

# SCA Wood Magazine

2/2024

SUSTAINABLE  
PACKAGING

AI RESEARCHER  
ON THE FUTURE

SCA PRODUCTS  
AS BIM OBJECTS

## Electrification of heavy transports

Fredrik Allard oversees the transition to electric power for truck manufacturer Scania. He sees great potential for the electrification of heavy vehicles, especially within the forest industry.



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^ Building traditional wooden houses with modern technology.



^ Danica Kragic Jensfelt conducts research on AI.

SCA products as > BIM objects in digital libraries.



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# Autumn is finally here!

**LIKE SUMMER, AND WINTER TOO** for that matter, but in some ways, autumn is unbeatable. For me, this season marks the start of hunting season, both with my moose hunting team in Västerbotten and for small game hunting around Sundsvall and toward the Jämtland mountains. The autumn hunts and the nature experiences they bring are very valuable to me and something I always look forward to.

At work, we continue to find better and smarter ways to operate, regardless of the season. We're working to enable our sawmills to handle more types of wood, to make better use of the forest's resources. We create the highest possible value from each log through advanced CT scanning. We are switching to packaging made of 70 per cent recycled material. And we continue to increase the production of sawn timber from lodgepole pine.

Together with truck manufacturer Scania, we have successfully tested the world's first electric timber truck for two years – and now we're putting another one into operation. In this issue, Fredrik Allard, who oversees the electrification at Scania, shares insights into the future of electric heavy transport.

This fall and winter, we will also begin marketing the fact that our wood products are now available as BIM objects, something I am really looking forward to. It will give architects, designers, and decision-makers access to all relevant data directly through an API, which is a fast and clear way to showcase the environmental benefits of building with wood. It's going to be very exciting! Read more about BIM objects on page 44.

In this issue, you'll also meet AI researcher Danica Kragic Jensfelt, who envisions a future where smart robots assist us when humans alone aren't enough, and entrepreneur Daniel Blomqvist, who builds wooden houses that combine historical beauty with modern technology.

So, inspiration, innovations, and grand nature experiences – isn't it wonderful that autumn is here?

Happy reading!



JERRY LARSSON  
AFFÄRSOMRÅDESCHEF, SCA WOOD





## THE WORLD'S LARGEST URBAN WOODEN DISTRICT

**NEXT YEAR MARKS** the start of construction for Stockholm Wood City, the world's largest urban development project with wooden buildings, located in Sickla in eastern Stockholm. The project covers 250,000 square meters of space, which will include 7,000 workplaces and 2,000 homes, all in buildings with wooden frames.

Wooden buildings contribute to reduced carbon dioxide emissions and offer benefits for both health and the environment. The project, with construction starting in 2025 and the first completed buildings expected by 2027, will also include self-produced and stored energy, further reducing the climate impact of the buildings.

Real estate company Atrium Ljungberg is the initiator and developer of Stockholm Wood City. For more information:

> [al.se/sickla/stockholmwoodcity/](https://al.se/sickla/stockholmwoodcity/)





# Enchanting wooden houses

## WITH SPIRES AND TOWERS

TEXT JENNIE ZETTERQVIST PHOTO RANIA RÖNNTOFT

The choice of materials is inspired by the forests of northern Sweden, the architecture by the lavish stone villas commissioned by Sweden's nineteenth-century timber barons, and the colour scheme by the Painted Ladies of San Francisco. Daniel Blomqvist founded Jupiter & Gran to build timber dream houses with traditional beauty and modern techniques.

"If you're going to build, of course you might as well invest in that little something extra.

It provides added value that will live on and make people happy for many, many years to come," he says.

**J**UPITER & GRAN IS BASED in Matfors, a small town west of Sundsvall, the epicentre of Sweden's nineteenth-century forest industry. Until 1990, SCA operated a paper mill in the area, but the former mill is now occupied by other businesses. There are no signposts to indicate that, right here, fantastic wooden houses are being conceived but, as one turns onto the forecourt, there is no doubt that we are in the right place. A richly ornamented wooden tower stands in splendid isolation beside the driveway. This will eventually be the crowing glory of Jupiter & Gran's first new-build timber building in Sundsvall.

"We built the tower first, both to attract a little attention and to show what we can and want to achieve. We'll build the house later, when the right plot turns up," says Blomqvist, who has enjoyed carpentry since childhood.

"I learned the craft by building huts, then more huts, and then renovating houses. It's all about trial and error and learning along the way. As long as you're curious enough, it normally works out well, and that's how I've developed my know-how," he says.

### TAKING ADVANTAGE OF MODERN TIMBER TECHNOLOGY

His first renovation project was a nineteenth-century house in Södermalm, one of Sundsvall's characteristic residential neighbourhoods. Blomqvist discovered the joy of restoring a house to its former glory, and more and larger projects followed. Eventually, he began designing his own dream houses with the aim of building them himself from the ground up, in timber. Although not

a trained architect himself, he works closely with architectural practice Tradition Arkitekter when the time comes to turn his dreams into reality.

"It's really enjoyable to build apartment buildings in wood with traditional architecture today, when there are so many modern technologies that didn't exist in the nineteenth century, like glulam and solid timber frames. That's something I think we should really take advantage of," he says.

Jupiter & Gran prides itself on being an innovative construction company. The aim is to identify modern techniques that make it easy to produce in natural materials, while at the same time creating beautiful, soulful buildings. Others have described it as "innovating with old ideas".

"My own interest springs directly from Sundsvall's history, when all the wealth generated by the thriving forest industry was used to build the stone houses that stand in Stenstan to this day. That's where I grew up, so this classic, adorned nineteenth-century architecture has always seemed natural to me. I also draw inspiration from the even older wooden buildings that made up the city before it burned down in 1888," Blomqvist explains.

Naturally, wood is the material of choice.

Jupiter & Gran wants to create healthy living environments using natural materials, free from unnecessary plastics and chemicals.

"That's why we build in timber and use linseed oil paint. When we replace modern insulation with cellulose, it's natural throughout. Like a log cabin, but modern. Of course, part of the allure of wood is that it smells good and it's joyful to look at.







The beautiful wooden tower with ceiling > murals by artist Christian Beijer is waiting to crown Jupiter & Gran's new building in Sundsvall – once it is built.



It really does feel natural to live in a wooden house, like living in the forest rather than the feeling of living in, for example, a concrete and steel building.”

#### A JEWEL-LIKE CARPENTRY WORKSHOP

Jupiter & Gran is also keen to provide a beautiful workplace and the company's 600-square-metre carpentry workshop certainly ornaments its location. It is here that Daniel Blomqvist has taken the opportunity to give full rein to his ideal of style. With its gemstone colour scheme of emeralds and amethysts, jewel-like windows, ornate joinery and murals by local artist Eva Norberg, no wonder the building was awarded the accolade Sweden's Most Beautiful New Building of the Year by Arkitekturuppröret, an NGO advocating for traditional architecture.

“That was great! It's wonderful, and important, to have a beautiful work environment. We will be working here many hours a day for many years, so it's something that's really worth investing in,” says Blomqvist.

The carpentry workshop feels almost hallowed. The light streaming in from above through

beautifully crafted windows creates a delightful atmosphere as it bounces off of the blonde timber wall panels. The constantly shifting shadow play of light inside a room created by paned windows is just one of the many reasons that Blomqvist loves older architecture.

Shelves inside store similar windows decorated with panes of glass in various colours, designed by Blomqvist and manufactured by Jupiter & Gran's partner in Estonia. These windows are destined for Tornvillan in Södermalm, another of Sundsvall's historical wooden houses being meticulously renovated by Jupiter & Gran, with no period detail left to chance.

“We're going to imbue the house with the joy of carpentry. The plan was actually for Jupiter & Gran to only work on new builds, but I couldn't resist taking on this building as it's so beautiful and it seemed like such an exciting project.”

Jupiter & Gran's attention to detail has also led to the company designing and developing wooden kitchens that live up to all of their style ideals. The production of these is entrusted to the same skilled hands as the windows.





^  
Daniel Blomqvist grew up in Sundsvall surrounded by the forest and the ornate nineteenth-century facades of Stenstan. This inspired a love of classical architecture, and of wood. While effective solutions at reasonable costs are important parameters for Jupiter & Gran, according to Blomqvist, more consideration should be given to the long-term value of beautiful homes and buildings in public spaces.

“It’s a considerable advantage for us to have the same supplier for windows, doors and kitchens. Naturally, it costs a little more to have them specially made, but this way we minimise the number of contacts needed and, as we’ve worked together for a long time, we know we’ll get a very good product,” says Blomqvist.

The workshop also contains a staircase system in laser-cut, bent sheet metal with a decorative grate on each step to let light through. This too is inspired by the stone houses of Sundsvall.

“A stone slab is placed on each step. This is a prototype we’ve made, and an example of a staircase system that’s cheap to make, easy to assemble and, at the same time, looks great.”

#### VALUE NOT JUST COST

Jupiter & Gran is also keen to demonstrate that it is no more expensive to build timeless beauty that is sustainable in the long term. And, if it does turn out to be a little more expensive, perhaps one should consider the added value to residents of the house and those who pass it everyday. As Blomqvist observes, the Stenstan district of Sundsvall

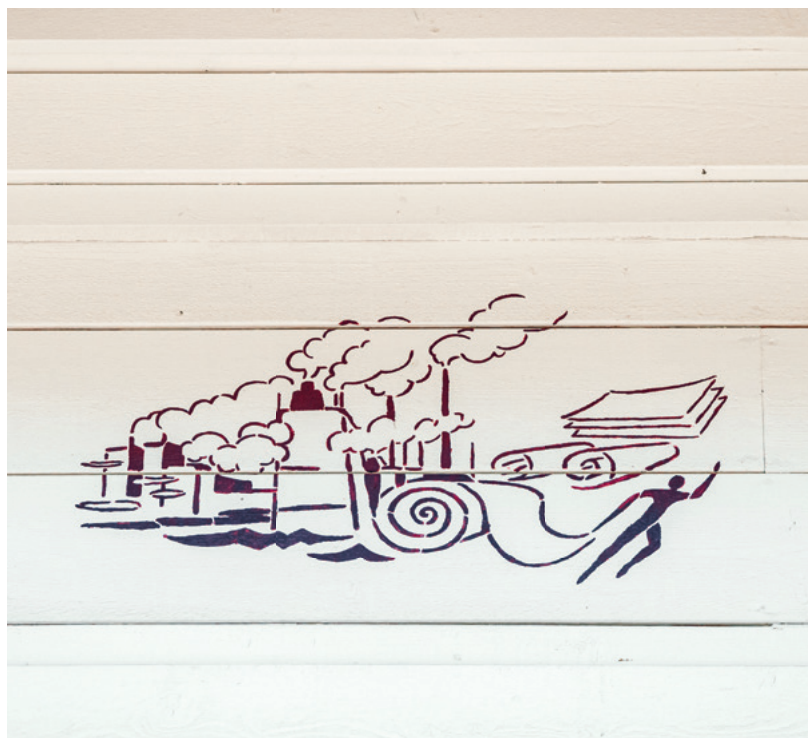
remains a joy to behold for visitors and residents alike some 130 years after the houses were built.

The initial plan was to build the company’s first apartment building locally in Sundsvall. With the plot, drawings and planning permission in place, an appeal from the Swedish Transport Administration put a stop to this. It now appears that the first apartment building will be built further inland in Åre instead. At the time of writing, Blomqvist is waiting for a planning decision on a three-and-a-half-storey building in the town centre, which will be in keeping with the mountain terrain of the ski resort, with a colour scheme in traditional brown and less traditional blue.

“In my opinion, we use too little colour! That’s something many of us could be better at. I was inspired by all of the colourful buildings while I was in San Francisco, and I’m having trouble letting it go. But I do adapt the colours to the place where we’re building,” says Blomqvist.

The jewel-like colour scheme of the carpentry workshop is the work of artist Christian Beijer.

“Strict traditionalists don’t think you should have such a bright purple on a building in classic style.



Still, a lot of people think it's great as well. The shade of green is inspired by the spruce forest and the purple by the rosebay willowherb that grows along the railway lines that have been so important to the forest industry. And the railway once passed by here," explains Blomqvist.

### ONE HOUSE AT A TIME

As a general rule, Blomqvist only works on one house at a time without giving too much thought to what comes next.

"That's what we're most comfortable with. When we post pictures of our work it normally goes down well and then sometimes we receive inquiries. But we're not doing any jobs for clients at the moment, only our own production and for rental. But that won't necessarily always be the case. I'm open to other projects in future," he says.

Blomqvist has had no trouble finding like-minded people over the years.

"It's not been a problem and, well, it's almost happened by itself. I guess we're drawn to what we have in common and that's been the case when we've employed carpenters, architects and others."

And maybe it will be even easier in future.

"It feels like a lot has happened over the last ten years and that traditional architecture has become much more popular again. Before, it was sometimes associated with being somewhat reactionary. But now more buildings are actually being designed in a more traditional style," says Blomqvist. 🏡



Sweden's most beautiful carpentry workshop? The colour scheme was chosen by Christian Beijer and the murals painted by Eva Norberg, both local artists. The murals depict motifs with local associations and SCA, which operated a paper mill here until 1990, is represented by both timber rafting and paper rolls.



The shingles that will adorn the roof of the tower are reproductions of those on the palatial Hirsch House in Sundsvall. "I'm all in favour of drawing as much inspiration as possible from architecture! The original architect should take it as a complement," declares Blomqvist.



## ABOUT THE NAME

The name Jupiter & Gran alludes to the blocks of Stenstan in Sundsvall, which are named after the planets, and to the source of the city's wealth, the surrounding forests. Gran means fir or spruce in Swedish. It also suits in that the company's timber houses are a mixture of new technology and traditional architecture: a meeting of heaven and earth – or Jupiter and gran.





# THE ROAD AHEAD IS OPEN

## OR ELECTRIFIED HGVS

TEXT HÅKAN NORBERG PHOTO MATTIAS BARDÅ

Fredrik Allard is leading the transition to battery electric trucks at vehicle manufacturer Scania. Together with the forest industry, he sees enormous opportunities to break new ground in electric heavy goods vehicles.

"We are both historically important industries in northern Europe, with high sustainability ambitions and ready access to green electricity.

We have all of the conditions to succeed," he says.







“In areas where electric power is sufficient, it will be the most economical option.”



**S**CANIA'S HEAD OFFICE in Södertälje was built in 1966, just in time for the company's 75th anniversary. It is no coincidence that the red brick facade is reminiscent of the old factories in the area; the material comes from the same brickworks and was chosen to symbolise tradition and quality. The company's offices are situated on the shore of the lake Saltskogsfjärden, known colloquially as Lake Scania, and alongside the Lake House restaurant, where we meet Fredrik Allard, Senior Vice President and Head of e-Mobility at Scania, during a break from the company's annual international management meeting, which is being held at the head office.

“All the others will probably come out just as I'm being photographed,” he notes with amusement, as well as a little apprehension.

Having spent the last hundred years perfecting the internal combustion engine, truck and bus manufacturer Scania – along with the rest of the automotive industry – is facing a transition to something else entirely: a fossil-free future. If you ask Allard, he will tell you that the solution is battery technology and electricity.

“Of course, there are other alternatives, but we are convinced that battery and charging technology is the future of our industry, as this comes out best in a cost-benefit analysis. Half of our European sales will be electric by 2030,” he says, listing a handful of trends to support his contention.

The first of these reveals why, initially at least, Scania's sales of electric trucks are likely to increase most within Europe. Namely that EU is ahead of the rest of the world in terms of both legal requirements and subsidies designed to reduce greenhouse gas emissions. The EU's Fit for 55 package of legislative proposals to achieve the target of reducing net greenhouse gas emissions by at least 55 per cent by 2030 compared to 1990 levels is the most obvious example.

Meanwhile, and almost certainly as a result of stricter legislation and higher EU climate ambitions, European transport buyers are increasingly demanding sustainable alternatives. This in turn has led road haulage companies to increase the percentage of electric vehicles in their fleets.





PHOTO SCANIA

## FACTS ABOUT SCANIA

Swedish bus and truck manufacturer Scania was founded in Malmö in 1891. Today, the company is owned by the German company Volkswagen AG. The company has approximately 50,000 employees in some 100 countries. Over the years, Scania's trucks have come out on top in industry tests for comfort, handling and fuel consumption. Today, the company has shifted focus to more sustainable transport systems, of which electrification is an important element.

The cost-benefit analysis to which Allard refers shows that the total operating cost of electric trucks is well on the way to undercutting the cost of operating equivalent diesel trucks. Although electric vehicles remain almost twice as expensive to buy, lower maintenance costs and falling electricity prices make them an increasingly interesting alternative economically.

"We are rapidly approaching a point where transport companies can break even within two years of investing in an electric vehicle," says Allard.

### THE IMPORTANCE OF PARTNERS TO DEVELOPMENT

One vital ingredient in Scania's product development is its Pilot Partners programme, in which the vehicle manufacturer collaborates with companies on joint pilot projects to identify the most promising solutions for future transport systems. Scania implements these projects on an ongoing basis in a number of business areas, including mining, long-distance transport, public transport and forestry.

"Scania is an innovative company but we are seldom first with an untried technology. Reliability is very important to our customers so we never launch anything on the market until we know that it will maintain sufficiently high quality," says Allard.

A truck should be able to run for 2 million kilometres, roughly ten times as far as a car, and that demands solid product development and thorough testing. Since 2022, Scania, SCA and the Forestry Research Institute of Sweden (Skogforsk) have been jointly evaluating an electric timber truck on the route between SCA's terminal in Gimonäs and the Obbola Paper Mill just outside Umeå. The timber truck, which was the first of its kind in the world, has now covered some 65,000 kilometres.

A diesel truck emits approximately 55 tonnes of carbon dioxide annually on the route being operated by the test vehicle. The electric timber truck runs on green electricity and has therefore reduced carbon dioxide emissions by approximately 110 tonnes during the test period.

The powertrain – i.e., the electric motor and the components that transmit the power to the ground – was developed in-house by Scania, but the test vehicle uses batteries designed for electric passenger cars. There was quite simply no alternative at the start of the test period.

"When we developed this pilot, we packaged car batteries so that we could test our new electric powertrain on a suitable route. And that has worked very well. The vehicle is capable of pulling heavy loads and the six speed gearbox makes it feel like you're driving with no load whatsoever," says Allard.



“Scania stands for something special. >  
There’s a pride here and a unique  
way of building trucks.”

During the two years that the electric timber truck has been tested, battery technology has caught up, making electric power a real alternative for heavy transport. The electric trucks that Scania manufactures today have a proprietary battery optimized for heavy transport. The charging capacity is 370 kW, which allows the battery to be fully charged in 45 minutes with megawatt charging (MCS), and the battery has a lifespan of up to 1.5 million kilometers.

“We want to own the technology in our vehicles, and batteries are no exception. We have a partnership with Swedish manufacturer Northvolt, which delivers cells to us so that we can manufacture batteries,” says Allard.

“Northvolt pioneered battery cell production in Europe. The partnership means we have local production and better insight into where our raw materials come from, and we don’t need to be dependent on deliveries from other countries,”

#### UNIQUE MODULAR SYSTEM FOR TRUCKS

Allard joined Scania as a trainee direct from KTH Royal Institute of Technology in Stockholm, where he earned a Degree of Master of Science in Industrial Engineering. He has now been working for the company for 28 years in a variety of roles.

“Many of us were keen on working for Scania after our studies and I’ve always been passionate about the product, technology and brand. Scania stands for something special. There’s a pride here and a unique way of building trucks that appealed to me,” he explains.

By unique way of building, he means that, rather than manufacturing vehicle models, Scania builds modular systems of components, which in turn can be put together to produce heavy goods vehicles in which engine power, fuel, cargo capacity, cab, transmission and so on can be adapted to each customer’s specific needs.

Fredrik Allard has worked at Scania in several locations in Sweden and internationally, including as head of the company’s largest truck factory, with over 2,000 employees, located in the Netherlands. When he returned to the headquarters in Södertälje six years later, responsible for all of Scania’s assembly plants in Europe, he realized that electrification was the biggest and most exciting challenge for the future. When the company created a new role nearly four years ago with responsibility for electrification across Scania, Fredrik was given the assignment.



“The greatest challenge was to reorganise our production so that we could assemble both electric and internal combustion vehicles on the same production line, but we succeeded and that’s where we are today,” he says.

#### TIMBER TRANSPORT WELL-SUITED TO ELECTRIC POWER

With battery technology and production challenges out of the way, it remains to address something that has long been viewed as a potential bottleneck in the electrification of heavy goods vehicles, namely charging infrastructure.

“This has been presented as a greater problem than it actually is. For short and medium-length journeys, charging will largely take place at haulage depots and destinations. Of course, long-distance haulage is dependent on public charging facilities and the challenge is to lay the electrical cables,” explains Allard.

In Sweden, the average distance timber is transported is 90 kilometres, making the forest industry a suitable candidate for electrification. Allard is at pains to point out that no one is in a position to cope with such major changes alone, and that it is important to identify partners with the same ambitions and objectives, which Scania has found in SCA.

“It’s as if the stars are in alignment. Northern Europe dominates both the forest and automotive industries, so here we have every opportunity to succeed with the electrification of road haulage.” 𐀀





FOTO: SCANIA



PHOTO ANTON AHLINDER / SCA

## INNOVATIONS IN ELECTRIC TIMBER TRUCKS

**THE ELECTRIC TIMBER TRUCK** that Scania, SCA, and the research institute Skogforsk are testing outside Umeå has so far reduced emissions by approximately 110 tons of carbon dioxide compared to a diesel truck. The timber truck is the first of its kind in the world and has now covered about 65,000 kilometers.

Now, SCA is introducing a new electric timber truck from Scania, also a world-first. It is the first electric timber truck equipped with its own crane, capable of collecting timber from the forest for further transport to a terminal. This takes the electrification of timber transport to a completely new area in the logistics chain – deep into the forest.

The new electric timber truck is part of the forestry industry's innovation project TREE\*, which aims for half of the industry's new trucks to be electric by 2030, potentially reducing carbon dioxide emissions by 260,000 tons.

\* TREE stands for "Transition to Efficient, Electrified Forestry Transport."



## REUSING THE OLYMPIC VILLAGE

**THE SUMMER OLYMPICS** in Paris may be over, but the Olympic Village lives on. The new timber buildings in which thousands of athletes and coaches were housed is now being transformed into permanent housing and a vibrant district of parks, businesses, shops and schools.

The entire Olympic Village, which uses timber as the principle material for almost half of its buildings, was conceived as a reuse project. Prefabricated timber elements were a vital part of the solution to both meeting environmental requirements in Paris and assembling under significant time constraints in an urban environment. The transformation is due to begin in November 2024, with completion scheduled for 2025, after which the neighbourhood will provide approximately 2,500 new homes.

PHOTO PARIS 2024 / RAPHAEL VRIET



# Wood fibre lid makes salad bar even more climate smart

**BY REPLACING PLASTIC LIDS** with a renewable lid in formed wood fibre, Swedish salad-bar giant Picadeli has taken another step in minimising its environmental impact. Picadeli started out in West Sweden in 2009 with a single salad bar. Today, the company's *Arctic Salad Bar* is installed in 2,000 supermarkets and convenience stores around Europe. The company's mission is to democratise healthy food and

it sells many millions of salads every year. Its distinctive green take-away bowl is also cellulose-based and the new lid will further reduce plastic waste by 120 tonnes per year. To incentivise recycling, customers can use an app to scan packaging and get cash back when they return it to a recycling station. Customers can also choose to donate directly to charity in the app.

PHOTO PICADELI



PHOTO FELIX GERLACH

## Advanced construction behind sleek landmark

**THE 12-METER-HIGH OBSERVATION TOWER** Kärven (The Sheaf) is drawing international attention to the Getterön Nature Reserve on Sweden's west coast. The design, resembling a bundle of twisted straws, was realized using advanced techniques through a collaboration between White Arkitekter and engineers from Ramboll. Kärven consists of 140 wooden beams held together by cut-out metal rings in a three-dimensional, web-like structure.

"We have worked with well-known wood dimensions. A 2x4 wooden beam is something most people can relate to; it's practically a symbol of wood construction. From a distance, they create a pattern, but up close, it's something you can hold in your hand," says architect Lukas Nordström from White Arkitekter in a press release.

The structure was inaugurated in August 2024.



# DIGITAL PRODUCT PASSPORTS

## Sustainability in focus

TEXT KERSTIN OLOFSSON PHOTO DENNIS ERSÖZ

Within a few years, virtually all products sold within the EU will have a Digital Product Passport, including sawn timber products. Product Passports will give customers easy access to a lot of data on the goods, including on sustainability. “This will make it easier to make sustainable choices and to reuse and recycle,” says Bernt Olausson, project manager for digitalisation at industry organisation Swedish Wood.

### **What are Digital Product Passports?**

Product passports mean that each product has a unique, traceable identity linked to a single source of information with data about that particular product. Data can range from technical properties to environmental and sustainability aspects, as well as various types of instructions. For sawn timber products, for example, there will be data on where the product was manufactured, its performance, the climate impact of the production process and expected working life.

### **Why introduce a requirement for Digital Product Passports?**

This is part of the EU’s efforts to transition to a more circular and sustainable society. Digital Product Passports are one measure in the new Ecodesign for Sustainable Products Regulation (ESPR), which among other things is intended to meet Europe’s commitments under the Paris Agreement.

Digital Product Passports will make it easier for businesses and consumers to make sustainable choices. They will also facilitate the transition to a more circular economy in which products can be reused, recycled or disposed of in an environmentally friendly manner. If, for example, you are renovating a house or demolishing a patio, it will be easier to decide how to reuse the timber,

as you will have access to more information about the characteristics of the timber.

### **What are the benefits for the timber products industry?**

Well, as wood is a sustainable material, the Digital Product Passport will be a means to demonstrate the specific advantages of the material. It makes it more competitive compared to other materials.

### **Who is affected by the requirement?**

Basically anyone who places a product on the market in the EU.

### **When will Digital Product Passports be ready?**

The first product groups, batteries and textiles, will have Digital Product Passports by 2027. Sawn timber products are in the product group construction products. No exact date has been decided for this group as yet but it should be a year or two later.

### **What’s next?**

The EU will prepare more detailed instructions for Digital Product Passports over the coming years, along with supplementary legislation for the various product groups. Meanwhile, Swedish Wood and other European industry organisations will be busy with various preparations, including



agreeing on standardised data templates for timber products. One challenge is that timber products often have a long lifecycle, around 100 years. We need to find a system that works in the long term.

#### **What do companies in the timber products industry need to do?**

Large companies need to be addressing the issue right now and begin preparing data on their products. Smaller companies can wait for a year or two. Some see this task as onerous, especially given the other requirements that are in the pipeline, including those linked to other legislation such as the Deforestation Regulation and Construction Products Regulation.

However, I am convinced that good support will be available when the time comes to act. Among other things, the EU is developing a digital tool to assist smaller companies with producing Digital Product Passports, and service companies will emerge with the necessary competence to answer any questions.

Digital Product Passports will demand a good deal of work and impose significant costs but they are a good way to highlight the benefits of wood. Product data will become an increasingly important means of competition. 📌



PHOTO BJÖRN LEIJON

^  
Bernt Olausson, project manager for digitalisation at industry organisation Swedish Wood.

#### **THE DIFFERENCE BETWEEN DIGITAL PRODUCT PASSPORTS AND EPD'S**

While both are instruments to promote transparency and sustainability, they differ in scope and purpose. The Digital Product Passport has broader scope, covering all information about a product, while an EPD is a thorough survey of a product's environmental impact, with the emphasis very much on greenhouse gas emissions and resources consumed. If you have already prepared EPD's for your products, the information in these can be added to the data in Digital Product Passports.





# Making the most of wood

TEXT HÅKAN NORBERG PHOTO ADOBE STOCK

Making wood products last longer and be usable in more than one product during their lifetime, without compromising the sustainable qualities of wood – that’s the focus of researcher Dennis Jones at Luleå University of Technology.

“If wooden buildings last longer, and thus store carbon dioxide for a longer period, it helps in achieving climate goals,” he says.





**S SUSTAINABILITY DEMANDS** increase, so does the need to find building materials with the lowest possible climate impact. Wood and wood products, with their ability to encapsulate and continue storing carbon dioxide throughout their lifespan, are becoming an increasingly attractive option with a promising future.

Dennis Jones and his colleagues at Luleå University of Technology in Skellefteå are researching the uses of wood and residual materials such as wood chips and sawdust. Regarding solid wood, their research focuses on advancing in three key areas: stability, meaning the wood's tendency to shrink and swell; durability, addressing the risk of wood being attacked by moisture, fungi, or insects; and fire resistance.

With smarter use and improved methods for treating wood, there is potential to make an already sustainable material even better.

"Impregnation against moisture is one example. We have had effective methods for a long time, but we are looking for water-based alternatives that are as efficient as today's methods," says Dennis Jones.

By finding ways to treat wood with more natural substances, wood products could also be reused to a greater extent than today, for example, as chipboards.

"The longer we can use wood without burning it, the better," says Dennis Jones.

Right now, Dennis and his colleagues have "eight or nine ideas on the wall" that they will work on in the coming months to try to find a solution.

He often returns to the idea of smart solutions – that we need to be clever and thoughtful in searching for new ways to use wood. And clever and thoughtful is how he seems to be himself. One morning at the breakfast table, he was flipping through some scientific papers.

"As one does," Dennis says, laughing.

He read about two simple chemicals that, when combined, made wood glow under UV light, and thought it was interesting. Perhaps it could prevent the lignin in the wood's surface from breaking down and turning gray, which can attract wasps to the cellulose-rich surface and damage the material. (The wasps want to use the cellulose for their nests.)

That moment sparked a ten-week research project for a visiting PhD student from France.

"We research all aspects of wood. Some people say, 'Well, wood is just wood,' but we are still learning how to use it best. You can do so much! And in the right context, even a tiny change can make a huge difference."

As for the future and what's next in his research, Dennis Jones is a bit secretive.

"There are some things I can't talk about yet, because it's really cutting-edge stuff. But I can say that wood is the material of the future. We just need to make the most of it." ✍

PHOTO: PRIVATE



^  
Dennis Jones, researcher at Luleå University of Technology.



# SUSTAINABLE PACKAGING

WITH 70% RECYCLED PLASTIC

TEXT KERSTIN OLOFSSON PHOTO AMANDA SJÖKVIST

The packaging around timber packets must protect against damp, dirt and sunlight. It also needs to be durable, so it does not tear during transport.

“SCA has started using new packaging consisting of 70 per cent recycled material, without compromising on quality. We are the first on the market with packaging with such a high percentage of recycled plastic,” says Jerry Larsson, President of SCA Wood.

**THE NEW PACKAGING** is manufactured by Trioworld, one of Europe’s leading producers of packaging solutions based on cover film. Thanks to close collaboration with its customers, Trioworld is a pioneer in developing circular plastics.

Having previously used up to 50 per cent recycled material in its timber cover film, the company is now launching Loop70, which uses an impressive 70 per cent recycled material.

“It’s been a challenge and demanded a lot of hard work, but we have succeeded in increasing the percentage of recycled plastic while maintaining quality and strength. We have a number of different materials at our disposal when we develop a ‘recipe’ for packaging and, after intensive efforts, we have arrived at a blend that works excellently,” says Trioworld product specialist Tom Rautakorpi.

## MAJOR CLIMATE BENEFITS

The high percentage of recycled material in the packaging offers significant climate benefits. It is anticipated that Loop70 will reduce greenhouse gas emissions by 54 per cent compared to the same product in virgin plastic.

“SCA is a climate-positive business and in 2023, we contributed climate benefits equivalent to over a quarter of Sweden’s carbon emissions. However, we are working hard to reduce our remaining emissions and packaging is something we have been looking at for a long time. Timber is a sustainable product and it’s important that the packaging is sustainable too,” says Jerry Larsson.

Another advantage of Trioworld’s Loop70 film is that it is manufactured in a plant just outside Sundsvall in northern Sweden, in close proximity to many of SCA’s facilities.

“Being able to minimise transport is clearly another positive for the climate,” says Jerry Larsson.











PHOTO TORBJÖRN BERGQVIST

Trioworld product specialist  
Tom Rautakorpi.

## FACTS

Trioworld's Loop70 timber cover film means that at least 70 per cent of the product is PCR, which refers to plastic that has been recycled after being used for its intended purpose. PCR stands for Post Consumer Recyclates.

The first SCA mills to use the new packaging from Trioworld were the Rundvik and Gällö sawmills and the planing mills in Stugun and Tunadal.

### CERTIFICATION IS A GUARANTEE

Meanwhile, Trioworld is working continuously to identify new solutions to further reduce the carbon footprint of its products.

"As things stand, it is impossible to make timber packaging from 100 per cent recycled material without losing many of the attributes the packaging needs to have. There are however other ways to proceed. Among other things, we are looking at making more bio-based materials, and that's somewhere we see exciting opportunities," says Tom Rautakorpi.

Trioworld's use of recycled materials on its production lines is independently audited, something that customers are increasingly demanding.

"The certification is carried out by Recyclclass and ensures traceability in the supply chain. We are the first to offer a product with 70 percent PCR, meaning plastic that has been recycled after consumer use, and to be able to verify this through a Recyclclass certification," says Tom Rautakorpi.

### MORE WASTE PLASTIC NEEDS TO BE COLLECTED

Demand for recycled packaging is increasing in many markets, both as a result of political decisions and because businesses and industry organisations are increasingly focused on sustainability. However, any general increase in the percentage of recycled plastic is dependent on more waste material being collected.

"Alas, at present far too much packaging is thrown away, so we are working hard to increase awareness of how it should be sorted and collected. Plastic waste is a raw material that we want to take advantage of and, at the same time, prevent it going for incineration. One challenge is the fact that packaging is handled at so many different locations, from builders' merchants to planing mills, construction sites and people's homes," Tom Rautakorpi notes.

In addition to informing about the importance of collecting waste material, Trioworld is building recycling plants around Europe to secure access to recycled plastic.

"Society in general is moving towards greater circularity. We are working proactively to offer circular packaging solutions while maintaining quality, in line with the EU's climate targets. Close collaboration with customers at the forefront of sustainability is crucial to our success." 🌱





**Loop 70%**  
Recycled  
plastic

2436 **Triowo**



## BEIJER WELCOMES SUSTAINABLE PACKAGING

**“It’s valuable to have suppliers who take the lead and show the possibilities when it comes to sustainable packaging,” says Alexandra Rosenqvist, Environmental and Sustainability Manager at the builders’ merchant Beijer, one of SCA’s timber customers.**

She emphasizes that it’s becoming increasingly important to report concrete data on the environmental impact of building products, especially regarding their impact on the climate. This applies not only to the products themselves but also to the packaging. The demand for this information is partly driven by the upcoming requirement for life cycle assessments, known as EPD’s.

“With Loop70, SCA demonstrates that further steps can be taken in packaging sustainability. At Beijer, we have high standards for plastic materials, but now SCA has exceeded them, which opens up new possibilities,” says Alexandra Rosenqvist.

Beijer will increase its efforts in recycling packaging and other materials.

“We are raising our internal standards and making several investments to ensure that a larger proportion of materials are sorted correctly at our various units,” says Alexandra Rosenqvist.



# Strong relationships in a growing market

TEXT HÅKAN NORBERG PHOTO THE TIMBER GROUP







Recent investments at The Timber Group sawmill in Herringswell has increased the capacity with 22 per cent.

The Timber Group imports and processes timber products that through its own builders' merchants reach the construction industry and private customers throughout the UK. The focus is on development and sustainability.

"We work with reliable suppliers of sustainable timber products and have a long-standing relationship with SCA," says Christopher Wait, Product Manager at The Timber Group.

**R**IDGEONS FOREST PRODUCTS, which became part of Huws Gray in 2018, was brought into The Timber Group brand in January 2023. The Timber Group, which was originally part of the acquisition of the stable of companies within Grafton Group, came into Huws Gray in June 2021, making the company the largest independent building materials supplier in the UK.

The company supplies building materials to all parts of the timber trade and construction industry in England, Scotland, and Wales. Its timber offering includes joists, planed softwood, softwood mouldings, claddings, decking, treated timber, sleepers, timber battens and fence panels, and has full chain of custody certification.

Christopher Wait is Product Manager and works with the import and distribution of timber at The Timber Group in Herringswell, previously Ridgeons Forest Products.

"I handle purchasing both for The Timber Group's customers and for further distribution within Huws Gray across the UK," he says.

He describes a growing business, marked by development. Both Huws Gray and The Timber Group are expanding through acquisitions of companies that fit into the group's culture of family-owned businesses with strong relationships with both customers and suppliers.

#### INVESTMENTS FOR THE FUTURE

The Timber Group has recently opened a new production line at the sawmill on its twelve acre site in Herringswell, which focuses on softwood, planed square edged and mouldings, treated softwood decking and treated softwood cladding. The production is being run on five modern high speed sawing and machining lines to guarantee continuity of supply and consistent product quality.

The recent investment in line five has resulted in a 22 per cent increase on the mill's overall capacity.

"Due to the innovation of the Stenner and Weinig machinery and handling equipment, the mill can operate at faster speeds without compromising the quality finish The Timber Group is known for," says Christopher Wait.



Christopher Wait, Product Manager, The Timber Group, and Markus Henningsson, Marketing Director, SCA Wood.





◀ The Timber Group is replacing diesel-powered sideloaders with electric ones.

The company is now investing in electric sideloaders to replace the diesel-powered ones on site, which has been an ongoing project since it started in 2021.

“It’s exciting! Both the fact that we are growing and that we are taking new steps in sustainability. And as a timber company, minimizing waste is deeply ingrained in the business, so we make use of all by-products,” he says.

Today, The Timber Group employs just under 250 people, and Huws Gray has over 5,500 employees and more than 250 building material retailers in total. Christopher started in the industry as a temporary worker, moved on to become a machine operator at the sawmill, and later to purchasing. Several of his colleagues have followed a similar career path, from worker to manager.

“I think it’s good that many of us know what actually happens with the timber and have respect for it. It’s a strength,” he says.

#### EXPLORING AI SOLUTIONS

The Timber Group and Huws Gray is currently exploring AI solutions, initially to reduce administrative task and improve efficiency in its operations.

“With the use of OCR we can convert supplier and customer documents into digital information, which in turn will communicate with our own systems,” says Wait and continues:

“Once we have achieved our initial goals, we will then look to apply AI to wider professional functions such as purchasing, production planning, transport planning and stock monitoring. This is a part of our overall strategy.”

Last year, SCA delivered significant amounts of high-quality pine and spruce to The Timber Group in Herringswell, where it is processed into joinery and other visible wood products.

“Our business with SCA is growing as our own operations expand,” says Christopher Wait.

#### LONG-TERM RELATIONSHIPS ARE IMPORTANT

This is how Markus Henningsson, Marketing Director at SCA Wood, describes the collaboration with The Timber Group.

“We strive to work with customers who we believe will be future leaders in their market, and The Timber Group is such a customer in the UK. We have a long business history together and are very happy to work and grow alongside them.”

Markus highlights The Timber Group’s focus on development, innovation, and efficiency, citing the company’s investments in both building material retailers and production facilities for further processing as examples.

“Long-term relationships are key for us, especially since we operate our own shipping systems to the UK. In that case, customers like The Timber Group are very important,” he says. ☞





## THE HAPPY MAIN STATION

**DANISH STUDIO** Henning Larsen Architects has won the competition for the revitalization and reconstruction of the main railway station area in Prague with its design Šťastný Hlavák (Happy Main Station). Central to the design is a large timber canopy, unifying the surrounding park, central station, and communal transport center. To host a new tram stop and city transport plan, the glulam roof will be lifted 13 meters above the terminal floor replacing the existing steel girder and parking deck.

The design of the whole area emphasises sustainability, micromobility and bringing life back to Vrchlického Sady park. The project started in 2023 and will be finished by 2033.







# Beautiful and sustainable

IN AN ARCTIC CLIMATE

TEXT KERSTIN OLOFSSON PHOTO MONICA GEBHARDT





Situated in the far reaches of northeastern Norway, the small Arctic town of Vadsø offers both beautiful scenery and a harsh climate. When Varanger Invest was planning to convert a commercial property into an apartment building, durable materials were the order of the day, as well as aesthetic considerations.

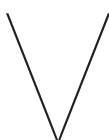
"For the glazed balconies, we were looking for cladding with that little something extra. It was then we came upon the wavy version of SCA Lynx, which gives a soft and beautiful impression," says Håvar Gaski Brevik, one of the partners in Varanger Invest.







The balcony walls are clad in the wavy >  
version of SCA Lynx. The effect of the light  
falling on the panels changes constantly  
depending on the time of day and season.  
SCA Lynx also decorates the entrance.



**VADSØ IS ONE OF THE** coastal  
communities on the route of the  
Hurtigrutten Coastal Express.  
Tourists are often fascinated by  
the vastness of the rugged Arctic

landscape. In summer, visitors can enjoy the  
midnight sun, while in winter there is a chance of  
seeing the aurora borealis.

#### SEA VIEWS

Håvar Gaski Brevik and his brother Torjus run  
Varanger Invest here in Vadsø, renovating and  
building property. Earlier this year, an interesting  
business opportunity presented itself. The building  
that was once home to the local newspaper was  
up for sale, in what they considered to be a perfect  
location.

“The building is in the town centre only a few  
metres from the seafront. The views across the  
harbour and the Barents Sea are amazing,” says  
Håvar Gaski Brevik.

After making a successful bid, the brothers  
began planning. They decided to tear out  
everything down to the concrete frame and begin

from scratch. The entire floor plan was redrawn  
in collaboration with an architect and the building  
was transformed for residential use, with nine  
apartments on three floors and a garage on the  
bottom level.

The obvious thing was to take full advantage of the  
views. The apartments were therefore designed with  
generous balconies, glazed to extend the season.

“The balconies are both a splendid place to  
spend time and an ornament on the building,”  
explains Håvar Gaski Brevik.

#### STANDING UP TO WIND AND SALT

When the time came to choose materials for the  
building, Varanger Invest was focused on two  
things: durability and beauty.

“The materials need to be able to cope with  
the harsh weather conditions in Vadsø without  
requiring too much maintenance. The area doesn’t  
get a great deal of precipitation, but it is often  
cold and windy. And as the building is only a few  
metres away from the sea there’s a lot of salt in the  
air, which is something else we have to take into  
account,” says Håvar Gaski Brevik.





^  
Håvar Gaski Brevik, partner in  
Varanger Invest.

#### FACTS

**Project:** Transforming a commercial property into an apartment building.

**Developer:** Varanger Invest.

**Architect:** 70°N arkitektur.

**Number of floors:** Four, three residential and one parking.

**Number of apartments:** Nine.

**Emphasis when choosing materials:** Sustainability and aesthetics.

**Paneling:** SCA Lynx, Designed by Camilla Schlyter, A1 and A4 variants.

#### SHADOW-EFFECT PANELLING

Aesthetic considerations were also important to Håvar Gaski Brevik and his brother and they were keen to do something out of the ordinary on the internal balcony walls, something that stood out. At a trade fair, they came across SCA Lynx, an exterior panel that can be ordered in a wavy design.

“The wavy version of SCA Lynx is different and dramatic. The undulating shape gives a softer impression and, in addition to the balcony walls, we also chose to use it on the entrance to the building. For the balcony ceilings, we chose the plain version,” says Håvar Gaski Brevik.

The wavy version of SCA Lynx also has an additional effect in that it creates shifting shadows as the sun moves across the sky. The effect changes constantly depending on how the light falls during the day and with the changing seasons.

“It’s much more vibrant and varied,” Håvar Gaski Brevik affirms.

The panels around the entrance will be highly exposed to weather and wind and, as the balcony glazing can be opened up, these panels too will be exposed to the Arctic climate.

“But of course, wood is very durable. That’s one of the main reasons we chose it,” says Håvar Gaski Brevik.

#### MATCHES THE FLOWING FACADE

SCA Lynx perfectly matches the other materials chosen for the building’s exterior.

“The facade is clad in Plannja Sinus a similarly undulating sheet metal. The wavy version of SCA Lynx echoes this shape really well.”

The sheet metal is metallic silver, while the SCA Lynx is in a colour called *Natural Aged*, a bright and warm shade of beige. The colour combination is both harmonious and striking.

“It will turn out really well, just as we had envisioned,” says Håvar Gaski Brevik. ☞



# “Everything will be impacted by AI”

TEXT HÅKAN NORBERG PHOTO MATTIAS BARDÅ

AI researcher Danica Kragic Jensfelt envisions a future where robots assist when humans aren't enough, not just in dangerous industrial jobs, where we already see them, but also in healthcare and elderly care.

“All areas will be impacted by this development, but some will take longer than others,” she says.

**D**ANICA KRAGIC JENSFELT is an engineer, a professor of computer science, and a researcher in artificial intelligence, robotics, and machine learning at the Royal Institute of Technology (KTH) in Stockholm. She's on the boards of companies like H&M, Saab, and the Wallenberg family's holding company FAM, and has been named Sweden's AI Person of the Year by the industry organization Techsverige.

Eight years ago, in 2016, Danica Kragic Jensfelt said the following in Swedish national radio:

“I want to experience a society where people don't have to perform jobs that are dangerous or boring. A society where everyone, regardless of their cognitive abilities, can live a good life. A society where the elderly can continue living at

home and get the help they need. A society with safe traffic that doesn't harm nature. Much of this can be achieved with robotization.”

Since then, artificial intelligence (AI) has become a term on everyone's lips, but so far, the progress has mostly been theoretical. Systems impress us with text, images, and analyses, while breakthroughs in practical applications have been more modest.

“I still want and hope for the same things I talked about then, but systems that are physical and interact with humans remain a big challenge,” says Danica Kragic Jensfelt, continuing:

“We humans have different abilities and expectations, and our focus varies. So how do we build systems and robots that work for everyone, in all situations?”











### THE PRACTICAL SIDE IS COMPLEX

Creating a robot that can change bed linens, with all the movements and variations that involves, is far more complicated than creating a system that can generate text and images based on input. But there are also other reasons why progress in the theoretical realm outpaces the practical.

"We are willing to pay a lot for thinking, but not as much for doing. That's why the focus often falls on high-paying, knowledge-intensive jobs rather than practical, lower-paid ones," says Danica.

She uses her strong interest in sewing as an example. Society doesn't value sewing services highly, but her academic expertise is very valuable in the job market. She explains that cognitive and intellectual skills have historically been reserved for the upper classes. It took money to access education, but almost anyone could perform physical tasks.

"Now we are enchanted by AI's ability to do things that require a lot of knowledge, like answering questions or generating images,

but we still have almost no technical solutions that can perform the physical tasks humans do for each other."

Danica Kragic Jensfelt is eager to highlight the potential of robotics and AI in healthcare. The topic can be sensitive, even taboo, but Danica addresses social norms and values directly and pragmatically.

"If there's a machine that can wipe your bottom when you get old, you'll prefer that to having your son, daughter, or a home care worker do it," she says.

Her candor about robots caring for people stems from personal experience. Danica's son has special needs, and after caring for him for 16 years, she sees no issue with getting assistance from a machine.

"Why would it be negative to have a robot care for my son based on his specific needs and conditions? We assume that just because we're humans, we can take care of other humans, but that's not always true. And we have our limits."



◀ "Language models are based on clear rules, on grammar. That's very simple compared to the physical world."

### THINKING AND FEELING ROBOTS

How does a healthcare worker handle a person with special needs who might suddenly start screaming and not stop? How does a school taxi driver or a teacher respond in such situations? And how can an exhausted parent be present for their child during the most challenging moments?

Danica Kragic Jensfelt believes our lives would improve if we had access to "thinking and feeling" robots in these situations.

"Having these thoughts doesn't make you a bad person; it makes you honest. What if a robot could respond to my son as lovingly as I do when I'm at my best, even in tough moments? We'd avoid many of the difficult times and instead focus on the things we enjoy when we're together."

Danica has bold ideas in other areas too, such as self-driving cars. She says it will take a long time and involve large, unnecessary investments to get self-driving cars to coexist with human-driven cars, as people don't always follow the rules, which can cause problems.

"What if we could politically decide to ban human-driven cars? Then, instead, self-driving cars could be out there, available to book via an app. Think of the possibilities for urban planning!" ✍

Read Danica Kragic Jensfelt's article, about what robots are doing today and what they could do in the future with the help of AI, including in the forest industry.



# Taking AI from thinking to doing

**MY RESEARCH COVERS AREAS** of Artificial Intelligence and robotics. The term "Artificial Intelligence", originally coined by John McCarthy in 1956, aimed at finding how to make machines that use language, generate concepts, solve problems and improve themselves through learning and interaction. McCarthy and colleagues believed they need a summer to achieve this. Despite huge investments and lots of academic and industrial research, only the last couple of years have demonstrated some of the abilities in machines they hoped for long ago.

Still, the abilities of generating images, text or audio streams, do not require physical interaction with the world – that is, doing most of the activities humans use their hands and arms for. This brings us to robots – machines that we envision have the cognitive (thinking) and mechanical (doing) intelligence. Imagine your day – from waking up to going to bed – how much is thinking and how much is doing – and how much is both at the same time.

Human history is full of inventions (and dreams!) that focused on simplifying and automating human jobs, making them safer and more creative. Robots have originally been intended for dealing with so called 3D jobs: dirty, dull and dangerous jobs – jobs humans are not able to or should not do. Even if there are still so many examples of jobs humans should not be doing, there are areas where integration of AI and robots provides lots of hope for a brighter future.

Drones are today used to monitor forest, identify single trees that need to be cut, and not before long, we will have machines that can extract trees from the air. There will be robots that can clean parks from garbage, collect plastic in the ocean and harvest blueberries.

There already exist some solutions but these may not yet be fully autonomous or able to deal with heavy conditions such as rain, wind or snow. There are still no robots that can hold a hand of a blind person and help the person to cross the road, there are no robots that can change diapers on a baby or shower a human with limited body movements. There are no commercial robots that can help large-scale garbage sorting or mend upscale clothing items or shoes.

The ideas, wishes and promises continue to live and there are huge initiatives all over the world to achieve some of these. Until then, we will continue to be mesmerized by algorithms that can generate images and translate text, generate audio and summarize information, visualize complex data and identify suspicious banking transactions. We should not forget that these cover only the software part, and problems dealing with their explainability, transparency and privacy are still not solved.

The generating of an image or an audio stream we dislike may not be such a huge problem, but a robot that cannot stop wiping or massaging your back, may.



DANICA KRAGIC JENSFELT  
AI RESEARCHER





# “Balanced implementation will be crucial”

## NEW EU FRAMEWORK FOR RESTORING NATURE

TEXT KERSTIN OLOFSSON PHOTO MICHAEL ENGMAN

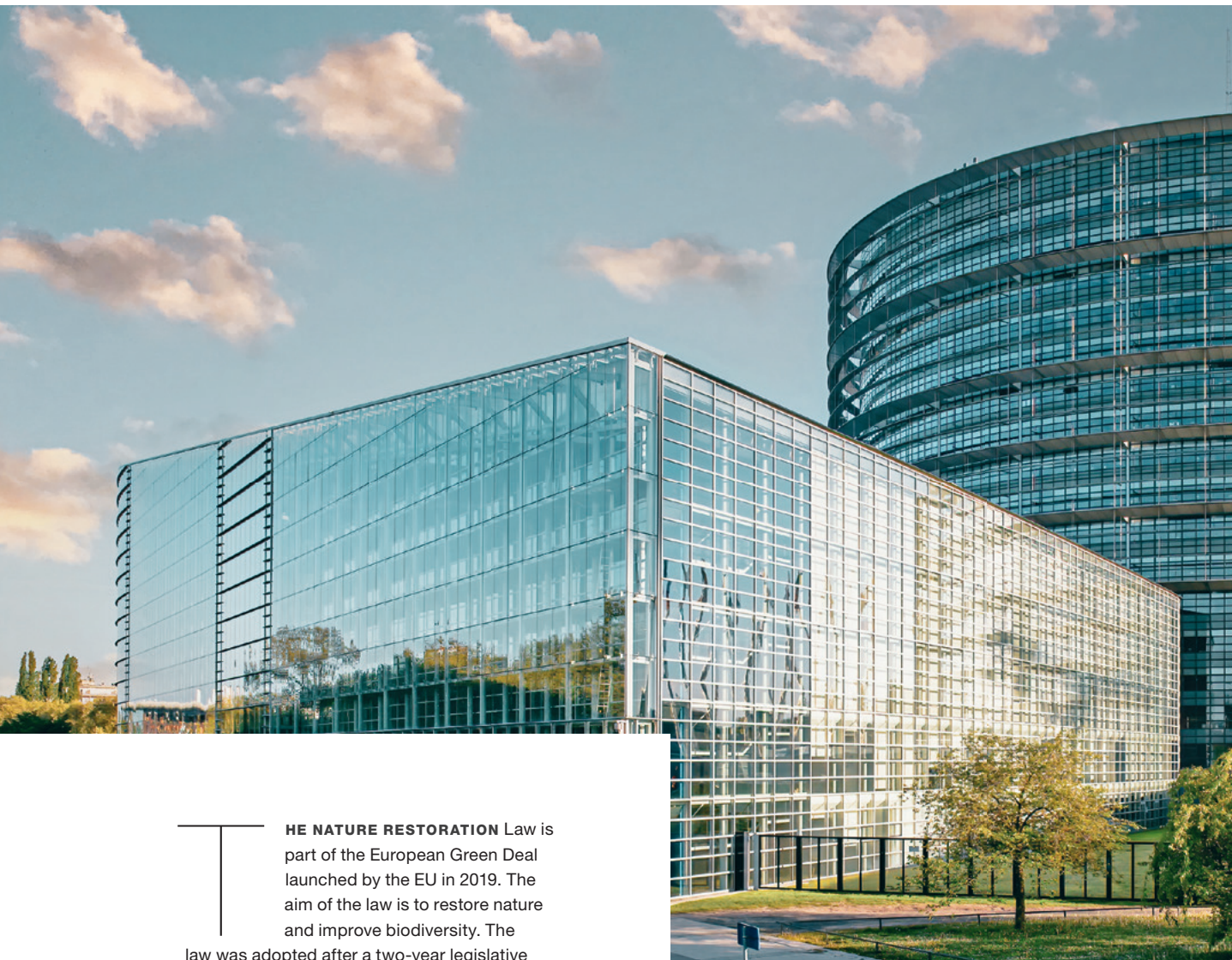
In June, EU environment ministers met to formally adopt the new Nature Restoration Law. There is a risk that, in combination with other EU legislation, the new law will reduce access to climate-smart forest raw materials. “Naturally, it is important to improve the conditions for biodiversity, but it needs to be done in a manner that is not counterproductive to either the climate or access to timber products,” says Anders Edholm, Senior Vice President Sustainability and Communications at SCA.











**THE NATURE RESTORATION** Law is part of the European Green Deal launched by the EU in 2019. The aim of the law is to restore nature and improve biodiversity. The law was adopted after a two-year legislative process marked by strong criticism from many stakeholders.

“The purpose is fundamentally good and it is entirely in line with SCA’s focus on practising sustainable forestry. That said, there are many shortcomings in how the issues are being addressed, even if the final law is an improvement on the original proposal,” says Anders Edholm.

#### PLANS WITHIN TWO YEARS

The law contains various targets for how much nature is to be restored by 2030, 2040 and 2050. However, at present there is considerable uncertainty about what this will mean in practice. Each Member State is expected to submit a National Restoration Plan to the European Commission within two years of the law coming into force, identifying areas to restore.

The law provides a legally-binding framework of targets. It is up to each Member State to decide how the targets are to be achieved, with the reservation that all National Restoration Plans are subject to Commission approval.

“Balanced implementation of the law is crucial if the law is not to have a negative impact on access to raw materials. This is particularly important in Sweden, as our current management of certain forest-related issues differs significantly from other EU countries. For example, we need to be closer to other countries in terms of how we assess the status of habitat types. Above all, Sweden needs to change the reference year we use to assess current status. That is absolutely crucial,” says Anders Edholm.

#### VARYING CONDITIONS

Thus far, Sweden has compared the status of habitat types to assumed pre-industrial conditions, i.e., the mid-nineteenth century. Many other Member States compare the prevalence of habitat types at the time of them joining the EU, which means over a century later than Sweden’s reference year. Hence the conditions are completely different.





PHOTO KRISTOFER LÖNNÄ



Anders Edholm, Senior Vice President Sustainability and Communications at SCA.

### **PART OF THE EU'S GREEN DEAL**

As part of the EU's Green Deal, there is legislation aimed at achieving the goal of a climate-neutral EU by 2050 and enhanced biodiversity. Two key components of the Green Deal are the Nature Restoration Law and the EU Deforestation Regulation (EUDR). The Nature Restoration Law aims to restore nature and improve biodiversity, while the EUDR aims to combat deforestation both within the EU and in countries that export to the EU.



PHOTO ADOBE STOCK

"The Swedish Government has indicated that it would like to see a change in this regard, so we have high hopes," says Anders Edholm, who argues that the Nature Restoration Law will have had limited impact on Swedish forestry by 2030. What happens then depends on how Sweden chooses to implement the law.

"Meanwhile, there are many other EU rules and directives that may have a great impact in forestry throughout the EU. Not least the Regulation on land use, land use change, and forestry (LULUCF), which regulates the size of carbon sinks each Member State is to provide in order to achieve the EU's joint climate targets," says Anders Edholm.

### **IN NEED OF CLIMATE-SMART RAW MATERIALS**

Anders Edholm argues that the general trend is towards harvesting less timber from European forestry, implying reduced access to climate-smart raw materials.

"Reducing access to these raw materials is counterproductive to the transition to a sustainable society. If we are to reduce our need for fossil materials, we need more not less renewable raw materials from the forest. The politicians must see the big picture and ensure that the forest industry can continue to be a cornerstone of the green transition," says Anders Edholm, who points out that there is no conflict whatsoever between high environmental ambitions and active forestry.

"One way to develop biodiversity is to take more active measures in the areas already set aside. Rewetting and prescribed burns are examples of measures that benefit many species. Alternative harvesting methods and the general consideration given to nature in all areas under cultivation are also vital and effective measures." ✎



# SCA's processed products as BIM objects

TEXT KERSTIN OLOFSSON PHOTO ADOBE STOCK

A building information modelling (BIM) platform is a digital library of the various objects needed for a building project. literally from floor to roof. Using BIMobject, architects and other designers can create digital models of their construction project, while simultaneously collating all of the technical information about the building components. "Our processed wood products, such as exterior cladding, decking, and construction timber, are now available on bimobject.com," says Ville Huittinen, Head of SCA Wood Scandinavia.

**THE PURPOSE OF BIM** is to facilitate building projects along the value chain, from design through to construction and implementation. BIMobject contains a wide range of content, such as different

types of roofing, facades, windows and furniture.

Using objects, project designers can create a 3D model of a building and find important information about the various components of the building gathered in a single place, including everything from dimensions and weight to performance data and colour options.

"This makes life much easier and allows architects to quickly and simply grasp the properties of the products, in software that they sit and work with on a daily basis. And as every object is dynamic, the architect can, for example, test different dimensions or colours and compare various choices," says Magnus Karlsson, Nordic Sales Director at BIMobject.

## SPECIFIC PROPERTIES

In addition to suppliers uploading their own products to a BIM platform, designers can use so-called generic objects. These are objects that represent a given category of product, such as clay roof tiles or timber cladding.

"However, many architects prefer to use manufactures' specific objects, with their exact properties," says Magnus Karlsson.

There are a number BIM platforms, bimobject.com being the largest with 4.5 million users worldwide. For some time now, SCA's processed wood products have been available as selectable objects on their platform, including exterior cladding where allows

customers to mix and match different profiles, and products where the architect can choose from all of SCA's profiles and any color system and shade from Jotun's range. Decking and construction timber are also available as selectable objects.

## EASIER TO WORK WITH

"The working methods of architects and designers have completely changed and, today, BIM is a very important tool for them. By uploading our products, we hope to make their day-to-day lives easier.

Since all the technical product data is available, it is easier to see which products best meet the client's specific requirements and wishes. This makes it even more convenient to use SCA's products," says Ville Huittinen, who underlines the importance of this step to the use of timber in general.

"The more timber products that are available as BIM objects, the greater the chances that a project designer will choose timber alternatives."

A great deal of work has been put into ensuring that the files for SCA's products are easy for designers to work with.

"The emphasis is on user friendliness, so it's important that the files aren't so large that they weigh down the model. The files contain a lot of data, but at the same time they are easy to work with," says Magnus Karlsson.

## ADVANTAGEOUS FOR SUSTAINABLE ALTERNATIVES

BIM also has environmental advantages. As product specifications include the sustainability data that SCA has prepared for products'



EPDs (Environmental Product Declarations). An EPD is a comprehensive report on the environmental impact of a product, from the forest to the gate of the customer.

“The fact that this information is included makes bimobject.com an important tool for easily choosing sustainable alternatives, which is the be-all and end-all these days. During the year, we will also be presenting this information in a new way, to make it easier for visitors to actually calculate sustainability factors,” says Magnus Karlsson.

SCA is a pilot user of this feature, starting in the fourth quarter of this year.

Another advantage when designing projects using BIM is that it makes it easier to make exact calculations of how much material is required, and thus accurate material lists.

“This means less material waste, which is good for both the environment and the economy,” says Magnus Karlsson.

#### CONTRIBUTING TO THE TRANSITION

The construction industry accounts for approximately 40 percent of the world’s carbon dioxide emissions and needs a rapid transition to renewable materials and circular processes.

“By making our wood products easily accessible in BIM, we contribute to this transition. It becomes easier to choose wood products, which are long-lasting, climate-smart, and renewable,” says Ville Huittinen.

SCA’s wood products are currently available as BIM objects for the Swedish and Norwegian markets. They will soon also be available in the UK. Work continues to make more products available as BIM objects and expand to more markets. 🌱



PHOTO BIMOBJECT



PHOTO TORBJÖRN BERGKVIST

Magnus Karlsson, BIMobject, and Ville Huittinen, SCA.



## AI robot removes nails from planks

An AI-controlled robot that pulls nails out of planks can potentially reclaim millions of tonnes of wood that would otherwise go to waste. US company Urban Machine is currently training an AI to give used timber new life.

**FOUNDED IN 2021, URBAN MACHINE** is now well on the way to developing a commercial AI-controlled robot that can identify and extract nails from planks to salvage millions of tons of wood waste from construction and demolition. Founder and CEO Eric Law hatched the business idea while looking for a field in which his engineering skills could make a real difference in terms of sustainability – and turn a profit at the same time

The lack of reuse or recycling streams for timber in the United States means that high-quality materials are often sent for incineration or ground down for use as filling material. According to the United States Environmental Protection Agency, in 2018 alone 12.2 million tons of wood was disposed of in landfills.

If all of the nails can be removed from planks, reuse immediately becomes easier. Urban Machine is teaching an AI to recognise the shapes of various types of bulk fasteners, such as nails, screws and staples, and the best approach to extracting them from the wood. The planks are passed through the machine, which scans the planks and brushes off dirt and rust before the AI-controlled robot simultaneously extracts the fasteners from all four planes of wood. Finally, the wood passes through a metal detector to ensure it is metal-free and ready for new construction. Otherwise, it is passed through the machine again.

Thus far, Urban Machine is running the robot in its own facility just outside San Francisco. Among those showing the most interest in the reclaimed planks are Californian restaurants and vineyards that are keen to incorporate beautiful, unique materials with an interesting history into their dining rooms and visitor centres – and strengthen their environmental credentials. Urban Machine's long-term aim is to supply its invention to demolition sites and recycling plants, so that those on site can remove the nails and see to it that the timber is reused.



# BUY THESE TROUSERS!



## But that's not all we want you to do

The Vidda Trousers has been tested on the trail for over 25 years now. We've developed them to be durable, functional and timeless, and produced them with the goal of creating as little environmental impact as we can. They are made to last for decades of use, to eventually be passed on to the next generation or be resold on the second hand market.

This way, fewer products need to be produced, less energy needs to be consumed and fewer products will end up as waste. But for that chain of events to work, you need to do your part and use them for the longest time possible. To care for them and repair them if the need arises, and most importantly – not replace them with a new pair every one or two seasons.

We will support you along the way, with our expert-advice on owner's care and our widely available repair services.

What do you say? We hope this all makes sense to you as much as it makes sense to us, and as much as it makes sense to the environment.





