

SetraNews

||||| JANUARY 2019

Setra stocks the shelves at Bolist in Lindesberg

DATA BECOMES
INFORMATION
AS WOOD INDUSTRY
IS DIGITALISED

HOW WILL BREXIT
IMPACT THE
WOOD INDUSTRY?

*Digital
tools*

SETRA'S WOOD
SCHOOL

TALKING ABOUT TIMBER: *What are the benefits of digitalisation?*

“DEMAND FOR WOOD PRODUCTS WAS HIGHER THAN IT HAS BEEN FOR A LONG TIME”



A great year for the wood industry

SUMMARISING 2018 is an enjoyable task. It was an excellent year for Setra and the wood industry as a whole. Production boomed, while demand for wood products was higher than it has been for a long time. There are now several indications that we are heading towards a calmer period.

But not in Långshyttan, where the production of components for the window and door industry is in full swing, and concerted efforts are under way to prepare the CLT factory for the start of production in the first half of 2020. Building new factories and adapting the entire production line for the future offers an advantage. Naturally, we have digitalised as many elements as possible in our efforts to satisfy customer requirements and needs.

BECAUSE WE'RE ALWAYS looking for ways to improve here at Setra. We work hard to increase the value of our products and streamline the entire value chain. We want to enhance our understanding of customer needs and demands, while making optimum use of the forest raw material.

On pages 9–11, Roger Göransson tells us about the newly opened Bolist store in Lindesberg, which is focusing on sharing knowledge with customers and offering convenient opening hours.

AND SPEAKING OF digitalisation, in the Wood School on pages 14–15 you can find out more about CNC technology, a key element at Setra's new factories in Långshyttan. We're building for the future so we can help our customers be more sustainable and do better business.

Enjoy the read
Hannele Arvonen
CEO Setra

Materialgalleriet takes inspiration from wood

Autumn saw the opening of Materialgalleriet in Stockholm. The place is a goldmine for architects, decorators and designers looking for inspiration for their work. The products on display in Swedish Wood's exhibition space in Materialgalleriet (Material Gallery) include interior and exterior panels, flooring, skirting and decking from several companies, including Setra. There are also 30 different product samples in Swedish spruce and pine that visitors can take with them.



Photo: Sveriskt Trä, Johan Ardelors



Danish company ecoXpac has developed the world's first wood-fibre based bottle.

High-tech products from the forest could be Sweden's next export success

The Swedish forest industry has taken the lead in international research into, and development of new smart sustainable forest products, according to Johan Freij, head of Danske Bank Sweden's Forest & Agriculture business area.

“I'd say our forest industry is entering a new era, from basic industry to a high-tech sector. Swedish innovations are attracting significant international interest, and they can be part of the solution to many of the world's problems.”

Danske Bank believes several of the new renewable products that are now being created will be the answer to global climate challenges faced by industries such as the fuel sector, packaging and construction industries.

SETRANEWS is Setra's customer magazine. It is published in Swedish and English for customers, employees and other stakeholders in Sweden and abroad. The purpose of the magazine is to share information about the company and keep readers up to date with the latest news.

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COVER PHOTO: Roger Göransson, Bolist in Lindesberg and Betty Malmö, Setra Skutskär. Photo Magnus Laupa.

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Photo: Shutterstock

Forest bathing has become an international health trend in recent years. But it's more about immersing your senses in the forest, rather than literally taking a dip in a forest lake.

Forest bathing comes from Japan, where they coined the phrase 'Shinrin-Yoku', which literally means 'taking in the forest atmosphere'. The best way to do this is by quietly

walking and exploring, and tuning in to each sound, smell, colour and feeling of the forest in all its vibrant biological diversity.

In Sweden, the concept of forest bathing did not join the Language Council's list of new words until 2017, but in Japan Shinrin-Yoku has been part of the country's national health programme since the 1980s.

Glulam increasingly popular in apartment blocks

A new survey carried out by trade association Swedish Wood reveals that the Swedish construction industry believes glulam is a good choice for apartment blocks.



Around 1,000 people working in the building sector took part in the survey, responding to questions about materials and construction. A similar survey was conducted in 2015, and back then some 13% responded that glulam frames are the best material in apartment blocks. The corresponding figure for 2018 is 34%.

"It's a major increase. The fact that more than a third of survey respondents now prefer glulam frames in apartment blocks is a clear shift in the construction industry. One reason is that glulam manufacturers are continually improving both their processes and products, and offering increasingly refined services and solutions, such as prefabricated glulam cut to specifications, shaped and with pre-drilled holes," explains Johan Fröbel at Swedish Wood.

Setra closes Rolfs in Kalix

Setra has started the process of closing down operations at Rolfs in Kalix, northern Sweden. The unit has some 60 employees and produces sawn wood products and processed products, primarily for builders' merchants in Scandinavia. The reason for the closure is that Setra wants to increase synergies within the Group to develop long-term competitiveness. Setra has previously sold units that were not directly linked to, or that do not support, its core business.

NEW FACES



Photo: Hans Berggren

New Board member
ANDERS KÄLLSTRÖM, CEO of LRF, was elected as a new member of Setra Group's Board at the extraordinary general meeting held on 13 December 2018.



Senior Advisor to CEO

ANDERS NORDMARK is the new senior advisor to the CEO, tasked with reviewing Setra's entire value chain. Anders Nordmark will continue to operate as Site Manager for Setra Rolfs alongside his new role.



New Site Manager in Malå

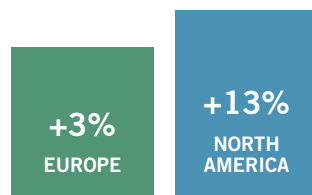
MARLENE BERGSTRÖM joined as the new site manager at Setra Malå in October 2018. Marlene Bergström was previously Sales Manager for Scandinavia.

THREE WOOD TRENDS

Setra's Director of Market & Business Development Olle Berg takes the temperature of the wood market.

1 Increase in timber construction

A CLEAR TREND IS that timber construction is increasing. Wood is also winning market share from other building materials, despite the construction market as a whole seeing a slight decline. Interest in wood construction has risen in recent years, although there has been a lack of capacity for building in wood. Significant investments within the wood industry are now taking place, and Setra's new factories for components and CLT will help meet increasing demand.



Consumption in Europe and North America rose by 15 million m³ between 2015 and 2018.

2 The economic boom has peaked

THE SAWMILL INDUSTRY HAS EXPERIENCED A PROLONGED economic upswing. Global consumption has seen a steady increase since 2015. This has resulted in a gradual increase in prices and higher production volumes. We are now seeing a slowdown in the global market. One assessment is that the economic boom has now passed its peak for this cycle and that we will see a drop in prices over the next few years. This will also mean a decline in the rate of growth for 2019, although global consumption will remain strong.

3 Digitalisation

THE INCREASINGLY RAPID pace of digital development is something we all need to relate to, regardless of the market in which we are operating. And digitalisation is a top priority for many companies. The sawmill industry is no exception, and it's also an important issue for Setra. Digitalisation impacts on several areas, including the investments we make today and how we intend to do business in the future. Companies all around the world are devoting a great deal of time to thinking about how digitalisation affects customers, and how it changes needs and demand. Digitalisation brings challenges, but also major opportunities.



Photo: Sten Jansin



Photo: Shutterstock

In the long term it's a good idea to keep an eye on what's happening with Brexit. It's difficult to assess the effects now, but on page 12 we try to examine how the various scenarios may impact the industry.

Olle Berg is Director of Market & Business Development at Setra.





How the wood industry is meeting the digital challenge →

Smart sawmills, semi-autonomous forest-based vehicles and CNC machines that automate the entire production process. Digitalisation has reached the wood industry – but are we really ready for it?

TEXT: ANNA MATZINGER

DIGITALISATION IS A broad and, in recent years, much used term. It can cover everything from our current preference for online banking, to the construction of a new 5G network, and the concept of big data analysis supporting research into diabetes. And if you've been even vaguely following the public debate, you will have understood that digitalisation is something that is extremely important for us to get to grips with – both for individuals and companies.

Naturally the wood industry is no exception. And as an industry with a very long history, it's generally well equipped to meet the requirements of a digitalised business.

“The wood industry may be a traditional sector in that it's been around for a very long time. But it's also a modern industry. Many segments already rely on a high degree of technology in the form of digital management systems, and there is also a strong interest in further digitalisation. However, there's still room for improvement,” says Torgny Persson, Director of Research and Innovation at the Swedish Forest Industries Federation.

Anders Lycken, Project Coordinator at state research institute RISE and one of the team of people behind ‘The Smart Digital Sawmill’ project, agrees.

“Digitalisation in the wood industry is fairly inconsistent. If you look at the sawmills where we've been working with the digitalisation project for the past two years, it hasn't really come very far. There are of course some exceptions. Meanwhile, other areas of the industry are much more advanced,” he says.

Setra's CTO/CIO Andreas Hörnfeldt has a similar impression – but he also thinks that we need to significantly raise our ambitions.

“We're fairly good at collecting data at the sawmills, but not quite as good at actually compiling and using it. That's an area where we need to develop our systems. But I'd say that the wood industry needs to raise its sights a little and take inspiration from other sectors. After all, consumers' purchasing behaviour has changed dramatically in recent years, and the same thing will happen in the wood industry too. That's where I think we need to be more proactive in order to succeed,” he says.



Photo: Ola Högberg

An interconnected flow of information within the sawmill enables analysis, planning and optimisation of the entire chain, from delivery of the raw material to distribution and sales.



Photo: Ola Högberg

Recognising wood structures, measuring time differences and increasing traceability will optimise the whole production process, from log to plank.

“The wood industry may be a traditional sector in that it's been around for a very long time. But it's also a modern industry”

The wood industry is showing considerable interest in digitalisation, according to Torgny Persson, Director of Research and Innovation at the Swedish Forest Industries Federation.



Photo: Magnus Laupa



When the sawmill's various electronic support systems are able to communicate with one another, it makes it possible to utilise data from each individual part of the business.

Photo: Sten Jansin



Setra's new CLT factory in Långshyttan will be highly digitalised, which will enable the production of complex parts in a uniform and automated way.

More efficient forestry

There can be no doubt that there is considerable interest in digitalisation within the industry. RISE, which is a collaboration between universities, business and society on industrial research and innovation development, has just completed 'The Smart Digital Sawmill' project (see box on next page). Coordinated by the Swedish Forest Industries Federation, a major project will be initiated in February next year involving both industry operators (SCA, Stora Enso, Holmen, Södra, Billerud-Korsnäs and Sveaskog) and world-leading researchers from SLU, Skogforsk (the Forestry Research Institute of Sweden), IVL Swedish Environmental Research Institute, Umeå University and KTH Royal Institute of Technology. The theme is 'For-

estry, digitalisation and circular products', and the project has initially been granted SEK 56 million from MISTRA, the Swedish Foundation for Strategic Environmental Research.

"The overall objective is to make forestry more efficient. For example, part of the project involves looking at how we collect and process harvesting data. By cross-checking data flows, we hope to be able to optimise harvesting and find exactly the right area to fell at exactly the right time, as a raw material for specific kinds of products," says Torgny Persson from the Swedish Forest Industries Federation, who initiated the project.

Other aspects of the project involve developing more digitalised support for the harvesters, so they can work more

"The ideal scenario is for the end customer to get exactly what they want, while we make optimum use of the forest raw material in terms of both value and sustainability"

efficiently, perhaps even with the aid of semi-autonomous vehicles.

"To conclude, the idea is for us to visualise collected data in a clear and understandable way, so that forest owners have a solid set of data for making decisions. In the long run, we're hoping it will lead to more efficient use of the forest," says Torgny Persson.

More in-depth data analysis

Greater digitalisation within forestry and improving opportunities to make targeted selections of raw material will of course benefit Setra as well. However, the focus of our own work with digitalisation is a stage later in the process, when the timber arrives at the sawmill.

"We're already collecting a vast amount of data at our eight sawmills, both as the timber comes in to be sorted into different grades and classes, and when we calculate how to saw each log to maximise the result. We also have x-ray machines that analyse logs and provide much more detailed information. But we could be much better at analysing all the data and processing it to help us make optimum use of the entire log. The ideal scenario is for the end customer to get exactly what they want, while we make the best use of the forest raw material in terms of both value and sustainability," says Andreas Hörnfeldt.

Another area where digitalisation will become more noticeable is automation at sawmills. This may involve using sensors to measure how the machines are performing and using this information to ensure maximum utilisation of machines →

while guaranteeing continual operation. Systems of this kind will generate a need for new skills in the profession.

“We will need operators who specialise in certain types of systems and machines. These experts will probably be responsible for specific machines at several sawmills, and will in practice be located anywhere, as the systems can be controlled remotely. I don’t think our sawmills will become so-called ‘dark factories’ that don’t need any lighting as all the work is carried out by robots, but the possibilities created by mobile workplaces are definitely an advantage for our future workforce planning,” says Andreas Hörnfeldt.

Digitalised CLT factory

One example of how Setra is responding to changes in customer needs, and where digitalisation is also playing a key role, is the new CLT factory currently being built in Långhyttan, central Sweden. Demand for cross-laminated timber is seeing a sharp increase at the moment, and the material is being used in the construction of both apartment blocks and industrial properties.

The factory will be highly digitalised, particularly through the use of CNC machines. CNC stands for Computer Numeric Control and means that the machines are controlled by a computer system, allowing for the production of extremely complex parts in a uniform and automated way. You can read more about CNC technology under Setra Wood School on page 14.



Photo: Emil Nordin

Setra’s CTO/CIO Andreas Hörnfeldt thinks that the wood industry needs to raise its sights and look at how other industries are working with digitalisation.

Magnus Emilsson works for building design company Limträteknik i Falun, which specialises in wood. He’s one of the team of people responsible for designing the structural load-bearing elements in a building, based on an architect’s technical drawings. Magnus’ work is almost entirely digitalised and most technical drawings are now done in 3D.

“The new CNC machines at Långhyttan will enable us to send our files direct to the control system. So we won’t need an intermediary to sit and enter them. That will of course save time, but the system also enables more precise production, which means we can further reduce the margin of error on site,” he says.

In addition to the more specific changes brought about by digitalisation, with more in-depth data analysis and automation of operations, Setra’s CTO Andreas Hörnfeldt feels there will be other, less predictable consequences ahead.

“Many other sectors have changed beyond recognition with the advent of digitalisation. Take retail, for example, which has had to completely readjust in response to customers’ new purchasing behaviour. Increased online purchasing requires fewer physical stores. Of course our industry will also be affected by digitalisation to a great extent, but it’s hard to say exactly how. What we can do is be aware of every change and try to respond accordingly.”

The Smart Digital Sawmill

NOVEMBER 2018 saw the completion of ‘The Smart Digital Sawmill’ project. The initiative was a research project that aimed to create an interconnected flow of information in the sawmill, and it was managed by RISE, together with Rema-Sawco, Moelven Valåsen and Schneider Electric.

“The starting point was that many sawmills collect a huge amount of data about everything from the appearance of the timber to energy consumption, but

they haven’t found an effective way of linking up this data to form an integrated system. If we do this, we now know that it’s possible to optimise production in a completely different way,” says Anders Lycken, Project Coordinator at RISE.

The objective of the project was to create a system that analyses all the measuring points in the sawmill and in so doing increase the product value by 10%, raise process efficiency by 15% and cut energy consumption by 10%.

“The project period was a little too short to fully realise our goals, but we have definitely demonstrated that it is possible to achieve them. Alongside achieving targeted effects, the aim has been to develop a general methodology for implementing digitalisation projects like this one, so subsequent sawmills don’t have to reinvent the wheel,” says Petri Luomala, digitalisation expert at RISE.

Customer focus, seven days a week

At the beginning of November, builders' merchant and DIY chain Bolist opened a new store in Lindesberg. Setra has been on board right from the start, supplying material for rebuilding and extension work on the premises, but also stocking the shelves with a basic range of sawn wood products ahead of the opening.

TEXT: KATARINA BRANDT PHOTO: MAGNUS LAUPA



→ **THE ERA OF THE IRONWORKS IS** over; the mining industry and the big mining companies are no more. But traces of them live on. You can see them on our journey to Lindesberg, where the road is lined with the names of mines, cabins, forges and miners' homes.

Lindesberg Municipality is situated right in the heart of Bergslagen, 40 kilometres north of Örebro, where the main town of the same name rests proudly, almost majestically on the shoreline between the Bottenån river and Lilla Lindesjön lake. Lindesberg has developed as a traditional mining town, founded on basic industry. But new industries have begun to take over in recent years, and efforts are under way to balance different niches within the corporate sector and create new forums and arenas for collaboration. The area is characterised by a long-standing tradition of entrepreneurship and innovation, which has contributed to the significant role still being played by small businesses.

The carpenter who became a builders' merchant

One shining example of both entrepreneurship and enterprise is builders' merchant and DIY chain Bolist's new store on Bandygatan, which opened at the beginning of November last year. The store is managed by Roger Göransson, who alongside his six colleagues has had a hectic few months. Roger began his career as a carpenter and for the past few years he has worked as both a team leader and site manager at NCC in Örebro. He was enjoying life and hadn't been planning to make a change. But then his friend Per Eriksson called with an opportunity.

"Per works in the property business and had been in contact with Bolist about setting up a store in Lindesberg. The only thing missing was someone to run it. The question was put to me and I reasoned that if I was going to do something new, well, now was the time to do it."

Collaboration with Setra on sawn wood products

Builders' merchant and DIY chain Bolist was established in 1998 and now has just over 200 stores across Sweden. It is the only specialist retail chain with its own



Roger Göransson is in charge of Bolist's new store in Lindesberg. Here with Betty Malmo, Customer Manager at Setra Skutskär.

"I hope our customers will find most of what they need for their building and renovation projects here"

central warehouse for both DIY and building materials.

"Everything felt right from the very first meeting with Bolist. It was almost like becoming a member of a family," comments Roger. "Since then we've had great support from other stores nearby and regular dialogue with the Bolist stores in Arboga and Grängesberg. It was actually Ronnie Pettersson from the Arboga store who recommended we contact Setra to work together on sawn wood products."

In March 2018, work began on the refurbishment of the 1,700 square metre

industrial premises in Lindesberg. The project to get the building, previously home to a sandwich factory, up and running, proved to be a considerable undertaking. Roger knew what he wanted and we can see the results now in the form of a modern and practical builders' merchant with two large drive-in halls packed with materials that make it easier for customers to both find and buy what they want. All loading of timber and materials takes place indoors and the area is very spacious to allow several cars to load up at the same time. Roger is also careful to highlight



“The fact that it was fellow ‘Bolisters’ who recommended Setra, is of course an added bonus”

Deliveries from Setra arriving at the new Bolist store in Lindesberg.

the level of service they are striving to maintain. Particularly when it comes to convenient opening hours every day of the week.

“I hope our customers will find most of what they need for their building and renovation projects here. If they are unsure and don’t really know what they want, we should be able to help and offer guidance.”

A constantly updated product range

The 650-square-metre store is one of Bolist’s largest. Roger and his colleagues have devoted a great deal of time and thought to creating a functional store layout that’s easy to navigate, with each item in its proper place. And the product range is to be kept up to date in response to seasonal increases and dips in demand throughout the year.

“In the winter we focus much more on interior materials, which take up a large area of our retail space, while in spring and summer the focus is instead on outdoor building projects.”

Roger’s initial contact with Setra was at the annual Bolist trade fair at Elmia in Jönköping, where he met Betty Malmo, Customer Manager at Setra Skutskär. The meeting resulted in Setra supplying wood for the construction of the new premises, and also to fill the shelves in the warehouse with a basic range of sawn wood products.

“This included both joists, exterior panels and some undercoated timber. In the run up to the opening, Setra Skutskär delivered three full lorry loads, which is roughly 180 cubic metres,” explains Betty.

Peak season during summer months

Starting up after home-owners’ most intensive building period in the summer didn’t bother Roger at all.

“Me and my colleagues could do with a few months to get to grips with everything. Once the summer season comes round again, I hope the timber will disappear off the shelves and we’ll be getting regular deliveries from Setra. I’m thinking for example of pressure-treated timber, which we’re predicting there’ll be considerable demand for.”

Pressure-treated timber, glulam and interior wood...Betty emphasises that

Setra has many products to offer and is keen to be a comprehensive supplier to Bolist in Lindesberg. The partnership has got off to a flying start and she notes that from Setra’s perspective they are happy to help with efforts to get local builders interested in the product range, for example by organising breakfast meetings.

“It’s not often that a new builders’ merchants opens. So it’s great to be involved and a supplier from the start. The fact that it was fellow ‘Bolisters’ who recommended Setra, is of course an added bonus,” concludes Betty.



Oliver Larsson and Casper Larsson make sure the shelves in the store are kept well stocked.



Photo: Getty Images

TIPS

The National Board of Trade Sweden has put together up-to-date material on Brexit and its impact on trade on its website: kommers.se

What are the implications of Brexit?

Preparing for Brexit is no easy task, because no-one really knows exactly what the UK's exit from the EU will actually be like. But keeping informed, maintaining good stock levels in the UK and ensuring additional administrative resources are in place is a good start. TEXT: ANNA MATZINGER

PREDICTING THE consequences of Brexit for the wood industry in general, and Setra in particular, is of course extremely difficult, particularly since no-one really knows yet what kind of Brexit it's going to be. It could be hard, soft or anything in between. What we do know is that the UK is a big import market, and whatever kind of Brexit happens the country will continue to have a significant need to import wood and other products.

"Roughly 200,000–250,000 homes are built every year in the UK, and that need isn't about to disappear with Brexit. If the UK economy sees a decline as a result of Brexit, which some analysts are suggesting, it could have a negative impact on new construction. In such a situation, however, a growing home improvement sector could compensate to some extent," says Olle Berg, Director of Market & Business Development at Setra.

One thing we can be certain of, whatever form Brexit takes, is that new trade agreements will be needed. Issues such as customs clearance and VAT regulations

will most likely be more complex while these new agreements are being put in place.

"There's no doubt we will eventually enter into new agreements. We all want to continue trading with one another. But the question is how we will get there. Is there sufficient administrative capacity on the UK side to manage this during the transition period? And what's the situation in Sweden?" says Olle Berg.

Continued trading

The government and trade associations such as the Swedish Forest Industries Federation are working on several levels to create the best possible conditions for the Swedish forest industry. As far as Setra is concerned, it's mostly a matter of following the course of events and responding to the information that emerges.

"It's basically impossible to prepare for something when you don't really know how it's going to be.

"But of course we're going to make sure that our stock levels in the UK are high in March next year, and that we are well prepared with extra administrative resources should they be needed," says Olle Berg.

Olle Berg doesn't feel there is any need to compensate in advance by increasing business on other markets.

"The UK needs our sawn wood products and I'm confident that trade will continue, although it may be a little more complicated in purely administrative terms. We have well-established relationships and I know that everyone involved will do their best to ensure everything goes as smoothly as possible," says Olle Berg.

"The UK will continue to have a considerable need to import wood along with other products, regardless of how Brexit pans out," says Olle Berg, Director of Market & Business Development at Setra.



WORLD-CLASS DIGITAL WOOD TECHNOLOGY

Metropol Parasol resembles a collection of gigantic mushrooms stretching across Plaza de la Encarnación in central Seville. The monumental landmark, said to be the world's largest wooden construction, is also popularly known as Las Setas – The Mushrooms. TEXT: KATARINA BRANDT

BACK IN 2004 an architecture competition was held to try and breathe new life into Seville's Plaza de la Encarnación, which was a large deserted area and car park in the city centre. The competition was won by German architect Jürgen Mayer Hermann, but the sophisticated architectural design meant that construction took longer than anticipated, and Metropol Parasol wasn't officially opened until seven years later.

It would not have been possible to implement the project without close cooperation between architects, structural engineers, fire protection specialists and experts in wooden constructions. Another essential element was modern CNC

technology, which made it possible for the 3,400 individual pieces that make up the design to be cut with millimetre precision, and equipped with milling details and apertures.

The wooden structure consists of glued panels arranged in a grid of squares with dimensions of 1.5 x 1.5 metres. The size of each individual load-bearing element is adapted to the actual weight, and so varies between 68 and 311 millimetres. The largest of the wooden parts is 16.5 metres high, 3.5 metres wide and 140 millimetres thick. The joining is based on bonded steel rods that helped speed up the process of assembling the structure on site.

The basement level underneath Metropol Parasol houses an archaeological museum, the ground level is used as a food hall and the roof space for various events. At the top there's a restaurant nestling among the beams of the parasol roof, and next to it a walkway meanders, boasting stunning views of the city centre.

METROPOL PARASOL FACTS

Location: Plaza de la Encarnación, Seville, Spain

Architect: J. Mayer H. Architects, Berlin

Height: 28 metres

Area: The construction stretches across an area of 11,000 square metres

Number of wooden parts: 3,400



WOOD SCHOOL

Digital tools take their place in the toolbox

CNC is the technology of automating manufacturing machinery by using computers to carry out pre-programmed sequences of machine commands. The technology is revolutionary, to say the least, and has created endless opportunities within wood processing. TEXT: KATARINA BRANDT

THE ACRONYM CNC stands for computerised numerical control, a computer system used to control industrial machinery, or machines that are programmed numerically. For example, in the wood industry you can programme your milling machine or lathe to efficiently and accurately produce the details and components you want to make. The machine movements are carried out by motors controlled by a computer, unlike manually controlled machines where the movements are achieved by, for example, turning wheels or pulling levers.

CNC technology is used today in many different types of manufacturing machines, such as 3D printers, laser cutters, lathes and milling machines. It makes it

possible to produce anything from complex shapes such as ovals and curves, to turning of intricate details. You can also use the computer to simulate the entire manufacturing process, to make sure everything works as it should.

“Technical developments create opportunities for our employees to learn new skills and take on new challenges in their jobs”

An integral element in Setra’s new factory

CNC technology is in many ways essential for industrial construction using solid wood. The technology is therefore a central aspect of the machinery that has been acquired for Setra’s new CLT factory in Långshyttan. One major advantage of CLT in particular is that you can take the designs straight to production. Manufacturing involves taking a large sheet that is then cut down into smaller elements. Modern CNC technology produces precision cut components that fit together perfectly. The precision and simplicity that are achieved make CLT a popular material among carpenters.

“In autumn 2018, we installed a CNC machine at our glulam production facility in Långshyttan to streamline production. We’ll be buying two large CNC machines for our new CLT factory, which will carry out format processing of the CLT panels. The machines are equipped with several different kinds of tools and can cope with everything from precision tasks to less detailed cutting,” says Anna-Lena Gull, CLT Project Manager.

While Setra will need to take on new expertise in the form of CNC operators at Långshyttan, Anna-Lena Gull also sees an opportunity to retrain existing employees who are interested in the technology.

“Technical developments create opportunities for our employees to learn new skills and take on new challenges in their jobs. It will lead to new approaches and make the job more varied, stimulating and interesting,” says Anna-Lena Gull.

Photo: Magnus Laupa



Anna-Lena Gull is Project Manager for CLT wood at Setra and is responsible for the development of the new CLT factory in Långshyttan.



Advantages of CLT

- Cross-bonded and durable in relation to its low weight
- Can be supplied in large dimensions
- Enables efficient and quick assembly
- Can be processed using traditional hand tools
- Has substantial load-bearing and stabilising capacity
- Has good physical characteristics including sound insulation and fire resistance
- Contributes to a more consistent and improved indoor climate



TALKING ABOUT TIMBER

Continuing digitalisation is not just about banks and retail moving online. It also extends to perhaps our most traditional industries, such as the forest and sawmill industry. We asked three industry representatives to share their thoughts on current developments.

TEXT: KATARINA BRANDT

What does digitalisation mean for the Swedish forest industry?



FREDRIK KLANG
SENIOR VICE PRESIDENT OF FORESTRY,
SVEASKOG

“Digitalisation creates substantial opportunities to increase value from the forest to the customer”

Digitalisation is extremely significant and creates substantial opportunities to increase value from the forest to the customer. We have been working with digital tools for some time now, and have, for example, gained considerable benefit from digital maps and geographical information systems, GIS, which allow us to collect and store geographical data and information about our wide-spread raw material base. These digital tools make our work more precise, and I see great potential on the timber flow side. Here they can help us improve at customer management, allowing us to direct specific products to our sawmill customers. Combining high precision with a sustainable approach means we can be selective about taking trees from the forest, which are then made into products that are in demand on a global market.



LINDA ERIKSSON
FOREST DIRECTOR,
SWEDISH FOREST INDUSTRIES FEDERATION

“It’s a real advantage when data accompanies the entire process, from forest to industry”

New digital planning tools will help us be more flexible in taking the right action in the right way and in the right location. We’ve been limited in the past by our department boundaries, and we haven’t made full use of the forest. Creating ‘digital fences’ will also make it easier to be more mindful of cultural and environmental values.

There is also a vast amount of data being compiled about the forest that we’re failing to make the best use of. It’s an advantage if this information can accompany the entire process, from forest via transportation and into industry. When all parts of the chain communicate with one another, it creates the potential to increase efficiency and achieve higher added value.



ANDERS LYCKEN
RESEARCHER, RISE,
Research Institutes of Sweden

“Digital tools enable monitoring at a level that previously we could only dream of”

Digitalisation makes it possible for sawmills to improve their process and gain details of where the raw material comes from and where the finished products are headed. Traceability is important here, which means that you have to keep track of logs, blocks and planks throughout the entire process. Not just for a batch, but for each individual piece. Digital tools also enable monitoring at a level that previously we could only dream of. You can achieve better control of what particular log types can produce, and go on from the sawmill out to the forest and order timber of a specific quality, dimensions and length. Taking measurements in which you examine, compare and consider more aspects of the process allows us to hone production and highlight various correlations.