIM expertise, construction time can be significantly reduced for technically mature, sustainable, energy-efficient and climate-friendly new buildings. Wood construction is ideally suited for building within existing inventory. Additionally, the renewable and sustainably used resource wood is locally available throughout Europe.

08.15 Reception of attendees
Coffee sponsored by Sihga

08.55 Welcome
Melanie Brunner, LIGNUM – Holzwirtschaft Switzerland, Zurich (SUI)

09.00 Charta Holz 2.0 – the political way of using wood in construction
Dr. Denny Ohnesorge, Deutscher Holzwirtschaftsrat (DHWR), Berlin (GER)

09.20 Market potential for serial and modular construction
Marcel Dresse, B+L Marktdaten, Bonn (GER)

09.50 The European construction industry in a macroeconomic context
Prof. Dr. Jan-Egbert Sturm, KOF Konjunkturforschungsstelle der ETH Zurich, Zurich (SUI)

10.30 Coffee break
Coffee sponsored by Metsä Wood

11.00 Rise of Mass Timber construction in UK and outlook
Nick Milestone, Chairman TRADA (The Timber Research and Development Association), High Wycombe (UK)

11.30 Wood – a pleasing building material
Stefan Schautes, HOWOGE Wohnungsbaugesellschaft, Berlin (GER)

12.00 Neckarbogen in Heilbronn – City of the future
Wolf-Dieter Sprenger, Stadtsiedlung Heilbronn, Heilbronn (GER)

12.30 Discussion with the speakers of the morning

12.40 – 13.45 Lunch break
Coffee sponsored by Dynea
### Pre-conference seminar I

**Architecture Forum**  
Organized by the Technical University Munich in collaboration with “aut. architektur und tirol” Innsbruck (AUT)

**Simple, material-adapted and innovative**  
Moderation: Prof. Hermann Kaufmann, Technical University Munich, Munich (GER)  
The first part of this seminar deals with the topic “Build Simple” which is attracting increasing interest due to the mechanization of our buildings. Two projects are presented: the research houses in Bad Aibling and the agricultural center Salez in Switzerland. The second part is dedicated to the topic of wooden architecture and provides an insight into the fascinating work of the world-famous architect Bijoy Jain, Studio Mumbai, and his traditional craft-based strategies.

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<td>13.15</td>
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<td>13.45</td>
<td>Welcome</td>
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<tr>
<td>13.50</td>
<td>Forschung.Einfach.Bauen – Three research houses in Bad Aibling</td>
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<td></td>
<td>Prof. Florian Nagler, Technical University Munich, Munich (GER)</td>
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<td>14.20</td>
<td>Agricultural center Salez</td>
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<td></td>
<td>Andy Senn, Andy Senn Architektur, St. Gallen (SUI)</td>
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<tr>
<td>14.50</td>
<td>Discussion “Build simple”</td>
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<td>15.10</td>
<td>Two pioneering structures from Norway</td>
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<td>Reinhard Kropf, Helen &amp; Hard, Stavanger (NOR)</td>
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<td>15.50</td>
<td>Coffee break in the exhibition area</td>
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<td>Coffee sponsored by Lignatur</td>
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<tr>
<td>16.20</td>
<td>Idea and material</td>
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<td></td>
<td>Prof. Felix Waechter, Waechter + Waechter Architekten, Darmstadt (GER)</td>
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<tr>
<td>17.00</td>
<td>Bijoy Jain, Studio Mumbai Architects, Mumbai (India)</td>
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<td></td>
<td>Special Guest</td>
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<td>18.00</td>
<td>Discussion</td>
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<td>Aperitif in the exhibition hall</td>
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<td>Aperitif sponsored by SFS intec</td>
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<td>19.15</td>
<td>Dinner – delicacies from the Alpine countries</td>
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### Pre-conference seminar II

**Prefabricated housing forum**  
Organized by the German Federal Society for Prefabricated Housing (BDF), Bad Honnef (GER) and the Austrian Society for Prefabricated Housing (ÖFV), Vienna (AUT)

**Digitization “Production | BIM and Industrie 4.0”**  
Moderation: Georg Lange, Bundesverband Deutscher Fertigbau (BDF), Bad Honnef (GER) and Christian Muhammer, Österreichischer Fertighausverband (ÖFV), Vienna (AUT)  

Demands on companies, employees and the overall value chain are becoming more complex as a result of digitization. Information is needed that can be used across the board based on uniform data structures, which in turn make it possible to share information between the different trades and disciplines. In addition, the legal possibilities and limits of BIM and the personnel requirements of the new occupational field of the BIM coordinator must be considered. Digitization also offers opportunities through the combination of different prefabrication systems.

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<td>Welcome</td>
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<tr>
<td>14.00</td>
<td>Legal possibilities and limits of BIM</td>
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<td></td>
<td>Prof. Peter Matthias Astner, Moller Rechtsanwälte /</td>
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<td></td>
<td>Technical University Rosenheim, Rosenheim (GER)</td>
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<td>14.35</td>
<td>Material data in the context of harmonized product standards</td>
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<td></td>
<td>Christoph Eichler, ODE office for digital engineering, Vienna (AUT)</td>
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<td>15.10</td>
<td>The BIM coordinator</td>
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<td>Marc Pancera, Itten + Brechbühl, Basel (SUI)</td>
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<td>15.45</td>
<td>Coffee break in the exhibition area</td>
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<td>Coffee sponsored by Stora Enso Timber Deutschland</td>
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<tr>
<td>16.15</td>
<td>Industry 4.0 enabled: From Ego to Lego! Opportunities for the combination of different prefabrication systems</td>
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<td></td>
<td>Bernd Hofferl, proHolz Austria, Vienna (AUT)</td>
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<td>16.50</td>
<td>HVAC planning in practice in conjunction with BIM</td>
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<td></td>
<td>Pierre Hirschmann and Daniel Eckstein, WeberHaus, Rheinau-Linx (GER)</td>
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<tr>
<td>17.25</td>
<td>From planning to execution: An overview of BIM in timber construction</td>
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<td></td>
<td>Philipp Zumbrunnen, Eurban, London (UK)</td>
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<td>18.00</td>
<td>Discussion</td>
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<td>Aperitif in the exhibition hall</td>
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<td>Aperitif sponsored by SFS intec</td>
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<td>19.15</td>
<td>Dinner – delicacies from the Alpine countries</td>
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Starting 19.15 Dinner – delicacies from the Alpine countries
### Pre-conference seminar III
**Wooden house construction forum**
Organized by the European Federation of Timber Construction, Berlin (GER)

**Shaping the digital company transformation:**
*identifying challenges, taking advantage of opportunities*

*Moderation: Hans Rupli, HANS RUPLI GmbH, Zurich (SUI)*

What opportunities and challenges arise with the digitization of my company? What impact does digitalization have on my corporate and leadership culture? How can I attract and retain new customers, open up attractive markets, simplify business processes, and maintain networks? These and other questions are answered in this seminar.

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<td>13.45</td>
<td>Welcome</td>
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<tr>
<td></td>
<td>Peter Aicher, Präsident Timber Constraction Europe, Berlin (GER)</td>
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<td>13.55</td>
<td>Digitization and its influence on the corporate and management culture</td>
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<td>in the craft business</td>
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<td></td>
<td>Prof. Dr. Armin Trost, Hochschule Furtwangen, Villingen-Schwenningen (GER)</td>
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<td>14.00</td>
<td>The Sharing Economy – a growth market with great potential</td>
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<td>Tanja Eschberger, LEAD Innovation, Vienna (AUT)</td>
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<td>15.15</td>
<td>Brand management in a digital world</td>
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<td>Dr. Judith Meyer, Brand Trust, Nürnberg (GER)</td>
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<td>15.50</td>
<td>Coffee break in the exhibition area</td>
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<td>Coffee sponsored by Lignatur</td>
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<td>16.20</td>
<td>Digital transformation: Issues where the shoe pinches</td>
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<td>Norbert Winterberg, Bern University of Applied Sciences, Biel/Bienne (SUI)</td>
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<td>16.50</td>
<td><em>Panel discussion: Digitization in the craft business – success factor or myth?</em></td>
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<td></td>
<td>Peter Aicher, Jörg Eugster, Tanja Eschberger, Dr. Judith Meyer, Norbert Winterberg</td>
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<td>17.20</td>
<td>“Rethinking in mind” – A practical report on challenges and experiences in the digitalisation of craft enterprises</td>
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<td>Martin Goppel, Berlin (GER)</td>
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<td>18.30</td>
<td>Aperitif in the exhibition hall</td>
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<td>Aperitif sponsored by SFS intec</td>
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Starting 19.15 Dinner – delicacies from the Alpine countries

### Pre-conference seminar IV
**Connection technology**
Organized by Aalto University Helsinki, Helsinki (FIN)

**Current trends in connection technology**

*Moderation: Prof. Dr. Gerhard Fink, Aalto University Helsinki, Helsinki (FIN)*

In the last decades, timber engineering has developed rapidly. Wide-span arenas and bridges as well as multi-storey residential and office buildings made of wood are now common. High-quality and reliable connections are the basic requirement for these structures. The use of hardwood timber products as well as new and at the same time more demanding applications of wood as building material require a continuous development in the field of connector technology as well as new and innovative solutions.

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<tr>
<td>13.45</td>
<td>Welcome</td>
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<tr>
<td></td>
<td>Prof. Dr. Gerhard Fink, Aalto University, Helsinki (FIN)</td>
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<tr>
<td>14.00</td>
<td>Areal mechanical fasteners</td>
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<td>Dr. Roland Moderebner, Universität Innsbruck, Innsbruck (AUT)</td>
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<td>14.35</td>
<td>Eurocode 5:2022 – Introduction to the new section “Reinforcements”</td>
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<td>with a focus on transmission of perpendicular to grain forces</td>
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<td>Dr. Philipp Diettsch, Technical University Munich, Munich (GER)</td>
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<td>15.10</td>
<td>Dowel joints and glued-in rods in beech BSH</td>
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<td>Prof. Andreas Müller and Sebastian Pascal Heubach, Bern University of Applied Sciences, Biel/Bienne (SUI)</td>
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<td>15.45</td>
<td>Coffee break in the exhibition area</td>
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<td>Coffee sponsored by Stora Enso Timber Deutschland</td>
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<td>16.15</td>
<td>Structural performance of screws in beech wood</td>
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<td>Prof. Dr. Robert Jockwer, Chalmers University of Technology, Gothenburg (SWE)</td>
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<td>16.50</td>
<td>Problems and solutions for screwed joints in hardwood products</td>
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<td>Prof. Dr. Reinhard Brandner, Graz University of Technologie, Graz (AUT)</td>
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<td>17.25</td>
<td>Self-tapping wood screws: Screw-in torque and withdrawal resistance in relation to installation imperfections</td>
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<td>Dr. Matthias Frese, Karlsruhe Institut für Technologie, Karlsruhe (GER)</td>
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<td>18.00</td>
<td>Discussion</td>
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Starting 19.15 Dinner – delicacies from the Alpine countries
WOOD ENVIRONMENT – Like other industries, the wood industry depends on the political and economic framework in which it operates. Therefore, it is important to consider the relevant national and international political trends and economic developments in the context of an international conference.

07.45 Reception of attendees
Welcome coffee sponsored by tectofix-Bauer Technik

08.25 Welcome by the Organizer
Prof. Dr. h.c. Heinrich Köster, Technical University Rosenheim, Rosenheim (GER)

Build on the proven to shape the future
Moderation: Prof. Dr. h.c. Heinrich Köster, Technical University Rosenheim, Rosenheim (GER)
Without history, there is no future in the present. Building with wood was a dominant construction method, determined by regionality and resources (man and forest). Much was lost or ignored in the last century. Resource shortages, climate change and digitization once again opened the view to the old, tried and tested and helped the wood industry to blossom during the last two decades. The “International Timber Construction Forum” helped write this history and shape the present of wood construction.

08.30 Welcome by the city and the region
Christoph Walser, President of the Tyrolean Chamber of Commerce
Georg Willi, Mayor of the city of Innsbruck
OR Josef Geisler, Deputy Governor of the Province of Tyrol

08.45 25 years International Timber Construction Forum (IHF)
Prof. Dr. h.c. Heinrich Köster and Prof. Uwe Germerott, FORUM HOLZBAU

09.00 Challenge Future
Matthias Horx, Zukunftsinstitut, Vienna (GER/AUT)

09.45 Discussion

09.50 Coffee break in the exhibition area
Coffee sponsored by Jowat

TIMBER STRUCTURES – High performance timber structures occupy a special place in the construction industry and the general public. They inspire confidence in the performance of wood as a building material and document the wide range of its use.

Large-volume buildings
Moderation: Ass. Prof. Dr. Tobias Schauerte, Linneus University, Växjö (SWE)
Whether land or city, multi-storey and large-volume timber construction has gained recognition and acceptance worldwide for societal and ecological reasons. In addition to the well-known lighthouse projects in the area of “high-rise timber construction”, there are also outstanding residential buildings with a signal effect, because of their sheer size.

10.20 Quartier Weissensee: Berlin’s largest wood construction
Christoph Deimel, Deimel Oelschlaeger Architekten, Stuttgart (GER)

10.50 House “Crocodile”, Lokstadt in Winterthur: 8 storeys in wood – (almost) without concrete and steel
Andreas Burgherr, Timbatic, Zurich (SUI)

11.20 HoHo– Vienna – lighthouse project for hybrid wood construction
Dr. Richard Waschitz, Waschitz Group, Vienna (AUT)

11.50 Cultural center and hotel complex Skellefteå | Sweden – The next step in Europe
Florian Kosche, DIFK – Dipl.-Ing. Florian Kosche AS, Oslo (NOR)

12.20 Discussion

12.30 Lunch in the Congress Centrum Innsbruck
Coffee sponsored by Isofloc

Timber construction in transition – creating capacities with new approaches
Moderation: Prof. Uwe Germerott, Bern University of Applied Sciences, Biel/Bienne (SUI)
Technological developments and the increasing digitization up to robotic production have significantly increased the market share of wood construction in the last years, particularly for multi-storey buildings. The lack of standardization and the restraints of time and cost frameworks are the main areas that require new approaches from planning to implementation.

14.00 The change in the European construction industry – Successful re-orientation in a dynamic environment
Christoph Weber, Horváth & Partners Management Consulting, Vienna (AUT)

14.30 Collaboration and creation of something big in wood
Heiko Seen, HU-Holzunion, Rotenburg (GER)

15.00 The Katerra story and the Silicon Valley
Robert Malczyk, Equilibrium Consulting/Katerra, Vancouver (CAN)

15.30 Discussion

15.40 Coffee break in the exhibition area
Coffee sponsored by Gutex

Office and hotel buildings with charisma
Moderation: Prof. Dr. Guido Wimmers, University of Northern British Columbia, Prince George (CAN)
The versatility of the building material wood is reflected in the international architecture. New joining techniques and material combinations create the templates for new applications. With a selection of realized projects of international importance, an overview is provided of the diverse possible uses of wood and wood-based materials in combination with other materials in modern building construction.

16.10 A building system for duplicable hotel buildings
Giovanni Spatti, Wood Beton SpA, Iseo (ITA)

16.40 Bjersted Financial Park, Stavanger
Mario Rando, Degree of Freedom Engineers, Oslo (NOR)

17.10 Office building of the Nexitix Ywood in Nice – And an overview of current large projects in France
Jean-Luc Sandoz, CBS-Lifteam, Paris (FRA)

17.40 55 Southbank Boulevard, Melbourne – Challenges of a 10 Storey Mass Timber Vertical Extension
Nathan Benbow, Vistek Structural Engineers, Melbourne (AUS)

18.10 Discussion

18.20 Coffee break in the exhibition area
Coffee sponsored by tectofix-Bauer Technik

TIMBER CONSTRUCTION DEVELOPMENT – The International Timber Construction Forum is a meeting place for innovative companies, product developers and researchers in the timber industry. With the block “Timber construction development”, the IHF offers an international platform to present the latest developments, solutions and research results, to exchange ideas with companies and to initiate new research projects.

Timber Engineering: Planning | Statics | Execution of complex free-form structures
Moderation: Dr. Simon Aicher, MPA Universität Stuttgart, Stuttgart (GER)
Partially and fully automated program-controlled production technologies are available in timber construction companies. Sophisticated design and visualization software tools are used in architectural offices, and powerful numerical simulation programs are now standard in structural design. However, the linking and feedback of architectural design, structural design, manufacturing detail plans, and then manufacturing and construction in (partial) robotic cyber-physical processes is just beginning. Ground breaking projects illustrate the potential, particularly enabled through new joining technologies.
BUGA Wood Pavilion:  
Freeform surface made of robotic zero-tolerance segments  
Prof. Achim Menges and Prof. Dr. Jan Knippers,  
Universität Stuttgart, Stuttgart (GER)  

New building Swatch Group:  
Constructing at the limit of the feasible –  
Experiences and solutions  
Franz Tschumperlin, SJB Kempter Fitz, Eschenbach (SUI)  

More than models – Digital workflows from design to installation  
Fabian Scheurer, Design-to-Production, Erlenbach (SUI)  

The model becomes reality – Challenges in production and assembly  
Richard Jussel, Blumer-Lehmann, Gossau (SUI)  

Discussion  

Lunch break in the Congress Centrum Innsbruck  
Coffee sponsored by Isolfooc  

Ribbed plates and box girders: high performance and material efficiency  
Moderation: Dr. Simon Aicher, MPA Universität Stuttgart, Stuttgart (GER)  

Monolithic members with rectangular cross sections are not resource efficient when exposed to bending stresses. In contrast, ribbed plates and box girders enable performance- and volume-optimized material and geometry combinations. The joining technologies of webs and flanges are decisive for economic efficiency. DIN 1052-10: 2012 defined (for the first time worldwide) the boundary conditions and design details of screw press bonds which in combination with self-tapping screws and suitable adhesives enable very efficient serial and individual production of rib connections. With the new version of DIN 1052, the dimensions, the manufacture and the use of glued components will expand decisively. The presented projects impressively prove this point.  

Visitor Center Ruhestein: Complex engineering meets challenging geography  
Simon Pfeffer and Karl-Heinz Roth, ZÜBLIN Timber, Aichach (GER)  

Sportcampus of the TUM with large canopy in wood  
Gordian Kley, merz kley partner, Dornbirn (AUT)  

Rulantica: A new water world in the Europapark Rust  
Samuel Blumer, sbblumer, Graz (AUT)  

Discussion  

Coffee break in the exhibition area  
Coffee sponsored by Gutex  

Revitalization and re-use of existing structures  
Moderation: Dr. Simon Aicher, MPA Universität Stuttgart, Stuttgart (GER)  

Urban densification, the conversion of existing industrial wastelands and the revitalization of neighborhoods with significantly increased living and housing values represent a central task for cities worldwide. Timber construction plays a key role. This results from the almost unlimited combinatoriality of wood with other materials and existing structures as a result of its low weight, fast construction times, implementation of compulsory sustainability concepts, and the feasibility of visionary formal languages. Doubts about this development are irrevocably excluded by the presented projects.  

Rebirth in wood: From an old abandoned production site to a modern technology center  
Albino Angeli, X-LAM Dolomiti, Castel Ivano (ITA)  

Bernapark: A closed factory becomes a visionary quarter  
Nik Stuber and Markus Steiner, Stuber & Cie, Schüpfen (SUI)  

L'aventure Nature & Découvertes: Old steel arches as supporting structure for a new head office  
Jean-Claude Baudin, Charpente Cénonome, Requeuil (FRA)  

Gare Maritime: Modern timber construction revives Europe's previously largest freight train yard  
Heinz Thunig, ZÜBLIN Timber, Aichach (GER)  

Discussion  

Coffee break in the exhibition area  
Coffee sponsored by tectofix-Bauer Technik  

MASTER COLLOQUIUM AT THE INTERNATIONAL WOOD-CONSTRUCTION-CONFERENCE  

The Master of Science in Wood Technology from Bern University of Applied Sciences and Rosenberg Technical University of Applied Sciences has initiated an international call for papers for master students to present their thesis with a topic related to the wood construction industry. Out of many very qualified submissions the following students were chosen to present their highly relevant findings at this first Master Colloquium in Innsbruck.  

**Block I: Timber construction in the residential environment**  
Moderation: Christa Gertiser, Berner University of Applied Sciences  

Donaukanal 61 | Wood and the Public in the City  
Sebastian Rapposch, Graz University of Technology  

Placemaking: A Case Study of Minimal-Impact Building in the Great Bear Rainforest  
Gordon Clayton, Rosenheim Technical University of Applied Sciences  

Vibrations in residential timber floors: A comparison between the current and the revised Eurocode 5  
Whokko Schirén and Trixie Swahn, Linnaeus University  

Experimental full-scale testing of a multistory timber frame building concerning dynamic properties  
Urs Oberbach, Berner University of Applied Sciences  

Coffee break  

Coffee sponsored by Gutex  

**Block II: Design models and experimental testing for the use of innovative wood-based materials**  
Moderation: Prof. Dr. Martin Illner, Rosenberg Technical University of Applied Sciences  

Study to design of two variants of a pedestrian and cyclist bridge in timber-composite design as a construction replacement option for the city of Koblenz  
Paul Dreifke, Technical University of Berlin  

Calculation model for adhesive-bonded timber-concrete composite elements  
Georg Erlinger, University of Applied Sciences Upper Austria  

Investigation of lateral torsional buckling of timber beams subjected to combined bending and axial compression  
Nico Koppel, University of Stuttgart  

Mechanical behaviour of beech glued laminated timber columns subjected to compression loading  
Monika Zeilhofer, Technical University Munich  

Coffee break  

Coffee sponsored by tectofix-Bauer Technik  

ab 20.00 Gala Dinner 25 Years IHF  
In the “historic hall B” on the exhibition grounds Innsbruck  
Coffee sponsored by SFS intec
TIMBER STRUCTURES – Wood structures are unique and different from other structures from an environmental point of view. As a natural and renewable resource, wood has qualities that are vital to our survival. If wood as a building material did not exist, we would have to invent it. Accordingly, all stakeholders in the construction industry are called upon to ensure that wood plays a greater role as a construction material than in the recent past.

Block A

Engineering Structures: Bridges | Towers | Platforms
Moderation: Prof. Volker Schiermeyer, Fachhochschule Bielefeld, Bielefeld (GER)
Timber construction not only allows for tall and industrial buildings, but also challenging structures can be implemented using predominantly wood as building material. Bridges and towers have always held a special appeal to planners and builders. Special structures require particular application of constructive wood protection knowledge and detailed, material-oriented planning.

08.30  Rock Tower Steinberg am See: Report on the construction of a 40m barrier-free wooden sphere
Kai Vahle, Hess Timber, Kleinheubach (GER)

09.00  Timber engineering art high above the treetops: Findings from decades of building wooden observation towers
Johannes Lederbauer, WIEHAG, Altheim (AUT)

09.30  TimberTower: Experience from design and operation of the first wind turbine with wooden tower
Prof. Dr. Mike Sieder and Carlo Schroeder, Technische Universität Braunschweig, Braunschweig (GER)

10.00  Coffee break
Coffee sponsored by Saint-Gobain Rigips

09.30  Cattle drive bridge at Bernried on Lake Starnberg
Bernhard Sailer, Tragwerksplanung Reiser, Munich (GER)

10.30  Glacier Sand Bridge: Glulam and Ultra-High Performance Fiber Reinforced Concrete
Marc-André Berchtold, Emch+Berger, Bern (SUI)

11.00  The Green Bridge at Thyrow: Planning and execution
Prof. Volker Schiermeyer, HSW Ingenieure, Bad Oeynhausen (GER)

12.00  Discussion

12.20  Coffee break
Coffee sponsored by Türmerleim

Block B

Arena construction: Newly Interpreted
Moderation: Prof. Michael Flach, Universität Innsbruck, Innsbruck (AUT)
Wide-span wooden arenas are realized with a variety of structural systems, characterized by material-saving and efficient solutions. From spatial trusses, over folded plate structures to grid shells, these structures are characterized by multiaxial loaded systems, elegance and slenderness.

08.30  Pyramidal folded plate structure for noble Swiss chocolate
Thomas Strahm, neue Holzbau, Lungern (SUI)

09.00  Folded plate structure made of cross laminated timber: Calculation and implementation
Prof. Dr. Yves Weinand, EPF Lausanne, Lausanne (SUI)

09.30  Outdoor ice skating rink in Samoens
Laurent Clère, Arborescence, Lyon (FRA)

10.00  Coffee break
Coffee sponsored by Saint-Gobain Rigips

10.30  Timber gridshell dome structures at the Taiyuan Botanical Garden (China)
Lucas Epp, StructureCraft, Vancouver (CAN)

11.00  Logistics in wood with Metro and Cargo as partners
Dr. Helmut Poppe, Poppe*Prehal Architekten, Steyr (AUT)

11.30  SWG Schraubenwerk Gaisbach – Beech LVL at its limits
Christoph Dünser, HK Architekten, Schwarzach (AUT)
Henning Ernst, SWG Engineering, Rülzheim (GER)

12.00  Discussion

12.20  Coffee break
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Block C

Future concepts for multi-storey wood construction
Moderation: Prof. Andreas Müller, Bern University of Applied Sciences, Biel/Bienne (SUI)
Multi-storey timber construction has been established worldwide with a large number of tall buildings with wood load-resisting systems in recent years. Forward-looking and final planning in timber construction avoids surprises in the construction process and leads to cost certainty. The experiences made in the process are consistently positive. More and more investors therefore rely on wood construction in this building class. While the realized buildings have different conceptual approaches as prototypes, there are currently clear tendencies for the future.

Concepts for multi-storey wood buildings
08.30 Practical experiences with respect to bracing concepts for 12-storey wooden high-rise buildings under consideration of wind and earthquake loads
Bernhard Gafner, ASPECT Structural Engineers, Vancouver (CAN)
09.00 The extension of the Steico headquarters
Stefan Rapp, Rapp Architekten, Ulm (GER)
09.30 Modular wooden high-rise buildings – a proven timber hybrid system with different structural realization
Thomas Wehrle, ERNE Holzbau, Laufenburg (SUI)
10.00 Coffee break
Coffee sponsored by Saint-Gobain Rigips
Multi-storey construction with room modules
10.30 Modules in cross laminated timber construction
Christian Kaufmann, Kaufmann Bausysteme, Reuthe (AUT)
11.00 Room modules in wood light construction – realized in 4 months
Max Renggli, Renggli, Sursee (SUI)
11.30 Comparison of modular construction methods in multi-storey wood construction
Konrad Merz, merz kley partner, Dornbirn, (AUT)
12.00 Discussion
12.20 Coffee break
Coffee sponsored by Türmerleim

Block D

Adventure Wood Research – a discussion forum
Moderation: Prof. Dr. Stefan Winter, TUM.wood, Munich (GER)
The block Adventure Research provides insights into the colorful world of wood research and beyond introducing the latest developments and contrarian positions.

Part 1: How much HVAC does a house need?
Presentations followed by a discussion forum
Prof. Thomas Auer, Technical University Munich & Transsolar Energietechnik, Stuttgart (GER)
Prof. Helmut Krapmeier, Bergische Universität Wuppertal, Wuppertal (GER)
Klaus Rohlffs, ip5, Karlsruhe (GER)
Approx. 50% of fossil fuels are consumed by the building sector. That amount can be significantly reduced, e.g. by an energy-efficient building envelope. However, on the one extreme there is a tendency for radical simplification, and on the other extreme, more and more technology, with more and more complex control concepts are applied. The compromise? Domestic engineering and control where it has proven successful. To quote Albert Einstein: “Everything should be made as simple as possible, but no simpler.”
10.00 Coffee break
Coffee sponsored by Saint-Gobain Rigips

Part 2: Fit for the future – re-thinking wood modification
Presentations followed by a discussion forum
Prof. Dr. Ingo Burgert, ETH Zurich & Empa Dübendorf (SUI)
Prof. Dr. Corat Zollfrank, Technical University Munich (GER)
Renewable resources are essential for sustainable development. Here, wood as future high-performance material plays a special role. Adverse wood properties such as the limited dimensional stability or combustibility can be significantly changed by modification. Targeted material modification also generates completely new properties such as creating specific optical effects or actuation properties for future high performance applications.
10.45 Coffee break
Coffee sponsored by Türmerleim
EPILOG

Timber construction: resource storage and recyclability
Moderation: Prof. Wolfgang Winter, Technische Universität Vienna, Vienna (AUT)
In the course of industrialization and the associated mechanical mass production and processing in the last century, re-use was more complex and less interesting in comparison to the "new". With the ever-increasing weighting of ecological balance and “gray energy” in the construction of a building, reusable components and materials are becoming increasingly of interest. However, acting and thinking in cycles is complex and requires new approaches and processes. For example, the constructive idea and the availability of the required material are mutually dependent and must be thought of from the beginning. Further, components must be accurately recorded and cataloged to support the increasing digitization in the construction industry.

12.50  Wood – a "circular" building material
Prof. Eike Roswag-Klinge, Natural Building Lab & Technical University of Berlin, Berlin (GER)
Andrea Klinge, ZRS Architekten Ingenieure, Berlin (GER)

13.20  Nothing is lost, nothing is created, everything is transformede
Jacques Anglade, Anglade Structure Bois & Atelier Nao, Arles (FRA)

13.50  Cradle to Cradle: Designing and constructing with wood: experiences, expectations, visions
Jörg Finkbeiner, Partner and Partner Architekten, Berlin (GER)

14.20  Discussion and final words

14.40  Lunch in the exhibition area
Coffee sponsored by Norbord

15.30  End of IHF 2019

Apart from gaining knowledge from the formal sessions, participants have the opportunity to learn about the latest developments and innovations in wood construction in the parallel trade show, where the sponsors and other companies are presenting their products. Take advantage of the breaks to get an overview, to socialize and to deepen existing contacts.

The organizers, sponsors and exhibitors wish you an interesting and enjoyable 25th International Wood Construction Conference IHF 2019.

Place of the Conference
Congress Innsbruck, Rennweg 3, 6020 Innsbruck, Austria

Partnerhotels
www.forum-holzbau.com/IHF

Contact during the event
Simone Burri
T +41 79 448 30 07

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Closing date for registration November 25 2019

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