



Conversation

The Bern-based architectural practice Atelier 5

Business

“Just like people, wood is stronger together than alone”

Roth Burgdorf AG

Research & Development

Concrete and steel barking up the wrong tree

Studying and conducting practical research in timber construction at BFH-AHB in Biel/Bienne

Living & Tourism

Scaling new heights in speed and sustainability

Bergbahnen Destination Gstaad AG transforms visitor experience

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Dear reader,

Ever felt you couldn't see the wood for the trees? Well, we hope that won't be the case in this issue of bernecapitalarea, as we shine the spotlight on this wonderful material. Wood (or timber, as it's known in the construction industry) is right on trend at the moment, gaining increasingly in popularity and reputation as a construction material.

Take the Bern-based architectural practice Atelier 5, for example, which is using this natural resource more and more often in its designs – firstly because of the benefits its properties bring to the climate inside the building, and secondly because of its excellent environmental credentials. In our interview on page 4, the partners in this unconventional, multiple award-winning collective reveal some of the innovative large-scale projects they are working on.

The rediscovery of wood as a construction material has come about in part as a result of some brand new technologies. These don't just fall from the sky. They are the product of painstaking collaborative development work, a lot of which takes place at the Bern University of Applied Sciences in Biel/Bienne. A veritable mecca of wood engineering, BFH-AHB is also the largest research center for the Swiss wood industry – as it has been for more than 66 years. Researchers, students and private sector partners work closely together in its Wood Department, and their results are nothing short of groundbreaking, as you'll read on page 12.

Follow us on our journey in this issue of bernecapitalarea to discover how wood is conquering the world of construction.

I hope you will find it a fascinating read.

Dr. Sebastian Friess, President
Bern Economic Development Agency

“Inspired by Bern”

A conversation with Atelier 5

Being based in Bern has had a positive impact on the development and creative work of Atelier 5, with wood playing a major part in its current projects. The five partners in this Bernese architectural practice together explain why.

Atelier 5 has been located in the former Ryff knitwear factory in Bern since 1956. Why is it that your ideas and designs can flourish so well in Bern?

“In the 1950s and 1960s, Bern was a cultural hotspot in Switzerland. Artists such as Rolf Iseli, Bernhard Luginbühl, Lilly Keller, Markus Raetz, Balthasar Burkhard and many others marked a new departure. In addition, a former student of Le Corbusier, Hans Brechbühler, with whom four of the five founding members of Atelier 5 had worked, was one of the main Swiss architects of the New Objectivity movement in Bern. It was in this environment that Atelier 5 was founded on 5/5/1955 by five young architects who would go on to create the Halen Estate along with many other projects.”

Talking of Bern, your famous Halen Estate, which was built in Herrenschwanden near Bern in 1962 and was regarded worldwide as a groundbreaking example of post-WWII housing estate design, was inspired primarily by Le Corbusier, but also by the Old City of Bern. In what way?

“Bern’s Old City didn’t develop organically but was laid out on a planned grid. The founding fathers designed a layout with narrow plots, based on the building techniques that were available at the time. This pattern served as inspiration for the Halen Estate’s strict order, its long, thin floor plans and its characteristic elements such as the arcades.”

How does your working method differ from that of other architectural practices, and what do you think makes your model work so well?

“In some practices there are often one or two figureheads whose style and ideas dominate the architecture. Our partners and staff see themselves as groups of people who work on Atelier 5 projects in different teams without individual authorship playing a dominant role. The practice always comes first. So we never name the actual creator of a building in public, for example. This way we can ensure continuity in our work and our practice.”

How relevant is wood as a building material in your current projects?

“As early as in the 1960s, Atelier 5 built a church in Flamatt and a holiday home in Zofingen predominantly out of wood. Wood is becoming increasingly important in the work we do. We are currently designing a live/work building with 84 apartments made almost exclusively of wood in Munich, and we are building an apartment block on Lothringerplatz in Basel with a wooden façade.”

“But we have always used a wide variety of materials. Concrete always has been and still is a very important building material for us, for example.”

What is it about wood that you particularly appreciate?

“One excellent feature of wood is the low proportion of ‘grey energy’ it embodies, or the amount of energy required to produce, store, transport and dispose of it. It is also ideal for prefabrication, so you can shorten the build time by using wood. And it is relatively easy to achieve good thermal insulation values with wood.”

“The Halen Estate is inspired by the Old City of Bern.”

About the practice

Atelier 5 was founded in Bern in 1955 by five young architects and is now managed by five forth- and fifth-generation partners. Its prototypical buildings and urban development projects, such as the urban spatial design concepts for Bümpliz, Bern-Bethlehem and Hamburg’s Hafen-city are characteristic of its work. Key features are the fact that Atelier 5 identifies as a collective and that work takes place in a dialogue within teams of partners, employees and experts such as engineers, lawyers, geographers, sociologists and traffic planners. Among Atelier 5’s major new construction and renovation projects in the Canton of Bern are the National Bank, the Bern Museum of Fine Arts, the railway stations in Bern and Biel/Bienne, the Swisscom Business Park and the world-famous Halen Estate.



"We enjoy the privilege of using our multifaceted approach to create something that will endure and offers people added value."
Gabriel Borter, Gianni Chini, Peter Breil, Franco Petterino and Florian Lünstedt of Atelier 5 outside their office in Sandrainstrasse, Bern.

For the building users, having bare wood in the room has the advantage of absorbing moisture and releasing it again, which has a positive effect on the living climate."

Your designs have had a significant impact on the cityscape in Bern, such as the Museum of Fine Arts or the railway station. Is there a particular architectural signature that is expressed in all your designs?

"Our projects are always based on a detailed examination of the situation at hand and the functions of the facility the client wants. And always with the focus on people and their needs. So you won't necessarily be

able to identify a signature in the sense of a similar use of materials or façade design. But the fact that our approach is always the same becomes evident on closer inspection. For example, we meticulously explore the relationship between the private interior space and the shared exterior space in every project. At the same time, we always understand large dimensions as a structured combination of scaled parts. Our aim is to produce enduring buildings which users will continue to get pleasure from for many years and whose qualities can be rediscovered time and again."

Information
www.atelier5.ch

“Just like people, wood is stronger together than alone”

The glued laminated timber structures of Roth Burgdorf AG

Wood plays a defining role in the urban space in and around Bern's central station. Roth Burgdorf AG Managing Director Franz Lenherr explains why and reveals what challenges had to be overcome in this major project.

In the *Welle* (Wave), you have created an instantly recognizable feature in the Bern cityscape. What was the thinking behind the wave-shaped timber platform roofs?

“We wanted the new western access to Bern's central station, which was added in 2004, to create a striking link, visible from afar, between the tracks and the street level. The curved, transparent roofs of the *Welle* elegantly follow the slope of the adjacent bridge and point the way to the rails below, making it easier for passengers to find their way around. The light-colored wood has a warm feel to it, which makes a welcome contrast to the otherwise quite cold, gray station environment. The natural material we used is reminiscent of wooden railway ties and the traditional wooden houses of the Bernese Oberland.”

What special challenges did this major project present you with?

“The first major challenge was the tight schedule. As the extension of the platform facilities was linked to the federal government's Rail 2000 project, we only had around 14 months within which to build the *Welle*. Train services could not be disrupted so we were restricted to working at night. Secondly, because of the complex geometry of the building we had to use state-of-the-art CNC technology.”

Why was the use of CNC technology essential for this architecturally complex timber structure?

“It enabled us to prefabricate the different lengths of the curved glulam roof beams in approximately 20 meter long sections in our production hall and assemble them accurately on site within a short space of time. Conventional manual joinery is very uneconomical and impracticable when you are making curved or bent freeform designs, as with the *Welle*. So we upgraded our machine pool with a state-of-the-art CNC system that can produce all the components precisely using the data generated and process large, identical series very quickly and with great accuracy. We are currently in the process of installing a second CNC system for bar-shaped components, which will be ready for use shortly. At present we can supply ready-to-install arched beams in lengths of up to 40 meters, giving virtually free rein to the design.”





Visually, the Welle with its flowing, dynamic lines echoes the Aare River loop and the daily flows of up to 50,000 commuters at Bern's central station. The timber bridge connects the extended platforms with the city.



"Structures made of straight or curved glulam allow virtually free rein in design."
 Franz Lenherr, managing director of Roth Burgdorf AG, in the company's new 8,000 m² production hall in Burgdorf.

Are you seeing a rise in demand for timber buildings?

"Definitely. More and more clients, planners and architects appreciate the outstanding material properties of wood. We have doubled our annual output over the past 15 years. Every day we produce around 80 to 100 m³ of glulam timber, almost all of which is sourced in Switzerland. To meet the growing demand, in 2012 we expanded our production hall, mechanized our processes, and installed a new CNC machining center with a machining area of 5.5 × 48 m. We have also created ten additional jobs since then. Our central location on the border between German- and French-speaking Switzerland and near the motorway is extremely convenient for us as it allows us to supply our customers fast. And importantly, we have no problem finding enough highly trained and motivated staff here in Burgdorf and the surrounding area."

"Every piece of wood is different – just like every person."

Why is wood your building material of choice?

"Wood is a phenomenal material because it is extremely strong, lightweight, resistant to chemicals and an excellent insulator. In a fire, a timber beam chars on the outside but remains intact and therefore stable on the inside. Wood stores CO₂ and is an environmentally-friendly building material, especially when you only use formaldehyde-free adhesives, as we do. What's more, wood is a fantastic source of energy and a renewable natural resource with its own individual character that can be made into a wide variety of products. Every plank, every piece of wood, is different. Just like every person. And just as people are stronger together than alone, so too is glulam wood stronger than unglued wood. And that's one of the reasons why I get so much pleasure out of planning and producing glulam structures every day."

Information

www.rothburgdorf.ch

Switzerland's largest glulam manufacturer

Roth Burgdorf AG specializes in designing, calculating and manufacturing timber supporting structures. Produced with millimeter accuracy, its wooden components – glued in layers, curved or straight and up to 40 meters in length – are used both in conventional joinery and carpentry and in individual complex engineered timber structures. A subsidiary of Häring & Co AG, Roth Burgdorf is the largest manufacturer of glulam in Switzerland and employs 35 people at its Burgdorf base.

Bridging the generations in high-tech timber construction

Form follows function at Hector Egger Holzbau AG

What technologies, tools and traditions have turned Langenthal-based Hector Egger Holzbau AG into one of the most successful timber construction companies in Switzerland? CEO Paul Schär and his son and deputy Michael Schär explain.

Paul Schär, CEO of Hector Egger Holzbau AG:

"My father was a carpenter, so even as a young boy I was fascinated by wood and was always building things with it. After qualifying as a master carpenter, I joined Hector Egger AG, as it was then, in 1983 and was appointed Head of Timber Construction in 1992.

Own software

I took over the timber construction division as part of a management buy-out in 2001 and started developing our own cloud-based timber construction quotation software. This then led to the establishment of our IT subsidiary, contra GmbH, in 2005. 'bauoffert' is now our most important acquisition, marketing and preproduction tool. With our software we can calculate a single-family detached house in 2 to 3 hours or a large project in just a few days. The program can also produce 3-D drawings of the individual components and handles all subsequent aspects from the quotation to the contract for work and services and workforce timekeeping log to the final costing and billing. This enables us to work out

the cost of every project in real time and to take action straight away if necessary, and it also gives us access to our projects and data from anywhere.

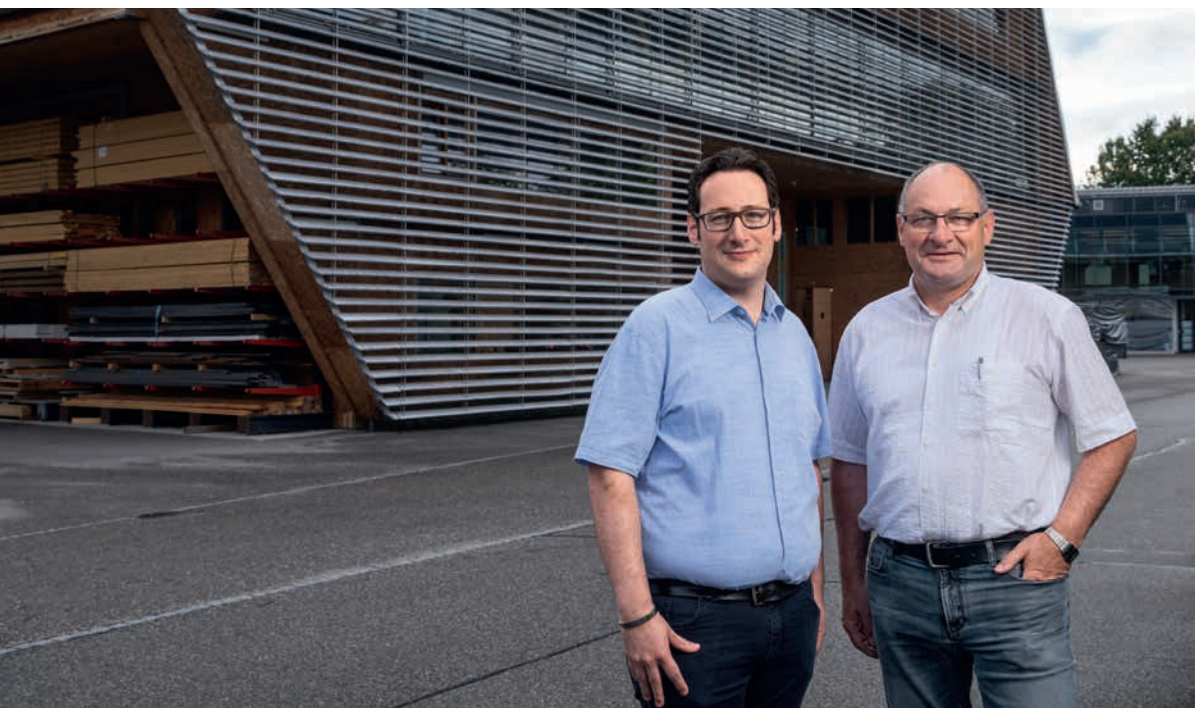
Dream house in next to no time

Among the technologies and tools we use, some of which we developed in-house, is an innovative, five-axis CNC beam processing center, allowing us to engineer beams individually. We also use a fully automatic CNC multifunction bridge, which produces wall, ceiling and roof components that then go on to be assembled kit-style into a finished building on site. Based on our 3-D drawings, our machine can mill, drill, glue, nail, and screw all the doors, windows, and power sockets directly via glass fiber cable. In fact, we prefabricate up to 80 percent of all the components

"We build a single-family house in just one day."

Paul Schär

of our timber frame structures. At the end of the production chain, the prefabricated components are then loaded onto the transport pallets in exactly the right order. Thanks to the accurate loading plans we produce, our carpenters on site always know exactly which component has to go where. With such a high



"Our two timber multifunction production buildings contain many architectural refinements that improve logistics, the indoor climate, energy efficiency, and communication. And our photovoltaic panels on the roofs generate 30 percent more electricity than we use ourselves."

Michael and Paul Schär



The superstructure of Neumatt Bridge is made of untreated glulam (glued laminated) natural timber beams consisting of 3–4 cm thick laminations and bent into shape during the bonding process. The bridge is a truss design with a span of around 65 meters which rests on two abutments, eliminating the need for complex concrete river piers.

level of preproduction (see box on the Neumatt bridge), we are able to assemble a single-family detached house in just one day. And it took us less than three weeks to build our new production facility WERK I, which we moved into in 2003. Measuring 82 m in length, 30 m in width and 15 m in height, it was the first ever wooden factory building of this size to be certified to the Minergie energy standard.”

Michael Schär, Head of Communications and Deputy CEO:

“Today we are one of Switzerland's leading timber construction companies, with annual turnover of around CHF 30 million and just under 80 staff. To date we have trained more than 50 apprentice carpenters and have helped many technical college graduates and career starters on their way to a promising career in timber construction. I took an apprenticeship in carpentry myself, and while I was studying timber construction engineering at the

BHF-AHB in Biel/Bienne I worked in my father's business and brought in several projects of my own, such as the Langenthal Winter Cinema.

Design hotspot

Our company has regularly played host to Designers' Saturday since 2006, and my father has served on the management board of this famous biennial design event since 2007. With its many innovative, world-class businesses, our Oberraargau region – and Langenthal in particular – are



**A timber construction masterpiece
by Hector Egger Holzbau AG**

Neumatt Bridge has connected the towns of Burgdorf and Kirchberg since 2013. Switzerland's longest free span timber bridge weighs 116 tonnes and comprises 5,160 individual parts made from 200 native hardwood and softwood trees. The 65.9 meter long, 5.7 meter wide covered bridge for pedestrians and non-motorized traffic was lifted into place over the river Emme with absolute precision by a 1,200 tonne crane in just 1 hour 45 minutes. The team from the Canton of Bern – Hector Egger Holzbau AG, Arn + Partner AG, Marchand + Partner AG and Ingenta AG Ingenieure + Planer – saw off 26 competitors from across the world with their outstanding design.

unique in the design world. Our company was established in 1848 by Hector Egger, an architect himself, who went on to transform it into a brand of international renown. With his workers' estates and more than 150 industrialists' villas, Hector Egger wrote architectural history and made a name for himself for his constant willingness to experiment with new techniques. It's a tradition that we continue today. Our visitors' gallery – which is not only open on Designers' Saturday, incidentally – extends all the way round our two production facil-

ities. This 400 meter long walkway situated 5.8 meters above floor level gives visitors an excellent view of our entire logistics process. On one single Designers' Saturday weekend we gave a live demonstration of our high-tech timber construction to a massive 16,000 visitors!"

Information

www.hector-egger.ch

www.designersaturday.ch

Concrete and steel barking up the wrong tree

Studying and conducting practical research in timber construction at BFH-AHB

Close cooperation between industry and Architecture, Wood and Civil Engineering degree courses is producing major innovations for the timber construction industry. One example is the groundbreaking TS3 technology, which is currently being tested on the TS3 endurance test stand.

What is the most efficient way to implement ideas and projects relating to wood? This is exactly what more than 100 researchers and 222 bachelor's and master's students studying wood engineering at the Bern University of Applied Sciences (BFH-AHB) in Biel/Bienne are looking into. And importantly, they are also transferring knowledge into practice. Their findings, technologies and products are benefiting companies in the timber industry both at home and abroad.

State-of-the-art technologies and teamwork

The University of Applied Sciences boasts a technology park that is unique in Switzerland, equipped with everything from its own sawmill and a range of testing facilities to modern CNC and robot technologies. It enables interdisciplinary teams of undergraduates and graduates specializing in architecture, wood and civil engineering and representatives of industry to regularly produce and test groundbreaking innovations for the processing, application, and development of wood.

Practical trial with industrial partners

One such test object was inaugurated at the BFH-AHB in Biel/Bienne in May. It is known as the TS3 endurance test stand as it was produced with the revolutionary TS3 technology (see box on page 15). To the uninitiated, the test stand looks like a simple wooden shelter, consisting of a floor slab supported on four screw-in foundations, a wall, two columns, and a roof. Those in the know, on the other hand, will wonder how the structure manages

Timber construction

"Wood is just a one-syllable word, but behind it lies a world full of beauty and wonder!' I totally agree with this statement by Theodor Heuss. Even as a young boy I often used to make and build things with wood. After studying civil engineering, I wrote my thesis on timber construction and ever since then I have found this material much more exciting than concrete or steel, as it is much more complex and therefore more sophisticated. One of the focal areas of my research these days is developing and optimizing timber supporting structures and joints, which is why I found the development of a two-axis supporting flat floor structure made of wood – as in the TS3 endurance test stand project – so exciting." **Steffen Franke, Professor of Timber Construction and Statics**





The TS3 system and its innovative adhesive casting joint technology has been tested and clearly presented on the test stand in the inner courtyard at BFH-AHB in Biel/Bienne since May this year (in the picture: Steffen Franke).

without supporting beams, floor joists and a third wall. The answer: it's done with the revolutionary TS3 adhesive casting technology, in which timber panels and staves are glued together.

What are the benefits of this new adhesive casting technology?

Steffen Franke, Professor of Timber Construction and Statics: "The roof of the endurance test stand consists of eight triangular components made of laminated spruce butt-joined at the end faces at different angles using a two-component polyurethane adhesive. That may sound complicated, and the structure itself is complex, but it allows huge scope for aesthetic design. This new casting technology, without which none of this would have been possible, has enabled us to rigidly bond the bracing wall straight onto the floor slab at a miter angle of 45 degrees, which means

that this one wall can brace the entire structure on its own. In the past, at least three walls were needed for this."

What kinds of things will you be testing and researching on the TS3 endurance test stand?

"In our research project we are currently testing the recently patented TS3 technology for aspects such as changes in humidity, long-term loads, bending strength of the butt end joint and fire reaction. Our results to date confirm that it is possible to construct flat timber floor slabs with a column grid of up to 8 x 8 m and a payload of 500 kg/m²." The test stand is also demonstrating and testing the application of flat supporting timber slabs which can be used as floor systems or even as complete timber frame structures for residential, commercial and industrial buildings. This floor system, which we developed in co-

operation with Timbatec AG, Timber Structures 3.0 AG, Schilliger Holz AG, ETH Zurich, and Henkel & Cie. AG, consists of flat timber slabs glued at the end face and carries the vertical loads biaxially. We are investigating and testing the behavior of the test stand's floor slab, which is permanently loaded with 12 tonnes, as well as that of the entire supporting structure.

"The TS3 endurance test stand will be tested in the inner courtyard at BFH-AHB in Biel/Bienne over the next two to three years. After that I could well imagine it going to our new location at the Biel/Bienne 2022 Campus, where it could be used as an exhibition or event pavilion or the like."

Information

www.ahb.bfh.ch

"Wood is more complex than concrete and steel."

The City of Bern was the partner municipality of the BFH-AHB Architecture Department in the spring 2018 semester. The students' work was on display in a temporary poster exhibition entitled "Visions and Projects for Bern East" at Freudenbergplatz in Bern up to the end of August and examples were also pointed out on various guided walks around the city.



“Transforming the way we think about building”

Timber Structures 3.0 AG in Thun banks on high-rise buildings from wood

Today, even multistory residential, administrative, commercial, and industrial buildings can be built entirely of timber. Stefan Zöllig, timber construction engineer, managing director and co-owner of Timbatec Timber Construction Engineers Switzerland Ltd. and Timber Structures 3.0 AG reveals more.

We are in one of the four apartment buildings in Grossaffoltern which are being built using your innovative TS3 technology (see box). What benefits does it bring in these buildings?

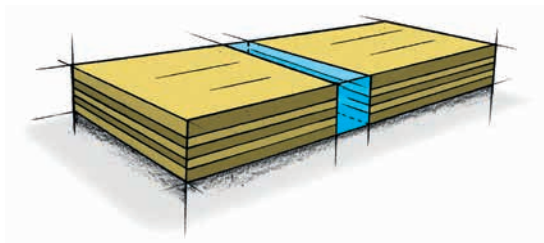
“The biggest benefit is the flexibility it offers in terms of the internal layout of the building. As you can see, the floors and ceilings are completely flat instead of being stabilized with beams and joists. The new technology does away with the need for those, giving you complete freedom of choice as to where to locate the columns supporting the floors. This means that the wiring and pipework below the floors can be laid in any direction at all. Because

“Radically simplifies the engineering, very economical to install.”

no steel or reinforced concrete was used in the slabs, as would normally be the case in buildings like these, they were dry and able to withstand loading straight away. The use of TS3 technology made them very economical to install and radically simplified the pre-construction engineering.”

Why do you build with wood in preference to concrete?

“In terms of energy consumption and CO₂ emissions, reinforced concrete is by far the most environmentally harmful building material to produce. There are materials that are even more harmful, of course, such as steel and aluminum, but they aren't used in anything like as massive quantities as concrete. The cement industry accounts for no less than nine percent of global CO₂ emissions – that's more than the amount generated by the world's entire aviation sector, for example.



A revolution in timber construction

With **Timber Structures 3.0 technology (TS3)**, timber components can be rigidly joined at the butt end, allowing beams and slabs of any shape and size to be produced. This groundbreaking world first was developed by Timber Structures 3.0 AG in close collaboration with BFH-AHB Biel/Bienne, ETH Zurich, Purbond AG, Henkel & Cie AG, Schilliger Holz AG and Stuberholz AG. Stuberholz AG is a partner in the first large-scale TS3 development and is also the principal and general contractor for the four apartment buildings in Grossaffoltern. TS3 enables multi-story column and slab structures to be erected with a column grid of up to 8 × 8 m and a 500 kg/m² payload.



“With our technology the market share of wood in multistory buildings could rise from 6 to 50 percent.” Stefan Zöllig



Lightweight construction with TS3 technology: the multiaxial-bearing, shallow timber ceilings for the four apartment buildings in Grossaffoltern in the Canton of Bern were prefabricated in transportable dimensions and glued on site by way of a casting joint.

Wood, on the other hand, doesn't harm people or the environment, either in the production process or when used in buildings. Quite the opposite, in fact: forests absorb CO₂ and produce oxygen at the same time, they are a habitat for plants and animals and they provide us humans with a place to relax and spend our leisure time. If we only use sustainable wood – which is a legal requirement in Switzerland – we can go on using the forest as a clean and highly productive 'factory' forever. Every year, 10 million cubic meters of wood regrow, all of which we ought to be able to harvest and use for building purposes. That volume of wood would be enough for all the new buildings built in Switzerland every year."

You work closely with the Wood Department at the Bern University of Applied Sciences. What do you appreciate most about this relationship?

"I have travelled extensively in Europe, Canada and the USA in recent years, and everywhere I went I met outstanding engineers who had studied at BFH-AHB in Biel/Bienne. At universities of applied sciences abroad I would often hear people speak appreciatively or even slightly enviously about how unique our university is in the world. I don't think we really appreciate that here. Almost all the engineers and technicians at Timbatec AG studied at this university. What's more, since 1997 we have trained over 60 interns from BFH-AHB, which is something both parties benefit hugely from. The input and feedback we receive from them

keep on bringing us new ideas. As a company, it is important to institutionalize this input and make it available to all our staff. This enables us as a company to grow on all levels."

Is there a particular building challenge you would like to tackle with your new key technology?

"At the moment there is a competition running to build the highest timber building in the world, and participants are outdoing each other with a host of grand announcements. The 18-story Brock Commons student residence in Vancouver, which was completed in 2017, is currently the tallest timber building in the world. I have visited it several times and I'm a huge fan of its exemplary timber structure and the special column and slab design which has no load-bearing walls or supporting beams. It's exactly the same technology as we use at TS3. The chief timber construction engineer, Bernhard Gafner – who, incidentally, is from Bern and is also an alumnus of the BFH-AHB in Biel/Bienne – told me that if he had had TS3 technology at his disposal earlier on in the project, he could have eliminated two thirds of the columns and come up with a much more flexible floor plan. My vision is to use our technology in similar buildings. But they don't necessarily have to be high-rise."

Information

www.timbatec.com
www.ts3.biz

Scaling new heights in speed and sustainability

Bergbahnen Destination Gstaad AG transforms visitor experience

With its new, high-performance gondola lift and a host of other innovations, Bergbahnen Destination Gstaad AG is looking to attract even more visitors to the Bernese Oberland. The company's CEO, Matthias In-Albon, explains how.

How will your new gondola lift help keep Gstaad topping the international league table of pleasure and skiing destinations?

"With our new gondola lift and the innovative technology featured in it (see box), we have brought a premium product to Saanenland that meets the highest standards in terms of design, safety and comfort. However, this world first is just one element among many that go to make up a coherent overall image.

Another major factor in our visitors' choice of ski resort is guaranteed snow cover. Over the past 2 years we have invested more than CHF 10 million in expanding and upgrading our snowmaking facilities. When we have the perfect cold, dry conditions we can now provide snow cover efficiently throughout the whole resort in just a few days. We have also upped our game on the catering front and have renovated and rebuilt as many as six restaurants over the past two years. Instead of basic catering, we want to offer our visitors a real culinary experience here in the mountains."

"Wood is to Gstaad what skyscrapers are to New York."

How much of an improvement will the new Saanenmöser-Saanerslochgrat gondola lift be for winter sports visitors over the old one?

"Our new lift will whisk visitors up to the pistes even more quickly and more comfortably than before. The previous lift was built in 1979 and at the time was one of the first 6-seater gondola lifts in Switzerland. After almost 40 years the doors were no longer closing properly and the journey over the 29 supporting towers along the route had become rather bumpy. The new lift only has 16 towers, its modern, comfortable 10-seater cabins are more spacious, there is step-free access into the cabins at the mountaintop station, and the journey time has been cut by a third to around just 10 minutes. We can now carry almost twice as many people as before. What's more, the new system is quicker and easier to maintain."



"It's thanks to strong partners such as the Bern Economic Development Agency that we've been able to bring this ambitious project that's so important to the region to fruition in such a short space of time." Matthias In-Albon, CEO of Bergbahnen Destination Gstaad AG

The new first-class gondola lift

The **Saanenmöser-Saanerslochgrat gondola lift** is equipped with innovative "D-Line" cableway technology from the Austro-Swiss company Doppelmayr-Garaventa, featuring designer glass station roofs and specially designed low-noise, low-vibration components. The 69 cabins can accommodate 10 people each and ascend 675 meters on the journey from Saanenmöser to Saanerslochgrat. Traveling at a speed of 6 meters per second, the gondola lift, which will open in time for the 2018/19 winter season, can carry 2,000 people per hour.

Precision logistics and expert organization were called for on the construction site with its panoramic view above Saanenmöser in order to meet all the challenges of building the new Saanenmöser-Saanerslochgrat gondola lift.



The new mountaintop and valley stations are made predominantly of wood. Why did you choose this traditional material?

“Just as skyscrapers dominate the New York skyline, so too is the archetypal wooden chalet architecture typical of Gstaad. It’s what gives our region its authentic charm and local character. By adopting the typical wooden chalet style for the eye-catching timber beams in the mountaintop and valley stations, we believe we have

made the complex fit seamlessly into the local landscape at Saanenmöser. Sustainability plays a key role in the way we think and work. That’s why the large, light-flooded pitched roof of the valley station is equipped with a high-performance photovoltaic system and why we have chosen wood – a local renewable material – as the main design element.”

What new facilities and services will you be offering visitors in the upcoming winter season?

“Last season we got together with Meiringen-Hasliberg, the Jungfrau ski region, and Adelboden-Lenk to launch what has already become a hugely successful joint ski pass for all the ski resorts in the Bernese Oberland at a very attractive price. This winter our ‘Top-4’ ski pass is set to enter its second season. We will also be continuing to pursue our invest-



ment strategy on a sustained basis. So, for example, we will be building a new gondola lift and mountaintop restaurant at Eggli, with work planned to start in spring 2019, and we will be continuing to optimize our snowmaking facilities over the next few years. Our aim is to attract even more visitors to our valley, which may not have the spectacular peaks of the Matterhorn or the Eiger but still boasts exceptional scenery. We want to offer our visitors just as great an experience that will

send them away with lasting memories. That's not easy under these circumstances, but it is definitely doable!"

What appeals to you most in your role as CEO of Bergbahnen Destination Gstaad AG?

"I get to work in an amazingly diverse and exciting industry. I love the challenge of getting our company back on its feet after being on the brink of collapse just three years ago. Our earnings have improved

significantly since 2015. But if we can't continue to grow our profits, the restructuring we carried out in 2016 will come to nothing. The new gondola lift will be a big step in the right direction."

Information

www.gstaad.ch/bergbahnen
www.top4.ski

Showtime at the Langenthal “Dream Factory”

Unique cinema experience at the Winter Cinema in Langenthal

For 4 days in the last week of the year, Hector Egger Holzbau AG transforms its factory building into Switzerland's biggest cinema with 750 seats, the latest digital technology, a bar and a varied supporting program.

“The Winter Cinema is a unique cultural occasion. Since 2009 we have been showing films in precisely the spot where we would normally be manufacturing our timber components,” says Michael Schär, initiator and project manager of the Winter Cinema and deputy CEO of Hector Egger Holzbau AG. “This year marks the tenth time in succession that we have set up a temporary cinema fantasy world here in our factory. The 82 m × 30 m building, which is made entirely of wood, is well heated, and we transform the interior with magical light installations and a bar selling delicious grilled foods, popcorn, ice cream and drinks.”

itive experience we gained with Designers' Saturday, for which we have been opening our doors to the public regularly since 2006. Alongside eight up-to-the-minute films in different genres for all ages, which we show completely ad-free, we also feature live talks by actors who share their experiences on set. In addition, we stage an annual props and costumes exhibition from the Someprops Movie Collection. In 2017 we had more than 4,600 visitors to our ‘Dream Factory’!”

Information

www.winterkino.ch

Live talks and costumes exhibition

Hector Egger Holzbau AG has been the main sponsor of the Langenthal Summer Cinema since 2004 and also supplies and builds the wooden screen structure. “The success of our Summer Cinema inspired me to organize a second cinema event in Langenthal in the winter – at the heart of our business, in Switzerland's first timber factory building of this size to be certified to the Minergie energy standard,” Michael Schär says, looking back at the early days. “Another motivating factor behind this unusual cinema event was the pos-

About the Winter Cinema

The 2018 edition of the **Winter Cinema** will take place in WERK I at Hector Egger Holzbau AG in Langenthal on December 27–30. A winter highlight of the Oberaargau cultural scene since 2009, the cinema event is run by a dedicated team of staff and friends of Hector Egger Holzbau AG. More details of the films and supporting program for 2018 can be found at www.winterkino.ch.



From factory building to picture palace: in the last week of December every year Hector Egger Holzbau AG transforms its WERK I into a huge temporary wooden cinema.

Win day tickets for the Bergbahnen Destination Gstaad cableways

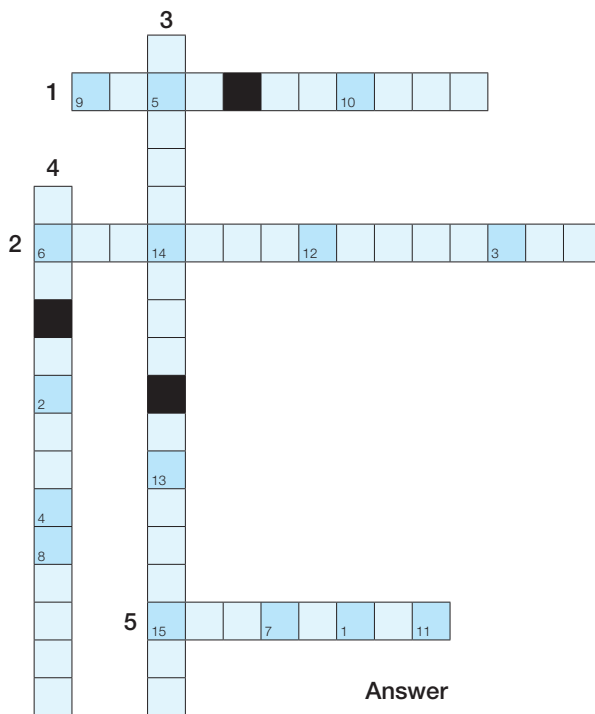
Welcome to our winter sports resort: www.gstaad.ch/bergbahnen

Take part in our competition and win two cableway day tickets for the entire Bergbahnen Destination Gstaad AG winter sports area. The tickets are valid for two persons in sector 1 – Zweisimmen to Rougemont (excluding Glacier3000) – and can be redeemed on a date of your choice during the 2018/19 winter season. Discover the Bernese Oberland in its diversity by lift and gondola: around 30 cableways give you access to 200 kilometers of pistes, various toboggan runs and a range of winter hiking trails and whisk you up in comfort to cozy mountain restaurants with breathtaking views of the surrounding panoramic mountain peaks.



Taking part couldn't be easier. Simply find the answers to the clues and enter them in the appropriate places in the grid to find the mystery word. Send the mystery word along with your completed entry form to the address below by February 28, 2019. You can also enter online at www.berninvest.be.ch/chance.

Tip: Every word relates to a subject covered in this issue of bernecapitalarea. Good luck!



1. Location of BFH-AHB
2. The new Bergbahnen Destination Gstaad AG gondola lift travels from Saanenmöser to ...
3. Hector Egger Holzbau AG has been one of the venues for this design event since 2006
4. Innovation by Timber Structures 3.0 AG
5. The Langenthal Winter Cinema takes place at the end of ... every year

Answer

1	2	3	4	5	6	7
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8	9	10	11	12	13	14	15
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Name: _____ Address: _____

Telephone number: _____ E-mail: _____

The winner will be drawn by lots and notified in writing. Employees of the Bern Economic Development Agency are excluded from entering the competition. The judges' decision is final. There is no cash alternative to the prize.

Tear out this page and send it to this address by February 28, 2019.

Bern Economic Development Agency, Münsterplatz 3a, P.O. Box, CH-3000 Bern 8, or enter the competition via www.berninvest.be.ch/chance.

Congratulations to Patrick Kissling of Kestenholz, the winner of our competition in bernecapitalarea 1/2018.

New arrivals in the Canton of Bern

New companies in the Biel/Bienne region

The Bern Economic Development Agency helps innovative international companies with their decisions to relocate and settle in the Canton of Bern – like Web Financial Group Switzerland AG and Neolido Technology SA.



WebfinancialGroup

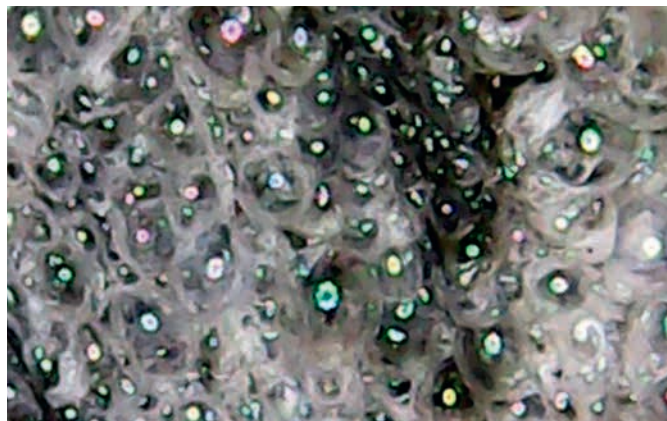
Web Financial Group Switzerland AG moved into its new premises at Zentralstrasse 46 in Biel/Bienne in June this year. Banks and other financial service providers use the company's digital financial data solutions to provide private investors with tailor-made services for investment decisions via the internet and smartphones on platforms such as cash.ch, tradedirect.ch and money-net.ch. Web Financial Group Switzerland AG, which was established in March this year, took over Biel/Bienne-based SIX Financial Information AG's Solutions division along with around 40 customers and several employees. The fact that SIX Financial Information AG was already based in Biel/Bienne was its main reason for locating there.

The 8-strong team in Biel/Bienne headed by Managing Director Alain Binggeli acts as an interface between business and IT and starts by advising its customers on how to put together an optimal offer. It then develops customized solutions jointly with a team of developers in Madrid and operates them with 24/7 customer support from a data center in Zurich.

Web Financial Group AG, which was founded 18 years ago, is headquartered in Madrid and employs 170 people worldwide. Its base in Biel/Bienne boasts excellent traffic links and is a strategically ideal location for the company, which is planning to take on several new staff members there by the end of the year.

Information

www.webfinancialgroup.com



Neolido Technology SA has been based in Biel/Bienne since February this year. Hooman Davoudi's team of researchers have succeeded in developing a compound of minerals that crystallize under the influence of heat. These crystals, called Krysolit®, can be used in areas such as fire-fighting and energy transmission and can serve as environmentally friendly solutions for a wide range of applications, including in shipbuilding, construction, civil defense, aviation, the armed forces, and the chemical and electronics industries. In tandem with its first customer in France, the startup has already launched its first industrial application: a unique fire-resistant wooden door, the first of its kind anywhere in the world.

To guarantee mass production of this world first and future innovations, Neolido Technology SA is building a manufacturing facility for Krysolit® crystals in Biel/Bienne. The company plans to have 10 people working in research, development and manufacturing in the new 2,500 m² factory from January 2019 and intends to hire around 80 more people over the next 3 years. Key factors in Neolido Technology's decision to base itself in Biel/Bienne were its convenient location in the center of Switzerland and Europe, the excellent traffic links, and the highly-skilled, multilingual workforce. The company was supported by the Bern Economic Development Agency in every possible way.

Information

contact@neolidotechnology.com

“We Swiss are not very good at telling people about the good things we make”

Interview with Roger Siegenthaler, CEO, mb-microtec ag

Gaseous light sources that stay alight with no external power supply for decades are the hallmark of this long-established company from Niederwangen. A fixed star in its own universe, mb-microtec is not particularly visible outside it. But that's now set to change.

mb-microtec has been around since 1969. Is the name “Hidden Champion” something you aspire to or is your marketing department getting it wrong?

“That understatement goes back to our founder Oskar Thüli. He was convinced that the quality of a product spoke for itself and didn't need additional advertising. We didn't even have a sign outside our office building. And customers did indeed find us even without advertising. But I firmly believe that if you do something well, you should make sure people know about it, so around 18 months ago I took the decision to expand our marketing and PR department. Good communication is vital, particularly when it comes to our watches. We will probably never be up there among the best known brands, but we can be proud of our products and people need to be able to read about that in the media.”

What makes mb-microtec a champion in its field?

“The uniqueness of our products and our manufacturing. This stems from the technical lead we have over our competitors. To make sure we stay ahead, we build our own manufacturing facilities and we never stop developing. This, plus the fact that we have a highly specialized and motivated workforce, is what secures us this leading position in our niche.”

How do you remain a champion?

“By investing around CHF 2 million a year in our R&D department to enable us to develop new products and facilities. Our new building in Niederwangen, which we inaugurated in October, plays an important part in this. It's equipped with the latest

technology, which enables us to take our research and manufacturing to an even higher level.”

Why is the Canton of Bern the right location for your company?

“The company was founded here in the Canton of Bern, in Bümpliz Castle, the home of the owners, and recently moved to nearby Niederwangen. We maintain close contacts with both our commune and the canton. These contacts are invaluable, as we saw when we built our new building. We might well have been better off in another canton from a tax point of view, but thanks to our contacts we were able to save a lot of time and money in other areas. And the fact that there are so many universities in the Canton of Bern means it's easy to find qualified staff.”

About the company

mb-microtec ag

Freiburgstrasse 624

3172 Niederwangen

Switzerland

www.mbmicrotec.com

Employees: approx. 100

Brands:

- trigalight®: gaseous tritium light sources
- traser® swiss H3: own-label watches with trigalight
- GlencaTEC: products for medical and industrial companies, primarily for hermetic encapsulation of components and assemblies



Roger Siegenthaler, CEO.



mb-microtec's new building gives it more manufacturing space and a modern working environment.

Elegance is an attitude

Simon Baker
Simon Baker

LONGINES®



The Longines Master Collection