

27<sup>th</sup> International Wood Construction Conference (IHF) 29<sup>th</sup> of November – 1<sup>st</sup> of December 2023 Innsbruck, Congress Center

Practical experience – Practical application



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# 27<sup>th</sup> International Wood Construction Conference (IHF) 29 November – 1<sup>st</sup> December 2023 Innsbruck, Congress Centrum

Practical experience - Practical application

The International Wood Construction Conference (IHF2023) provides architects, engineers and builders with an opportunity to report on experiences, processes and goals related to wood structures and construction. At the same time, the conference provides an opportunity for architects, building officials, builders, craftspeople, practitioners and educators to learn about the latest developments and to exchange experiences.

#### Simultaneous translation

The presentations will be held in German or English and will be translated simultaneously.

# Wednesday, November 29 2023

#### **OPENING EVENT**

12.30

12.45

Discussion

# Timber construction for the demanding real estate and housing industry

Moderation: Sandra Burlet, Lignum – Holzwirtschaft Schweiz, Zurich (SUI)

The general climate policy situation is causing a change in the values of investors in both the HT Ollowitzerland: with a view to the sales value Octobrologics and the value retention of existing portfolios, sustainability will increase from a soft factor to a hard criterion. Surveys of residential and office buildings in Switzerland show that timber construction is not only ecologically superior to solid construction, but can also keep up economically.

00114 0011	on action, but can also help up economically.
08.15	Reception of attendees Coffee sponsored by Dynea
08.55	Welcome Sandra Burlet, Lignum – Holzwirtschaft Schweiz, Zurich (SUI)
09.00	Building climate-friendly and affordable – A comparison between Switzerland, Germany, Austria and France Dr. Julia Selberherr, Wüest Partner, Zurich (SUI)
09.30	CO <sub>2</sub> potentials and decision bases in early construction phases Hanns-Jochen Weyland, Störmer Murphy and Partners, Hamburg (GER)
10.00	Low-tech and circular timber construction and its ecological consequences  Prof. Eike Roswag-Klinge, Natural Building Lab, Technische Universität Berlin, Berlin (GER)
10.30	Coffee break Coffee sponsored by Dynea
11.00	Sustainable planning and building – only together Caroline Palfy, LOUD 4 PLANET, Vienna (AUT)
11.30	New ways of collaboration – from project development to implementation Stefan Höher, Bauwens, Cologne (GER) Johannes Lederbauer, Wiehag, Altheim (AUT)
12.00	Serial-modular-affordable – How we can master the challenges in housing construction  Robert Decker, Robert Decker Immobilien, Dorfen (GER)

- 13.50 Lunch break - Coffee sponsored by Dynea

# Wednesday, November 29 2023

#### Pre-conference seminar I

#### **Architecture**

Organized by the Technical University Munich (GER) in collaboration with «aut. architektur und tirol», Innsbruck (AUT)

#### Architectural quality and sustainability

Moderation: Prof. Hermann Kaufmann, HK Architekten, Schwarzach (AUT)

Architectural quality is a crucial criterion that determines the longevity and thus the suscinct life Schling. Unfortunately, those responsible for a ect 2011 are increasingly tending to lose sight of this criterion a fatal development. What good architecture can achieve is again the main theme of this proloque.

- 13.15 Reception of attendees
- 13.45 Welcome

  Prof. Hermann Kaufmann, HK Architekten,
  Schwarzach (AUT)
- 14.00 LCA in housing construction Holzbauquartier Berlin Elise Pischetsrieder, weberbrunner architekten, Berlin (GER)
- 14.50 Space Time Expression
  Timber construction through the ages
  Prof. Astrid Staufer, Staufer & Hasler Architekten,
  Frauenfeld (SUI)
- 15.45 Coffee break in the exhibition area

  Coffee sponsored by Stora Enso Wood Products
- 16.15 Changing our footprint
  Wiebke Ahues, Henning Larsen Architekten, Berlin (GER)
- 17.00 Public construction with wood
  Liza Heilmeyer, Birk Heilmeyer und Frenzel Architekten,
  Stuttgart (GER)
- 17.40 Grow your own buildings
  Dr. Martina Bauer, Barkow Leibinger Architekten,
  Berlin (GER)
- 18.20 Discussion

#### Pre-conference seminar II

\*with live transmission to the Freiburg room on the 3<sup>rd</sup> floor

### Prefabricated housing

Organized by the European Society for Prefabricated Housing, Bad Honnef (GER)

# European legislation and its impact on national companies and their products – finding your way around, understanding, navigating, implementing

Moderation: Georg Lange, European Society for Prefabricated Housing, Bad Honnef (GER)

Housing, Bad Honner (GEK)

Taxonomy, ESG criteria, sustainability reporting, troduct Sulation, EPBD – the list of initiatives and the Later Dean level is long and the Later Dean level is long and their way. This prologue is aimed at manufacturers of building products and buildings. We start with the EU's motivations and end with a practical comparison of buildings.

- 13.15 Reception of attendees
- 13.45 Welcome

  Markus Baukmeier, European Society for Prefabricated
  Housing, Bad Honnef (GER)
- 14.00 Transformation of the construction industry the EU as a pacesetter

  Philippe Moseley, Policy Officer at European Commission,
  DG GROW Construction Unit, Brüssel (BEL)

- 14.30 The EU taxonomy: the key to a low-emission and resource-saving construction industry companies between risk and opportunity Jan Kertscher, Associate Director (ARUP Deutschland) und Leiter für das Property Business und das Advisory Services Team
- 15.00 Sustainability reporting what do I have to do as a company with 30 1000 employees?

  Christian Garke, CFO, Oikos Group, Schlüchtern (GER)
- 15.30 Discussion
- 15.45 Coffee break in the exhibition area

  Coffee sponsored by Holzwerke Pfarrkirchen
- 16.15 Energy Performance of Buildings Directive (EPBD) Silver bullet for the building transition?

  Sabine Kamill, Bundesministerium für Klimaschutz,
  Umwelt, Energie, Mobilität, Innovation und Technologie,
  Vienna (AUT)
- 16.45 Future housing construction requirements for construction products and buildings

  Prof. Dr. Thomas Lützkendorf, Karlsruhe Institute of
  Technology, Karlsruhe (GER)
- 17.15 Construction methods, calculation rules and verification options for climate-friendly buildings
  Frederic Dorff, Bundesverband Deutscher Fertigbau e. V.,
  Bad Honnef (GER)
- 17.45 Discussion

#### Pre-conference seminar III

#### Wooden house construction

Organized by Timber Construction Europe, Berlin (GER)

# Building in existing stock – potential for the timber construction industry

Moderation: Stefan Leitner, Holzbau Austria, Vienna (AUT)
In the current social transformation, the focus within the timber construction industric also in fice. Building in existing stock with all its faces of the renovation of old buildings to urban densification, is increasingly becoming a key market for climate protection and the population looking for housing. Last but not least, climate-friendly living space through inventory optimization and expansion offers new potential for the timber construction industry. Challenges and opportunities must be weighed up equally.

- 13.15 Reception of attendees
- 13.45 Welcome

  Peter Aicher, Präsident Timber Construction Europe,

  Berlin (GER)
- 14.00 Addition instead of demolition a contribution to climate protection

  Prof. Dr. Annette Hafner, Technische Universität Bochum, Bochum (GER)
- 14.35 Building without land

  David Häring, Häring, Eiken (SUI)
- 15.10 Serial renovation a field report

  Alexander Gumpp, Gumpp & Maier, Binswangen (GER)
- 15.45 Coffee break in the exhibition area

  Coffee sponsored by Stora Enso Wood Products
- 16.15 Tradition and modernity combined Wolfram Kübler, WaltGalmarini, Zurich (SUI)

- 16.50 Re-Use a rediscovery in timber construction Dr. Martin Weigl-Kuska, Holzforschung Austria, Vienna (AUT)
- 17.25 Circular building with existing stock

  Melanie Karbasch, Architekturbüro Melanie Karbasch,

  Salzburg (AUT)
- 18.00 Discussion

#### Pre-conference seminar IV

#### Connection technology

Organized by Aalto Universität Helsinki (FIN)

#### Current developments in connection technology

Moderation: Prof. Dr. Gerhard Fink, Aalto University, Helsinki (FIN)
Timber engineering has developed rapidly in recent decades.
Wide-span halls and multilist rear Scantage buildings made of voor 100 per vicespread. High-quality and reliable connections are the basic requirement for these developments.

New and at the same time more demanding areas of application of the material wood require continuous further development in the field of connection technology as well as the integration of new knowledge into standardization. This year's prologue on connection technology deals with two topics: dismantling and assessment of connections as well as hybrid components, whereby the latter are also considered with regard to their dismantling and sustainability.

- 13.15 Reception of attendees
- 13.45 Welcome
  Prof. Dr. Gerhard Fink, Aalto Universität, Helsinki (FIN)
- 14.00 Removable connections for timber engineering Dr. Lisa Ottenhaus, The University of Queensland, Brisbane (AUS)
- 14.35 Point-supported cross laminated timber floors
  Prof. Dr. Thomas Tannert, University of Northern British
  Columbia, Prince George (CAN)
- 15.10 Not perfect, but resilient load-carrying capacity of nailed connections in existing buildings Prof. Dr. Werner Seim, Universität Kassel, Kassel (GER)
- 15.45 Coffee break in the exhibition area

  Coffee sponsored by Stora Enso Wood Products
- 16.15 Timber-concrete composite floors with a high degree of prefabrication in the project BOBK7 in Berlin Henning Ernst, SWG-Engineering, Rülzheim (GER)
- 16.50 Circular fasteners for hybrid construction
  Sascha Schaaf, Marvin Vollbracht, Peikko Germany,
  Waldeck (GER)
- 17.25 Timber-concrete composite floors research and development at the ETH Prof. Dr. Andrea Frangi, Eidgenössische Technische Hochschule, Zurich (SUI)
- 18.00 Discussion

#### Pre-conference seminar V

#### Wood and politics

Organized by Ministry of Agriculture and Forestry, Regions and Water Management, Vienna (AUT)

#### Wood Governance across Europe and beyond - woodPoP

Moderation: Alexander Buck, International Union of Forest Research Organizations (IUFRO) and Veronika Juch, Austrian Ministry of Agriculture, Forestry, Regions and Water Management

A growing number of countries and communities in the period of the work of the

- 13.15 Reception of attendees
- 13.45 Opening
  Georg Rappold, Ministry of Agriculture, Forestry,
  Regions and Water Management, Vienna (AUT)
- 13.50 Setting the Scene: The economic impact of forestry and wood industry in Europe

  Anna Kleissner, EconMove
- 14.20 The European Wood Policy Platform (woodPoP)
  Governance: Lisa Lehner, Ministry of Agriculture, Forestry,
  Regions and Water Management, Austria
  Building: Petri Heino, Ministry of the Environment, Finland
  Innovation and Research: Alfred Kammerhofer, Federal
  Office for Environment, Switzerland
  Education and Vocational Training: Andreja Kutnar,
  Director, Innorenew COE, Slovenia
  Communication and Information: Tomáš Krejzar,
  Director-General Wood Industry, Ministry of Economy,
  Tourism and Sport, Czech Republic
- 15.00 Round Table: Wood First: Best practice examples of initiatives fostering the sustainable use of wood Dirk Alfter, Head of Division, Federal Ministry of Food and Agriculture, Germany Graham Hilton, Trade and Investment Specialist Europe, British Columbia Ministry of Jobs, Economic Development and Innovation Takahiro Tsuchimoto, Chief timber research engineer, Tsukuba Building Research Institute, Japan
- 15.45 Coffee break in the exhibition area

  Coffee sponsored by Stora Enso Wood Products
- 16.15 Towards a Global Wood Policy Platform:
  Sustainable Wood for a Carbon-neutral Bioeconomy
  Janice Burns, International Union of Forest Research
  Organizations (IUFRO) and Thais Linhares-Juvenal,
  Food and Agriculture Organization (FAO)
  Kwame Asamoak Adam, CEO Ghana Timber Millers
  Organization
- 16.45 Round Table: Transitioning towards a wood-based bioeconomy

  João Lé, Member of the High Level Group on Forestry and Biomaterial

  Silvia Melegari, Secretary General, CEI-Bois

  Uwe Kies, Secretary General, InnovaWood

  Florian Kamleitner, Project leader, Bioeconomy Austria
- 17.45 End

onwards Aperitif in the exhibition hall

18.30 Sponsored by Lignopan Holzwerk Pfarrkirchen

onwards Dinner - Delightful things from the Alpine countries19.15 Exchange of ideas at the dinner in the Congress Center.

# Thursday, November 30 2023

**WOOD ENVIRONMENT** – Like other industries, the wood industry depends on the political and economic framework in which it operates. Therefore, it is in to time the consider the relevant national and internet of the lattends and economic developments in the context of an international conference.

- **07.45** Reception of attendees Welcomeskaffee offeriert von Gutex
- 08.30 Welcome by the organzier

  Prof. Dr. h.c. Heinrich Köster, Rosenheim Technical

  University of Applied Sciences, Rosenheim (GER)

#### **Climate and Timber construction**

Moderation: Prof. Dr. h.c. Heinrich Köster, Rosenheim Technical University of Applied Sciences, Rosenheim (GER) Climate change and the associated increase in global average temperatures can be measured and felt. In the foreseeable future, emissions must be reduced to zero and CO<sub>2</sub> must be removed from the atmosphere – naturally, through organic building components such as wood.

- 08.40 Extreme weather in climate change what do we have to adapt to?

  Frank Böttcher, Klimaforscher, Cologne (GER)
- 09.20 Timber construction's contribution to climate protection Dr. Sebastian Rüter, Thünen-Institut, Hamburg (GER)
- 09.50 Discussion
- 10.00 Coffee break in the exhibition area Coffee sponsored by Gutex

**TIMBER STRUCTURES** – High performance timber structures occupy a special place in the force of tion industry and the general public. The force of fidence in the performance of wood as a building material and document the wide range of its use.

#### Selected projects

Moderation: Ass. Prof. Dr. Tobias Schauerte, Linnaeus University, Växjö (SWE)

The versatility of the building material wood is reflected in the projects of the international architecture scene. New connection techniques and material combinations create the conditions for new applications. Based on a selection of projects of international importance, this block of lectures provides an overview of the various possible uses of wood and wood-based materials in modern building construction in combination with other materials.

- 10.30 Tøyenbadet The benefits and possibilities of wood in swimming pools Kent Are Kristiansen, Woodcon, Oslo (NOR)
- 11.00 Innovation Factory 2.0 Heilbronn

  Martin Vogelmann, merz kley partner, Dornbirn (AUT)
- 11.30 Gifu Media Cosmos Realization of a roof landscape made of domes

  Prof. Mitsuhiro Kanada, Kunstakademie Tokyo Architektur, Arup, Tokyo (JPN)
- 12.00 EDEKA's new central warehouse in wood Johannes Lederbauer, Wiehag, Altheim (AUT)
- 12.30 Discussion
- 12.40 Lunch break in Congress Innsbruck Coffee sponsored by isofloc

#### Groundbreaking multi-storey buildings

Moderation: Prof. Uwe Germerott, Bern University of Applied Sciences, Biel/Bienne (SUI)

The housing industry's demand for wooden buildings has increased significantly in recent years. Increasing trust and new wood-based materials support this development. Wooden buildings are now being implemented in new dimensions and and in concepts not seen before.

- 14.10 Eco Campus Arboretum Europe's largest development Antoine Fouchier, Mathis, Muttersholtz (FRA)
- 14.40 Hortus building according to the standards of tomorrow Richard Jussel, Blumer-Lehmann, Gossau (SUI)
- 15.10 Modular construction new dimensions

  Christian Kaufmann, Kaufmann Bausysteme, Reuthe (AUT)
- 15.40 Discussion
- 15.50 Coffee break in the exhibition area Coffee sponsored by Gutex

#### Gates to the world: wooden airports

Moderation: Wolfgang Alversammer, Rosenheim Technical University of Applied Sciences, Rosenheim (GER) Every day, millions of people are on the move at the world's airports. Many airports are increasingly using wooden supporting structures in addition to wood paneling. It remains to be seen whether air traffic and climate protection can be combined, but terms such as sustainability and climate-friendly fuels have entered the vocabulary of aviation. The social and ecological framework conditions have also prompted the airport operators to rethink.

- 16.20 Airship hangar Mülheim an der Ruhr
  Tobias Wiesenkämper, Ripkens Wiesenkämper Beratende
  Ingenieure, Essen (GER)
- 16.50 Portland International Airport Roof from design and dimensioning to detailing, fabrication and installation Jared M. Revay, TimberLab, Portland (USA)
- 17.20 Airport City Airport Luxemburg Skypark Business Center Dirk Berg, Steffen Holzbau, Grevenmacher (LUX)
- 17.50 Discussion
- 18.00 Coffee break in the exhibition area Coffee sponsored by tectofix-Bauer Technik

**WOOD CONSTRUCTION DEVELOPMENT** – The International Wood Construction Forum is a meeting place for inner at Companies, product developers and restar has StD Imper industry. In this block, the later to imprectly, solutions and research results are presneted, to exchange ideas with companies and to initiate new research projects.

#### Eurocode 5 - What will change, what is new?

Moderation: Dr. Simon Aicher, MPA University of Stuttgart, Stuttgart (GER)

The aim of revising the design standards is to adapt the standards to the current state of the art. The target group are trained civil engineers with three years of professional experience. The standards are therefore not written for laypeople, but for experts. Following the discussions in the past and the comments of users, the European Standardization Institute (CEN) has defined the "ease of use" for the second generation of the Eurocodes as one of the core goals of the new series of standards to be implemented, i.e. practical suitability and improved applicability.

- 10.30 The evolution of the Eurocode 5 an overview with focus on DIN EN 1995-1-1

  Prof. Dr. Stefan Winter, Technical University Munich, bauart Beratende Ingenieure, Lauterbach (GER)
- 11.00 Design of timber-concrete-composite floors according to CEN/TS 19103

  Prof. Dr. Jörg Schänzlin, Hochschule Biberach,
  Biberach (GER)
- 11.30 Cross laminated timber & block-bonded laminated veneer lumber the new EC5 material options

  Dr. Tobias Wiegand, Studiengemeinschaft Holzleimbau,

  Wuppertal (GER)
- 12.00 Dimensioning of openings extended possibilities with the new Eurocode 5

  Prof. Dr. Philipp Dietsch, Karlsruhe Institute of Technology, Karlsruhe (GER)
- 12.30 Discussion
- 12.40 Lunch break in Congress Innsbruck

  Coffee sponsored by tectofix Bauer Technik

# Bio-based wood adhesives and ${\rm CO_2}$ -optimized wood-based materials

Moderation: Dr. Simon Aicher, MPA University of Stuttgart, Stuttgart (GER)

Against the background of the "European Green Deal" and the associated objective of doing business in the EU in a climate-neutral manner by 2050, companies are developing their own climate targets, with a focus on emissions. By decarbonizing processes, it should be possible to avoid burning fossil fuels in the future. However, higher demands are placed on load-bearing components. The agenda is something like the search for the Holy Grail: 100% emission-free adhesives for load-bearing wood-based materials based on renewable raw materials.

- 14.10 Bio-based adhesives for the wood industry
  Dr. Christian Hübsch, UPM Biochemicals, Leuna (GER)
- 14.40 Carbon footprint along the supply chain
  Dr. Martina Bender, Egger Holzwerkstoffe, St. Johann (AUT)
- 15.10 New generation PUR with renewable carbon compounds Dr. Christian Fild, Henkel, Sempach (SUI)
- 15.40 Discussion
- 15.40 Coffee break in the exhibition area Coffee sponsored by Gutex

## Adhesive bonding technology

Moderation: Dr. Simon Aicher, MPA University of Stuttgart, Stuttgart (GER)

The block "adhesive bonding" gives an insight into the basic requirements for modern wood adhesive bonding and shows the close link between gluing technology and the introduction of innovative wood products. New developments in timber construction based on adhesive technology will be presented.

- 16.20 Glued board and rib elements, reinforcements and repairs the extended possibilities of the new DIN 1052, parts 10 and 11

  Dr. Simon Aicher, MPA University of Stuttgart, Stuttgart (GER)
- 16.50 Long-span butt-bonded cross-laminated timber ceilings the revolutionary Timber Structures 3.0 technology Sven Bill, Timber Structure 3.0, Thun (SUI)

  Dr. Marcel Muster, Timbatec Holzbauingenieure Schweiz, Zurich (SUI)

- 17.20 Adhesive technology for timber components in Japan, Industrial manufacturing, block bonding, quality control Dr. Takahiro Tsuchimoto, Building Research Institute, Tsukuba (JPN)
- 17.50 Discussion
- 18.00 Coffee break in the exhibition area Coffee sponsored by tectofix-Bauer Technik

MASTER COLLOQUIUM - The Master of Science in Wood Technology from Bern University of Applied Sciences and Tosenheim Technical University of Applied Science in Wood Technology from Bern University of Applied Science in Wood Technology from Bern University of Applied Sciences and Tosenheim Technical University of Applied Sciences and Tosenhe

# Wood construction for the future – enhanced design approaches and engineered materials to turn concepts into reality

Moderation: Moderation: Prof. Dr. Christophe Sigrist, Bern University of Applied Sciences

- 10.30 Welcome and introduction
  Christa Gertiser, Bern University of Applied Sciences
- 10.35 Behaviour factor for light frame timber shear walls in the context of the second generation of the Eurocode Lukas Kramer, Bern University of Applied Sciences
- 11.00 Investigation of lateral torsional buckling of timber beams under combined bending and compression

  Julian Lukas, University of Stuttgart
- 11.25 Analysis of the adhesive bond strength in cross-laminated timber components regarding the influences on the adhesive bond quality based on shear tests Paul Selmer, OTH Regensburg
- 11.50 Concept study on a maximally sustainable, industrially manufactured house with wood panel contraction Pia Link, Rosenheim Technical University of Applied Sciences
- 12.15 Discussion
- 12.40 Lunchtime

  Coffee sponsored by tectofix Bauer Technik

# Wood construction of the future – reuse timber components and extend the life of existing timber structures

- 14.00 Circularity in Timber Construction
  Leoni Lichtblau, Technical University of Munich
- 14.25 branntneu. Neighbourhood development and redensification in timber construction on the Branntweinareal in Munich

  Anna Maria Brendel, Technical University of Munich
- 14.50 Discussion

### WORLD CAFÉ AS PART OF THE MASTER'S COLLOQUIUM

Opportunity for networking and exchange between manufacturing companies, architects, planter and companies. Opportunities, challenger at a large architects of four subject areas are discussed in small groups. The thematic tables are moderated by experts from the universities involved in the Forum Holzbau, accompanied by the Bavarian Research Alliance. The World Café offers a starting point for topic-specific working groups and joint research projects.

15.00 Welcome and goal setting for World Café
Prof. Andreas Heinzmann and Prof. Maren Kohaus,
Rosenheim Technical University of Applied Sciences (GER)

- 15.05 Opportunities for cooperation in timber construction

   creative and innovative solutions through knowledge
  transfer and interdisciplinary exchange
  Prof. Andreas Heinzmann and Prof. Maren Kohaus,
  Rosenheim Technical University of Applied Sciences (GER)
- World Café Discussion in small groups at (4) theme tables
   Practical uses of robotics in timber construction
   Moderation: Prof. Andreas Heinzmann,

Rosenheim Technical University of Applied Sciences (GER)

 Data flow in timber construction – from the BIM model to automated production
 Moderation: Prof. Dr. Daniel Küppersbusch,

Rosenheim Technical University of Applied Sciences (GER)

- Hardwiood in timber construction –
  opportunities and challenges
  Anne Niemann, Rosenheim Technical University of
  Applied Sciences (GER)
- Circular building: new architectural construction and design principles
   Moderation: Prof. Hanspeter Bürgi, Bern University of Applied Sciences, Biel/Bienne (SUI)
- 15.50 Coffee break in the exhibition area Coffee sponsored by Gutex
- 16.20 World Café continued
- 17.20 Presentation of the group work
- 17.40 Discussion and next steps
- 18.00 Coffee break in the exhibition area

  Coffee sponsored by tectofix-Bauer Technik

#### **MESSAGES | GUEST TALKS | HONORS**

Moderation: Prof. Dr. h.c. Heinrich Köster, Rosenheim Technical University of Applied Sciences, Rosenheim (GER)

- 18.30 The significance of ChatGPT

  Prof. Dr. Alexander Pretschner, Technical University

  Munich, Munich (GER)
- 19.10 Tribute to individuals with exemplary service to the wood construction industry.

#### George Kuratle, Entrepreneur (SUI)

Born in 1953, the entrepreneur continued to develop the family business founded by his father in 1955, initially operating regionally, into the most important group of companies in the Swiss woodbased materials market. Today's internationally oriented trading and logistics company is one of the market leaders in the wood processing industry. Known as a pioneer who always thinks outside the box, Georg Kuratle also consistently uses wood as a renewable material in his own projects. He continues to actively contribute his knowledge, his experience and his visions to the group and to numerous committees and industry organizations.

#### Univ.-Prof. i.R. Dr. Alfred Teischinger (AUT)

Born in 1954, the scientist and world-renowned wood expert studied wood science, earned his doctorate, and after leading positions in research he was appointed professor at the University of Natural Resources and Applied Life Sciences in Vienna, where he led the Institute for Wood Research and the Department of Materials Science and Process Technology. He is known for his activities in national and international committees and his business-related expertise. After his retirement in 2019, he continues to work as a consultant in teaching and business.

onwards Gala dinner at the Innsbruck exhibition center20.00 Coffee sponsored by Koch & Schulte

# Friday, December 1 2023

**WOOD 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

#### **Exposed engineering structures**

Moderation: Prof. Dr. Philipp Dietsch, Karlsruher Institut für Technologie, Karlsruhe (GER)

Realizing extraordinary engineering structures made of wood has always had a special appeal for plantage of the Cas In addition to bridges and towers, ties territorial the cas of application. On the years, such as wooden car parkades. But wooden bridges are also increasingly in demand. The revision of Eurocode 5-2 "Timber bridges" comes at the right time. Damage to existing structures also helps to learn lessons for the planning and execution of future wooden bridges.

- 08.30 Eberswalde bicycle parkade
  Prof. Dr. Michael Staffa, ifb frohloff staffa kühl ecker,
  Berlin (GER)
- 09.00 Car park Schwanenweg Wendlingen
  Juliane Deubel, knippershelbig, Stuttgart (GER)
- 09.30 Bad Aibling multi-storey parkade added value with wood Matthias Eisele, merz kley partner, Dornbirn (AUT)
- 10.00 Coffee break

  Coffee sponsored by Koch & Schulte
- 10.30 The new Eurocode 5-2 Timber bridges: changes and innovations

  Matthias Gerold, Harrer Ingenieure, Karlsruhe (GER)
- 11.00 The Tretten bridge collapse, how could it happen Prof. Kjell Arne Malo, Norwegian University of Science and Technology, Trondheim (NOR)
- 11.30 Green Gantry Wooden toll bridges

  Dr. Georg Flatscher, freiraum, Graz (AUT)

  David Glasner, University of Graz, Graz (AUT)
- 12.00 Discussion
- 12.20 Coffee break

  Coffee sponsored by Dynea

#### Block B

#### **Robust structures**

Moderation: Prof. Michael Flach, University of Innsbruck, Innsbruck (AUT)

Safety in relation to a possible structural failure should be carefully considered, especially the actual Social large numbers of visitors. The Cobaxial load transfer, so-called redundant structures have the ability to dissipate loads through redistribution via different paths. As a result, they do not fail when the limit of one component is reached, but they use reserves of the entire system. The selected examples show interesting solutions on how the efficiency of supporting structures can be increased to make the load-bearing capacity safer.

- 08.30 Introduction to redundant load-bearing structures
  Example of beam and truss gratings
  Prof. Michael Flach, University of Innsbruck, Innsbruck (AUT)
- 09.00 Reciprocal Frame Roof of the Events Beacon for a Tech Office Building in California

  Eric Karsh, Equilibrium Consulting, Vancouver (CAN)

09.30	Resource-efficient wooden segment shells Prof. Dr. Jan Knippers, University of Stuttgart, Stuttgart (GER)
10.00	Coffee break Coffee sponsored by Koch & Schulte
10.30	Sports hall in Donzère with Moucharabieh beams Andréa Voisin, Arborescence, Lyon (FRA)
11.00	Wisdome – Technical museum Stockholm Stefan Rick, SJB Kempter Fitze, Frauenfeld (SUI)
11.30	Sports hall in Zurich with prestressed glulam beams Dr. Marcel Muster, Eidgenössische Technische Hochschule, Zurich (SUI)
12.00	Discussion
12.20	Coffee break Coffee sponsored by Dynea

#### Block C

12.20

Coffee break

# Multi-storey timber construction today - reliable, innovative and economical

Moderation: Prof. Andreas Müller, Bern University of Applied Sciences, Biel/Bienne (SUI)

Timber construction has established itself as a sustainable, reliable and economical construction in a first br multi-storey buildings well beyond the first beautiful in the case of large-volume projects in particular, the usual planning and production processes in timber construction benefit professional implementation. This minimizes the risks compared to conventional construction methods. Particular attention is paid to economic efficiency in the concepts – in addition to a high level of safety, robustness and reliability over the entire service life. This also creates space for continuous further developments and innovations.

developments and innovations.		
08.30	Introduction	
08.40	Structural concepts for slim, tall wooden buildings Charles Binck, Eidgenössische Technische Hochschule, Zurich (SUI)	
09.10	Limberlost Place, George Brown College, Toronto – innovative, wide-span ceiling system Robert Jackson, Fast & Epp, Vancouver (CAN)	
09.40	b_project – the one-stop-shop solution for economical, multi-storey wooden buildings Helmut Spiehs, Binderholz, Fügen (AUT)	
10.10	Coffee break Coffee sponsored by Koch & Schulte	
10.40	The hybrid high-rise CARL in Pforzheim – lessons learned Peter W. Schmidt, Peter W. Schmidt Architekten, Pforzheim (GER)	
11.10	Mid- and high-rise timber buildings in Japan Prof. Dr. Mikio Koshihara, University of Tokyo (JPN)	
11.40	Stockholm Wood City – the project sets new standards Oskar Norelius, White Arkitekter, Stockholm (SWE)	
12.10	Discussion	

Coffee sponsored by Stora Enso Wood Products

#### Block D

TUM.wood – Adventure Wood Research – a discussion forum Moderation: Prof. Dr. Stefan Winter, TUM.wood, Munich (GER)
This block provides insights into the colorful word research and beyond into deither the colorful word research and contrarian out it is a second of the color of the

#### 08.30 Teil 1: The future of wood use

Short presentations followed by a podium discussion Dr. Susanne Winter, WWF Deutschland, Berlin (GER) Johannes Schmitt, Deutscher Forstwirtschaftsrat, Berlin (GER)

The future use of wood is closely linked to the goals of climate protection and the preservation of biodiversity. At the same time, the wood market is significantly influenced by the issues of wood supply on a national and international level. How do we create a balanced approach to these issues to reconcile environmental sustainability and economic progress?

10.00 Coffee break
Coffee sponsored by Koch & Schulte

# ${\bf 10.45} \qquad {\bf Short\ presentations\ followed\ by\ a\ podium\ discussion}$

Kurzvorträge mit anschliessendem Diskussionsforum Prof. Dr. Andreas Bolte, Thünen-Institut für Waldökosysteme, Eberswalde (GER) Ludwig Lehner, Technikum Laubholz, Göppingen (GER)

The National Forest Inventory shows increasing wood stocks, especially hardwood. Damage caused by heat, drought and insects lead to an increase in the amount of damaged wood, especially in the case of spruce. In the future, due to climate change and planned forest adjustments, a decline in conifers and an increase in deciduous trees is expected. What about the usage options for hardwood? Which steps are necessary to promote the efficient material use of hardwood?

12.20 Coffee break
Coffee sponsored by Stora Enso Wood Products

#### **EPILOG**

#### From tradition into the future

The arrival of European and Asian timber construction cultures in the 21st century

Moderation: Prof. Wolfgang Winter, Technical University Vienna, Vienna (AUT)

A look at the media shows that urban, multi-storey hybrid timber construction has made a comeback in the 21st century after being almost completely replaced by steeland reinforce concrete in the 20th century. Highly action 14 STD is will be shown from the German's Calony area and Japan. These regions build on diverse and innovative timber building cultures, which also enriched building technology and architecture in the urban context up to the end of the 19th century. The epilogue is intended to discuss the extent to which centuries-old technical and cultural achievements in timber construction have been preserved, despite being suppressed in the 20th century, and can be reactivated and further developed in the 21st century. In addition to technical questions and cultural aspects, this also includes questions of resource availability and the feasibility of a renewed conversion of construction production.

- 12.50 Timber construction in Japan
  About flexible floor plans and the way from temple
  building to urban multi-storey buildings
  Prof. Em. Dr. Seiichi Fukao, Tokyo Metropolitan University,
  Tokyo (JPN)
- 13.15 New construction of a studio and exhibition building for Ai Weiwei in traditional log construction

  Ana Sofia Veiga Architektin, Vendas Novas (PRT)

  João Veloso Architekt und Projektmanager bei Portilame,

  Braga (PRT)
- 13.40 Does timber construction have limits of growth?

  Prof. Dr. Philipp Dietsch, Karlsruhe Institute of Technology,
  Karlsruhe (GER)
- 14.05 Timber Construction in Europe –
  Achievements and Future Prospects
  Dr. Sandra Hofmeister, Detail, Munich (GER)
- 14.35 Discussion and final words
- 14.40 Lunch Coffee sponsored by
- 15.30 End of IHF 2023

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  $27^{\text{th}}$  International Wood Construction Conference IHF 2023.

#### Place of the Conference

Congress Innsbruck, Rennweg 3, 6020 Innsbruck, Austria

# Accommodation

You can find our partner hotels on our website:

#### www.forum-holzbau.com/IHF

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# Contact during the event

Simone Burri T +41 79 448 30 07

#### Registration

Please fill out the attached form and send it to the address belan by mail:

#### FORUM HOLZBAU

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Closing date for registration November 22 2023

The number of participants is limited. Registrations are processed in the order in which they are received.

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# 27<sup>th</sup> International Wood Construction Conference (IHF) Innsbruck, Congress Centrum

Practical experience - Practical application

## Registration from the Conferences (incl. conference documentation)

O Pre-Conference Seminar from 29.11.23, incl. dinner	190 EUR/CHF
Opening Session + Pre-Conference Seminar from 29.11.23, incl. catering	280 EUR/CHF
O International Wood Construction Conference (IHF) from 30.11.+1.12.23, incl. catering	620 EUR/CHF
O Pre-Conference Seminar + International Wood Construction Conference, incl. catering	715 EUR/CHF
Opening Session + Pre-Conference Seminar + International Wood Construction, incl. catering	755 EUR/CHF
<ul> <li>Cannot attend, but would like personal access for one year to forum-holzwissen.com.</li> <li>Access to all TB from FORUM HOLZBAU.</li> </ul>	150 EUR/CHF

#### Select the desired prologue or theme block

Pre-Conference Seminar, 29.11.2023

- O Pre-Conference Seminar I Architecture
- O Pre-Conference Seminar II Prefabricated housing
- O Pre-Conference Seminar III Wooden house construction
- O Pre-Conference Seminar IV Connection technology
- O Pre-Conference Seminar V Wood and politics

International Wood Construction Conference, 1.12.2023

- O Block A Exposed engineering structures
- Block B Robust structures
- O Block C Multi-storey timber construction today reliable, innovative and economical
- O Block D Adventure Wood Research a discussion forum
- I wish vegetarian food I wish vegan food Fees do not include tax.



# Online registration: www.forum-holzbau.com/IHF Closing date for registration November 22 2023

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