



**THE FUTURE  
WILL BE BUILT  
ON WOOD**

**HÄRING**   
INNOVATIVE BUILDING SYSTEMS



**IT SOUNDS QUITE MIRACULOUS. A RAW MATERIAL OFFERING VIRTUALLY UNLIMITED BUILDING OPTIONS THAT'S PRODUCED USING JUST WATER, SUNLIGHT AND MINIMAL ENERGY. OVER AND OVER AGAIN. THERE'S SURELY NO OTHER MATERIAL THAT CAN OFFER HUMANKIND SO MUCH.**

## WELCOME TO THE TIMBER AGE!

Light, fast and green – the megatrend of the 21<sup>st</sup> century also applies to construction. From apartment buildings to hotel towers, from salt storage to parking, from additional storeys to childcare centres – wood's reputation as the ideal material for meeting modern-day construction demands and fulfilling our building desires with clever solutions is spreading all over the world. The Timber Age is upon us! As a complete service provider with profound engineering expertise, we set very high standards in respecting the materials, time, expenses, land, energy and other resources we use. As your construction partner, we offer the advantages of simple, convincing solutions and outstanding value for money. Our seamlessly digitalised plants produce ready-made modular buildings and extremely complex support structures. But our industrial processes don't stop each building from being unique. Each one is a prestigious testament to future-proof modular building and locally rooted sustainability. Since the outset in 1879, the Häring family business has kept on growing under its own steam. Our personal commitment to the company and the structures it builds has remained constant throughout the generations.



Jürgen Felber  
executive Director

Stefan Wettstein  
manager of finance

# THE 21<sup>ST</sup>-CENTURY MATERIAL

## PERFECT FOR DIGITAL CONSTRUCTION

Wood has the potential to raise construction to a new level. This natural product has proved its worth for thousands of years as a robust, stable and yet lightweight construction material. It is now becoming clear that this traditional choice is also a state-of-the-art material. The treasure our forests provide can be used to make high-precision components directly from digital models and using industrial processes – turning wood into an elite 21<sup>st</sup>-century construction material.

## GROWING OPPORTUNITIES

The digital revolution has made high-precision pre-fabrication, punctual construction-site logistics and fast assembly the name of our game. Robots produce even the most complex beams, while sensor technology constantly checks the quality of the material. Fibre-reinforced laminate wood and innovative connector technology are bringing wooden constructions increasingly to the fore. Revised regulations have recently authorised the use of wood for high-rise buildings.

## SPOTTING TRENDS

Our solid experience and keen interest in research and development inspire us to keep branching out in new directions. Innovation has always stood right at the heart of our business. Our ongoing mission is to push forward our engineering expertise and manufacturing and material technology. However fast the advances, wood remains a high-tech material that grows right on our doorstep.

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From craftsmanship to robotics and individual features to major components, rapid developments in wooden construction keep on expanding the options for design and applications.



# HIGH-TECH MATERIAL WITH POTENTIAL FOR GROWTH

## LONG-TERM COST-EFFICIENCY

Besides being the perfect material for digital construction, wood offers many other impressive advantages. Wooden constructions protect against sun and rain for an almost unlimited lifespan. Wood is also resistant to harsh substances. As a result, our support structures for storing salt and other chemical agents have magnificently withstood the test of time. Wooden constructions' robustness and resistance to corrosion make them low-maintenance and cost-effective.

## THE EASIER WAY TO BUILD UPWARDS

The light weight of wood belies its extraordinary stability. A wooden rod hanging vertically could reach five kilometres in length before breaking under its own weight. In proportion to its weight, wood therefore matches steel in terms of its breaking strength. Contemporary architecture, with its complex free forms and high-rise buildings, shows just what this sustainable construction material can achieve.

## HARD TO BEAT

Although a combustible material, large workpieces of laminate wood prove determinedly fire-resistant. Whereas steel buckles at 450°C, a wooden support remains undamaged below the charred surface even at 1000°C. What's more, wooden constructions are earthquake-resistant, as the material is lighter and more elastic than its conventional counterparts. The sum of its physical, ecological and economic properties means that wood will remain hard to beat in the future.



Material-efficient constructions, dense high-rise construction and complex free forms represent just a few of the applications where the incredibly diverse material wood stands out proud.

## COMPREHENSIVE RANGE OF SERVICES

### SOLUTIONS FROM A TO Z

We are a diverse and flexible service provider with comprehensive solutions for all your construction project requirements. Whether we are acting as project developer for a residential development, general contractor for a sports hall, or the partner responsible for the wooden elements of a hybrid construction, we show you the resource-saving and cost-efficient way. Simply bring your idea to us, and together we will develop it further.

### FOR INVESTORS, CLIENTS & ARCHITECTS

We act as the interface between investors, clients and architects. We work on behalf of institutional investors, individuals and industrial, commercial and public clients. But we also relish working with architects on developing joint projects or with those who are simply looking for a reliable partner for ambitious wooden construction projects.

#### PROJECT DEVELOPMENT



From idea to development – we create state-of-the-art apartment buildings for institutional and private investors.

#### GENERAL CONTRACTOR



Everything from a single source. We build turnkey residential and commercial properties for you – from additional living space to industrial halls.

#### WOODEN CONSTRUCTION SYSTEMS – from apartment buildings to sports halls



## CUSTOMIZED OFFER, FULL EXPERTISE

### TAILOR-MADE SERVICES

Our company provides you with profound expertise in development, planning, design, engineering and implementation. Whether sub-projects or all-in-one solutions, we offer you the full spectrum of wooden and modular construction. Auxiliary services – from portfolio analyses right through to support-structure inspections – round off our range of offerings. Whatever your plans, we guarantee you a reliable, individual and elegant result.

### ADDITIONAL STOREYS



Our ATTICO® system enables you to build without spare land. This quickly increases the value of your property and adds extra living space.

### SUPPORT STRUCTURES AND HALLS



We calculate and build support structures for any requirement – even double-curved free forms. We create our flexible halls in whatever size you require.

### DOMES



Our domes are equally ideal for storing bulk goods or as sports halls. The ingenious design of our earthquake-proof complete solutions creates lots of space on a small footprint.



Development, planning, design, engineering and implementation – discover our broad spectrum of services and profound expertise.



## FROM IDEA TO DEVELOPMENT

### PROJECT DEVELOPMENT FOR INVESTORS

Together with house and land owners, investors and architects, we develop real estate projects on vacant and under-utilised plots. We work together with you to create architecturally attractive properties that are desirable to tenants and buyers and meet the needs of today and tomorrow. Our experience enables us to guarantee you absolute cost certainty and thus ensure your return. By appointing us as your general or complete contractor, you can be sure of a single point of contact from purchasing the land right through to receiving the keys.



↖ Apartment buildings in Lausen, Basel-Country,  
Häring & Co. AG

↑ Apartment buildings in Mon Répos, Friburg, Friburg canton,  
Arcad Architectes

↗ Apartment buildings in Hofstetten, Solothurn,  
Steinmann & Berger



### BENEFITS OF MODULAR CONSTRUCTION

Our modular construction system offers you numerous benefits. The swift building process generates rental income all the faster. Slim, highly heat-insulated walls gain you usable space and flexibility in the layout of the floor plan. By using wood as a construction material and building compactly, the system also scores highly in terms of sustainability.

# TURNKEY RESIDENTIAL AND COMMERCIAL BUILDINGS

## QUALITY GENERAL CONTRACTOR

In the role of general or complete contractor, we plan and construct ambitious buildings using state-of-the-art wood or hybrid methods – from extending living space to entire estates, from building new offices to industrial halls, from childcare centres to sports stadiums. We promise you reliable costs and deadlines and pride ourselves on providing detailed advice and continuous quality assurance.

## RELIABLE PARTNER

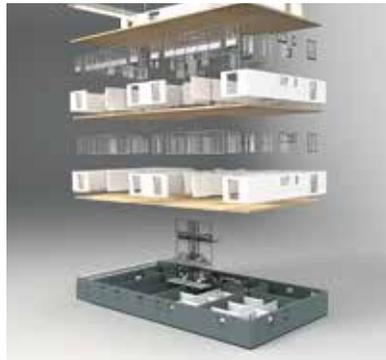
Our in-house and external experts join forces to perform the networked and inter-disciplinary planning that promises you a sophisticated solution. Our collaborative working methods always bear the overall outcome in mind to ensure value for money.

- ↳ Detached house in Füllinsdorf, Basel-Country, Häring & Co. AG
- ↳ SBB freight railway station, Basel, ARGE Patrick Roost/Menzi Bürgler Architekten
- ↳ Office building, Kloten, Zurich canton, Schiess Iti AG
- ↳ Racecourse office building, Muttenz, Basel-Country, Häring & Co. AG





The heart of our production operations at Roth Burgdorf AG is the five-axis CNC beam robot. The mobile gantry system with its extensive range of tools processes beams up to 48 metres long – to a degree of precision that was previously the preserve of mechanical engineering.



## SEAMLESS DIGITAL PLANNING AND PRODUCTION

### PRECISION-MANUFACTURED

Whether prefabricated wooden components or laminate wooden supports, we plan and manufacture our own parts. This shortens communication channels and reduces the number of interfaces. Our digital processes achieve a degree of precision that has been known to astonish some architects. To achieve seamless processes, we prefabricate many components – from windows to power sockets, building shells to oak parquet flooring, we can pre-assemble everything in our own factory.

### OUR CONSTRUCTION SITES RUN LIKE CLOCKWORK

The more work we perform in our factory, the smaller, cleaner and quieter your construction site will be, while also gaining you valuable time. We are fully equipped to perform Building Information Modelling (BIM), in which 3D computer models check pipes, through-holes and connections to avoid any collisions. This promises you smooth construction works and properly placed installations.



Work in our production facilities is organised digitally. Prefabrication ensures such precision and high quality that we can promptly deliver fully developed construction components to the site and assemble them smoothly in next to no time.



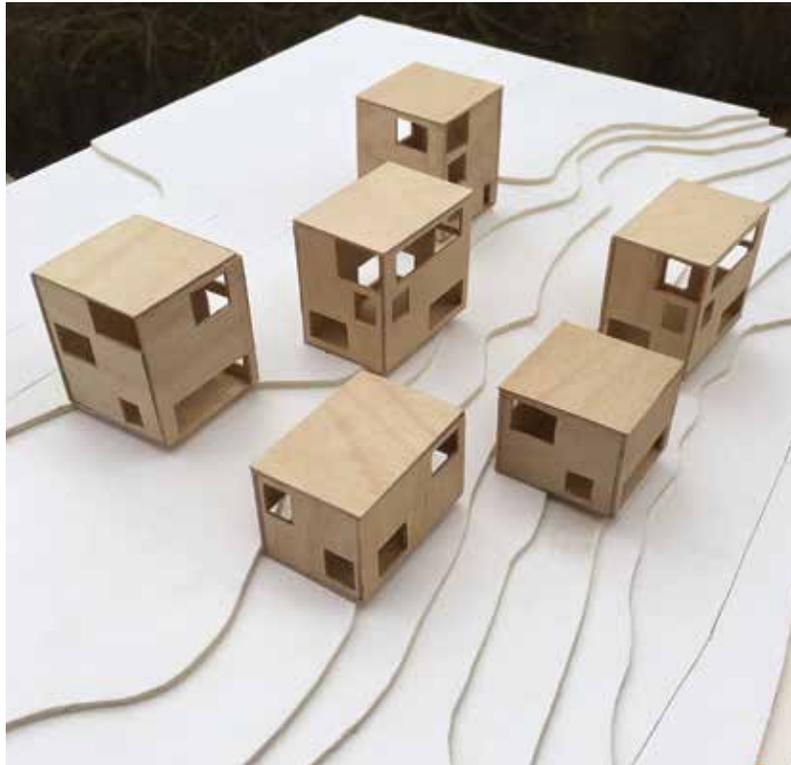
## THE THOUGHTFUL SYSTEM PARTNER

### INDUSTRIAL AND PERSONAL

Clients find us a reliable partner for a wide range of projects – from precise façade, wall and ceiling elements through to fully equipped modules and complex support structures. As your system partner, we combine your own individual design with cost-effective manufacturing. Involving us at an early stage will secure you the greatest benefit from our experience in modular building.

### SWIFT COMPLETION

Our systematic approach includes optimised logistics processes. For instance, we already start producing components while the preparation work on the construction site is still under way. Combined with fast delivery and swift assembly, this enables us to meet even extremely tight deadlines.



- ↖ Hotel Rovanada modular building in Vals, Grisons, Häring & Co. AG
- ← Additional storey, Füllinsdorf, Basel-Country, Marquis AG
- ← Detached houses in Niederlenz, Aargau, Architheke AG
- ↑ System-built McDonald's, Egerkingen, Solothurn, Arcad Architectes



## ATTICO®: BUILDING WITHOUT SPARE LAND

### ADD STOREYS – ADD VALUE

Use our ATTICO® system to increase the value of your property in the shortest possible construction time, thus laying the foundations for greater returns. Our additional storeys create state-of-the-art, first-class living space that tenants will clamour to rent. Prefabrication gains you valuable time. The light weight of the construction components means you won't need to reinforce your building in most cases. What's more, existing tenants can remain in their apartments, meaning that hardly any rental income is lost. This is how simply you can build without spare land – and make a valuable contribution to filling in gaps.

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↑ ATTICO® additional storey in Hochstrasse,  
Zurich, Mainberger+Spahr  
ATTICO® additional storey in In der Ey,  
Zurich, Mainberger+Spahr  
→ Before / After / Interior view  
ATTICO® additional storey in Schaffhauserstrasse,  
Zurich, Mainberger+Spahr  
↓ Before / After



### COMBINING WITH RENOVATION

It often makes sense to combine adding a storey with any renovation works that are required. We check with you to see if it would make sense to renovate the façade, optimise the heat insulation or install a lift while we are adding an extra storey. ATTICO® covers all works for you in one go.



- ↑ Work yard in Arlesheim, Basel-Country, Wengerpartner AG
- Gotthelf day centre pavilion, Basel, Lorenzo Guetg
- Childcare centre in Killwangen, Aargau, William Steinmann
- ↓ School house in Port, Berne canton, Skop GmbH/Basil Spiess



## PUBLIC BUILDINGS MADE FROM YOUR OWN WOOD

### SOURCED FROM PUBLIC FORESTS

Wood grows right on the doorstep of many urban and rural communities. We help representatives of public authorities to use their own wood to build schools, childcare centres, work yards and gymnasias. It's a great way of setting a shining example of sustainability – and for only around one per cent on top of the overall cost.

### ADAPTABLE SCHOOL BUILDINGS

For public buildings in particular, the key requirement is flexibility. These kinds of buildings must be able to keep up with changing requirements in rural and urban communities. Our modular construction system meets these needs perfectly, allowing quick and easy restructuring – such as extending work yards or closing off open-plan rooms. It doesn't take long for us to build additional walls or galleries into school rooms – the job's easily done during the summer holidays. Our modules are always a neat solution for conversions or a sudden increase in pupil numbers. We enjoy rising to the challenge set by tight deadlines.



## SPORTS HALLS THAT DON'T COST THE EARTH

### ADAPTABLE CONCEPT

Our sports and multi-purpose halls benefit hugely from modular construction and prefabrication, and can be completed cost-effectively and extremely quickly. Above all, these buildings made from the natural materials wood and glass are exceptionally functional and beautiful in their simplicity. The façades can be freely designed, and it goes without saying that the rooms and equipment can be adapted to perfectly suit the intended usage.

### COVERED SPORTS PITCHES, LOCAL INVOLVEMENT

Our dome system is another great option. This material-saving construction method enables you to quickly and cost-effectively add a roof over sports pitches or build multi-purpose halls. Our working party system enables us to get local tradespeople involved in key aspects of the project.



↖ Volero training hall, Zurich, Architheke AG  
(visual representation)

↖ Sports hall in Kaisten, Aargau, Architheke AG

↑ Riding hall in Kaiseraugst, Aargau, Menig AG

→ Football dome, Häring & Co. AG (visual representation)



## FLEXIBLE HALLS FOR INDUSTRY AND COMMERCE

### FLEXIBLE DESIGN

When it comes to industrial buildings, warehouses and depots, adaptability comes first. The almost infinite choice of spans, freely divisible areas and rooms, and compatibility with a wide range of materials make wood an exquisite construction material. By choosing to build with wood, as the client you are making a very clear public statement about your corporate commitment to sustainability.

### ADAPT OR EXTEND

The ultimate key to our halls is their ability to accommodate changing needs, for instance by reorganising the partitions or closing off open-plan rooms. This flexibility goes as far as dismantling entire halls and quickly rebuilding them at a new site, for which there are plenty of real-life examples.



↗ Bus depot in Liestal, Basel-Country, Häring & Co. AG

↑ Warehouse in Niederbipp, Berne, Vogel Architekten

→ Tram depot, Basel, Baader Architekten AG

→ Sales hall for showcase apartments, Ulsan, South Korea, Huscon Construction Co. Ltd.





## DOMES FOR BULK GOODS AND SPORTS

### PLENTY OF SPACE USING LITTLE MATERIAL

Our dome structures provide a high storage capacity per square metre – the ideal solution for bulk materials. A span of 200 metres provides storage for up to 700,000 cubic metres of salt or coal. This efficient and cost-effective construction can also be used for football or hockey stadiums – and your customised complete solution takes less than five weeks to install. The dome protects against dust and weather conditions and can withstand earthquakes and fire. And, if the need arises, you can even relocate your dome.

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Saldome 2 in Rheinfelden,  
Aargau, Häring & Co. AG



### THE ART OF ENGINEERING

Our ingenious engineering comes to the fore at the points where the three arch systems interlock. The connecting elements are secured firmly in the laminate wood using glued-in threaded rods and are bolted to the central tube. This enables the joints to bear enormous forces in a very small space.



## AESTHETICS COMBINED WITH COST-EFFICIENCY

### WELL-BALANCED SUPPORT STRUCTURE SOLUTIONS

To develop ground-breaking ideas and implement innovative designs, you need support structure specialists with experience and foresight. We have learned the potential of laminate wood through years of experience, and persistently strive to expand the fields in which it is used. We are familiar with using value analyses to ensure we always find an aesthetically and financially balanced solution for your project. By manufacturing our own components, we can provide you with everything you need from a single source – from engineering right through to assembly.



### OVERLAPPING PROCESSES

We use simultaneous engineering at the development stage to overlap work steps that would normally take place in turn. This enables us to complete even complex support structures both quickly and at a competitive price. And all to Swiss standards of quality.

- ↻ Production hall in Reinach, Aargau, Bruno Burger Architektur & Partner AG
- ↶ Warehouse in Conthey, Valais, ae2p architekten GmbH
- ↑ «Eden Project» exhibition building in Cornwall, United Kingdom, Nicholas Grimshaw
- ← «Wave» platform roofing at the SBB railway station, Berne, Smarch
- ↶ Production at Roth Burgdorf AG (Häring Group)



## FREE-FLOWING INTO THE FUTURE

### AT HOME WITH NEW VENTURES

Häring has always felt driven to optimise the present and shape the future. Aware of the limited resources on this Earth and the endless possibilities in wooden construction, we constantly explore new avenues. Our pioneering spirit quickly led us towards innovative concepts such as low-energy housing, sustainable support structure systems and modular construction methods. Today, we are breaking into fields of application using wood as a material that were previously restricted to solid construction.

### FULL OF DIFFERENT IDEAS

Where heavy, energy and resource-intensive construction materials used to predominate, we break new ground with lightweight, renewable wood. For instance, we develop multi-storey modular construction systems for residential and hotel buildings or modular-style parking garages. We put the fact that wood is a non-magnetic material to excellent use, building test systems for electromagnetic pulses all over the world. By sourcing wood from local forests, we help you reach a new level of sustainability.

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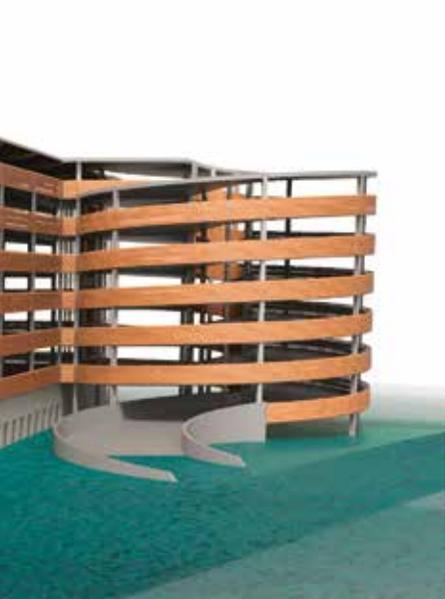
- ↑ «Crossrail» underground station in London, United Kingdom, Foster + Partners
- ↑ Test system for electromagnetic pulses (visual representation)
- Hotel tower (visual representation), Atelier ww Architekten AG
- Parking garage, Häring & Co. AG (visual representation)



## INNOVATIONS OPEN UP NEW CONSTRUCTION PERSPECTIVES

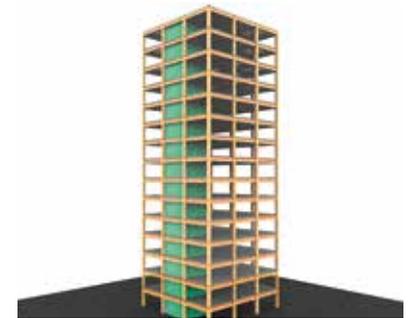
### WOOD ON THE ADVANCE

Our thirst for innovation leads us to research into using wood as a material. Our knowledge of its potential leads us to expand the scope for wooden construction and keep breaking new ground in different directions. Our fields of development include improved earthquake resistance, multi-storey residential buildings, affordable rental options, and lighter-weight, higher-performance materials and connectors. We collaborate with ETH Zurich and Berne University of Applied Sciences on such projects.



### GREENTOWER – HIGH-RISE SYSTEM

The Greentower is a multi-storey residential building based on Flexframe, which makes it extremely quick to erect. Its wooden skeleton provides complete freedom of choice for the floor plans.



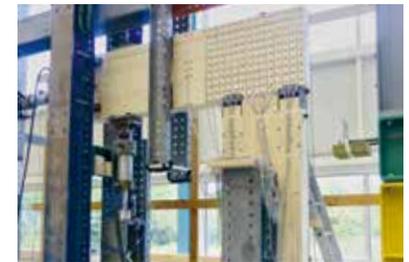
### FLEXFRAME – EARTHQUAKE-PROOF

Tensioned cables with a tensile force of 70 metric tons inside laminate wood beams brace the Flex-frame construction. Pre-tensioning makes the construction more stable and flexible at the same time – the key to withstanding earthquakes.



### CORNER CONNECTIONS – MORE SPACE

Innovative threaded elements connect the supports and beams – removing the need for conventional 45° struts. This rigid-frame corner connector saves both material and space.



### HYBRID WOOD – STRONG AS STEEL

Highly tear-resistant fibres glued between the layers of wood in the beams double their tensile strength. We use this high-performance material in fields that were previously restricted to steel.



### EIKEN, AARGAU

This building in Eiken, which was completed in 2013, is the head office of the Häring Group. This is where your contacts for wooden construction & GC, ATTICO®, real estate project development, halls / support structures and domes are based. Our digital production hall for high-quality wall and ceiling elements is housed under the same roof.



### BURGDORF, BERNE CANTON

Roth Burgdorf AG, a member of the Häring Group, specialises in planning and manufacturing support structures made from laminate wood. The spectrum ranges from straight glued beams used in carpentry right through to complex free forms for construction engineering. Roth is the biggest producer of laminate wood in Switzerland.



## SITES IN SWITZERLAND



### MUTTENZ, BASEL-COUNTRY

Our office in MuttENZ is where we conduct studies for projects, coordinate international projects and develop pioneering ideas. Besides carrying out specific contracts, the staff here work on the Group's input to the latest hot topics such as room planning, closing gaps in urban areas, and energy and resource efficiency.



### ZURICH, ZURICH CANTON

This office handles our ATTICO® projects throughout the canton of Zurich. Our team can inform and advise you from A to Z on adding storeys to buildings, conducts studies for projects and compiles financing plans. This is our control centre for planning and adding extra storeys to buildings.



## EXPERTISE IN GLOBAL DEMAND

### RESOURCE-EFFICIENCY DRIVE

Our strong roots in Switzerland are very important to us. At the same time, global markets play an increasingly significant role, as our future-proof expertise is in demand all over the world. In the face of limited resources, those countries that require a lot of raw materials, such as in Asia, have a particularly strong interest in using new materials and energy-efficient construction methods. Simplicity is also a highly sought-after factor. Wood has a great future ahead, all over the world.



➤ Three carpenters from Bhutan undergo training at the Roth Burgdorf AG plant.

→ Multi-purpose hall, Paro, Bhutan, Häring & Co. AG

↑ The Häring Swiss Wood Structures plant in China



### LONG-TERM FOCUS

Our activities in Asia are aimed at helping this locally-sourced, diverse and ecological construction material make its break-through in the emerging economies. We heavily promote knowledge transfer, as local processing and production offer the greatest advantages to the home country. We work together with local partners in operating the Häring Swiss Wood Structures Tianjin Ltd. production company in China. We have also set up a production site for laminate wood in Bhutan. Besides investments, we also focus on training local skilled workers to create long-term prospects.



## EXCELLENT QUALITY

### ALWAYS ON THE MOVE

For us, quality means continuously developing technology, optimising processes, and training the workforce. At our production facilities in Eiken and Burgdorf, we make ongoing investments to increase efficiency, quality and our range of products. Our keen attention to quality ensures you receive impeccable service at a reasonable price. After all, we're only satisfied with our performance if you are.

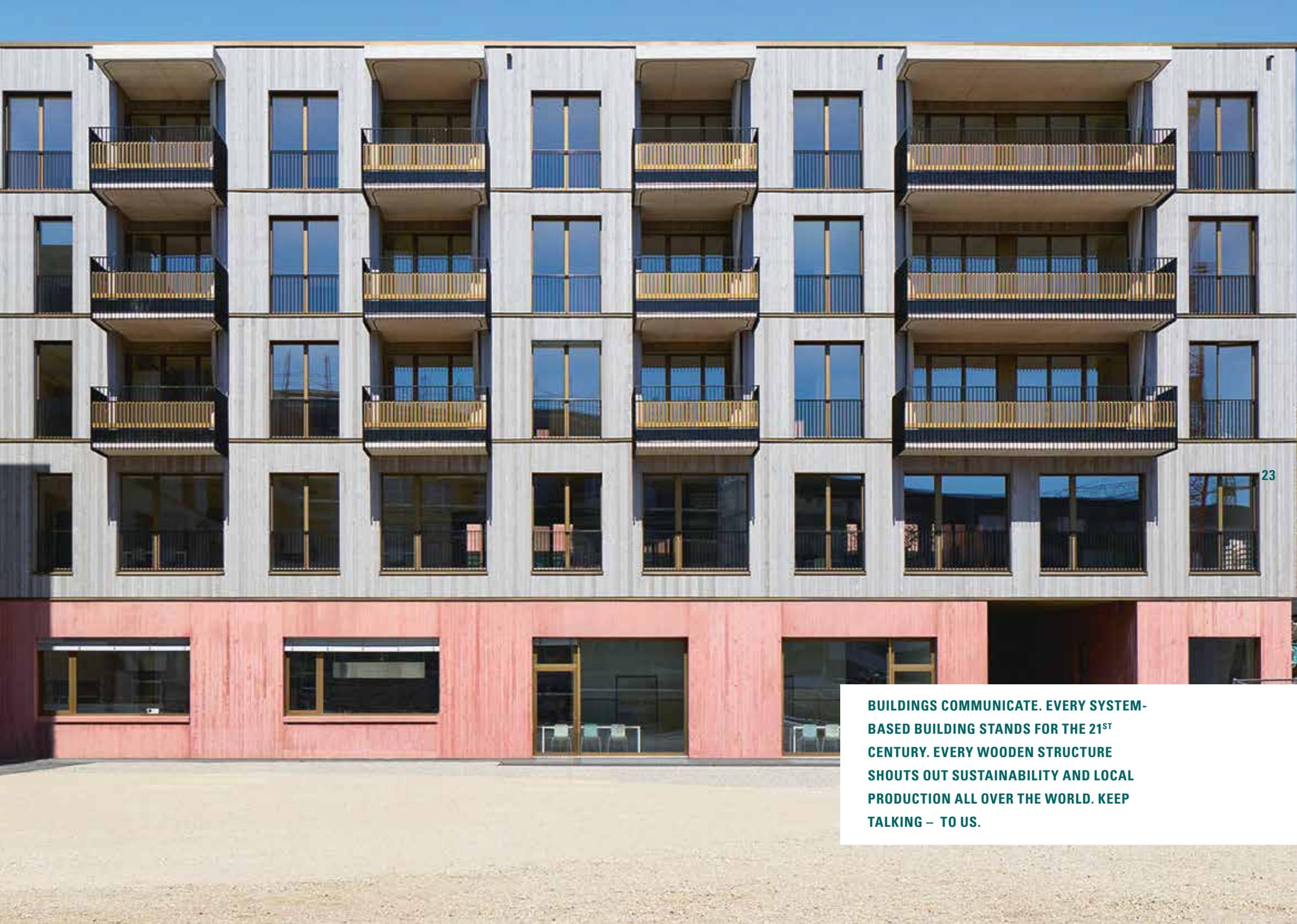
### EXPERT TESTIMONIALS

Independent opinions from professional bodies confirm we are on the right path – such as these two examples of the awards that we have received. We were honoured to accept the prestigious Schweighofer Prize for innovation in Vienna for the ETH House of Natural Resources, based on the Flexframe. The same project also won the Prix Lignum special national award for hardwood.



Schweighofer Prize and Prix Lignum – two separate awards for the ETH House of Natural Resources, based on Häring's Flexframe.





**BUILDINGS COMMUNICATE. EVERY SYSTEM-BASED BUILDING STANDS FOR THE 21<sup>ST</sup> CENTURY. EVERY WOODEN STRUCTURE SHOUTS OUT SUSTAINABILITY AND LOCAL PRODUCTION ALL OVER THE WORLD. KEEP TALKING – TO US.**

**HARING.CH**

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