

SetraNews

January 2015



**FACADE
IN FOCUS**

Page 12

**“We already have
the customer in
mind in the forest”**

Setra Kastet invests in customised solutions Page 4

Building system

NEW STANDARD
HOUSE CONCEPT FROM
PLUSSHUS Page 8

Setra Wood School

LEARN MORE ABOUT
WOODEN FACADES
Page 14

Future

CLASSROOM WITH
WOOD FROM FLOOR
TO CEILING Page 15

FINALLY: Charlotte wants to explain what sustainability is really all about Page 16

Responsibility all the way

SETRA'S MISSION is to process raw material from responsibly managed forests and offer climate-friendly products and solutions for building and living in a global market. This is a mission that requires us to accept responsibility throughout the value chain – from the forest all the way to the customer.

We want to utilise and make something really good from a pine that has grown for several generations. The entire log must be used and nothing wasted because we have failed to think it through. The part of the tree that does not become a beautiful wooden floor or a sawn plank can become raw material for other products.

IN THIS ISSUE of SetraNews you can read a feature article about Setra Kastet and how a log which will become a glulam beam in a Japanese house is selected straight out of the Swedish forest. Well thought-out concepts and solutions in the entire chain from forest to end product minimise waste. It is about getting it right from the start and having a dialogue with customers and suppliers so that together we can find constructive and resource-efficient solutions.

Another example of accepting responsibility for doing things right from the start is the development of the new standard house concept for Plusshus. Customer demands for short lead times from idea to occupancy are being met with industrial-scale production and standardised processes. And this together with quality and design have a given place in the offering. Read more about Plusshus and how we can build for the future on page 8.

WOOD IS AN ancient building material but as a renewable resource it also has an important role in tomorrow's society. We have a responsibility to develop and share our knowledge of wood as a material. Under the heading Setra Wood School in this issue you can learn more about wooden facades. You can also read about facade trends and the architect's view on the place of wooden facades in the construction of modern wooden buildings.

Let's make 2015 a really good wood year!

Hannele Arvonen
CEO



SetraNews is Setra's customer newsletter. It is published in Swedish and English for customers, employees and other stakeholders in Sweden and abroad. The purpose of the newsletter is to spread information about the company and tell readers about the latest news. **Print run:** 5,300.

Address: Setra Group, Box 3027, SE-169 03 Solna
Tel: +46 8 705 03 00 **E-mail:** setranews@setragroup.com

Responsible publisher: Lotta Löwhagen Lundberg
Editor: Joakim Gerhardsson **Text:** Katarina Brandt, Joakim Gerhardsson

Design: Blackboard Publishing **Printing:** Ljungbergs Tryckeri AB

Cover photo: Ove Sjögren, Mill Manager, Setra Kastet.

Photo: Ola Högberg.

Subscription: Would you like your personal copy of SetraNews or do you wish to unsubscribe? Do you have any special requests about subject matter or opinions on the content? You are most welcome to contact us via e-mail at setranews@setragroup.com.



CHILDREN'S VILLAGE IN VIETNAM TO BE INAUGURATED SOON

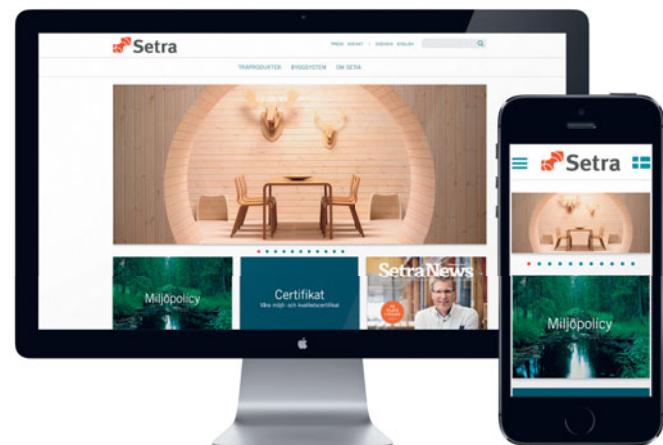
COOPERATION Construction of SOS Children's Villages' new village in Thai Binh in Vietnam has gone according to plan. Before the end of the year 75 children had moved into the village which will now be inaugurated at the end of January. It was in 2013 that Setra celebrated its tenth anniversary by starting a cooperation with SOS Children's Villages. Contributions from Setra and other sponsor companies will give several of the children in Thai Binh an opportunity to grow up under secure conditions. For more than 60 years, in their 500 children's villages

around the world, SOS Children's Villages has offered orphaned or neglected children a new home, a family and an education. They also work to provide support to vulnerable families so that children do not need to be orphaned or neglected.



NEW WEBSITE LAUNCHED

WOULD YOU LIKE TO KNOW MORE ABOUT SETRA? Visit our new website which automatically adjusts itself depending on whether you are surfing from a computer, tablet or mobile phone. Just go to **www.setragroup.com**.



Swedish wood in place in Morocco

EXPORT In November, the trade organisation Swedish Wood arranged a conference in Casablanca where the target groups were designers, architects and wood processing industry professionals. The main theme was to show possibilities for Swedish wood in Moroccan interior design and architecture.

The conference attracted over 200 participants. A much appreciated element was an exhibition of furniture created by ten selected Moroccan designers on the theme "Swedish wood meets Moroccan creativity and woodworking tradition". The exhibition was such a success that it is now being taken on tour.

Robert Endsjö is Customer Manager for the markets North Af-

rica, the Middle East and Southern Europe. He was at the conference in Casablanca. In his opinion Morocco is a country with major potential particularly because it has a young population and a growing middle class.

"This was an excellent conference with interested participants who provided positive feedback and asked many questions about how and for what wood can be used," he says.

Swedish exports of sawn wood products to Morocco amount to approximately 400,000 cubic metres annually and mainly comprise redwood. This corresponds to about half of Morocco's softwood imports, making Sweden a leading export country.



Wooden speedster

CRAFTSMANSHIP If you happen to be in Jämtland you should take the opportunity to visit Wikners in Persåsen. Here you can admire a BMW 325 that has been furnished and decorated with high-grade wood by wood craftsman David Wikner. Wikners is a family-owned company which, in addition to a hotel business, is engaged in the production of furniture and handicrafts made of wood.



New faces

Harald Nylinder has been Manager at Setra Skinnskatteberg since the end of September. He succeeded Hans Liljeström who took on the role of Manager at Setra Rolfs.



HARALD NYLINDER

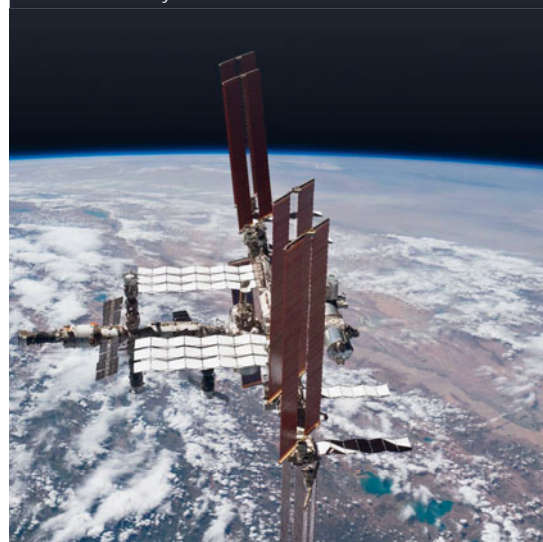
Michael Lindholm will take up the position of Purchasing Manager within Business Support this February. Michael's previous jobs included Purchasing Manager at Kemwell in Uppsala.



MICHAEL LINDHOLM

NASA maps the world's forests

KNOWLEDGE How much wood is there really in the world's forests? The US space agency NASA is finding out. The space giant has initiated a project where radar-based lasers will scan the world's forests. This will provide greater knowledge of how much biomass there really is. The equipment will be placed on the International Space Station (ISS) and the project is expected to be completed in about three years.



Setra Kastet

thinks productivity from the start

Setra's unit Kastet, just outside Gävle in central Sweden, represents a business with fine traditions to say the least. The 35 hectare area on which the sawmill stands includes several old buildings but as far as production is concerned, most things have changed. Using new concepts, operations at Kastet have been adapted to today's demands for efficiency and customised solutions. TEXT: KATARINA BRANDT PHOTO: OLA HÖGBERG



Setra Kastet redwood sawmill is just outside Gävle.

ALTHOUGH MOST sawmills have a long history there are few that can boast such a large-scale and industry-based background as Setra Kastet. When the forestry company Korsnäs came to Gävle at the end of the 19th century, a new sawmill community was built up along the coast. The sawmill became the largest in the world with 30 saw frames. The timber was floated to the mill down the Dal River from which a flume was built. Kastet has been part of Setra Group since 2002.

“The fact that we were part of an integrated sawmill and paper mill means in practice that everything here is on a generous scale and there has been no skimping with space or machines,” says Mill Manager Ove Sjögren.

Smooth-running operations

One example of production thinking on an industrial scale is the sawmill's rail tracks. Most things are transported on the rails which constitute a closed system at Setra Kastet. The advantages are many. Among other things timber packets can be built five metres high. Handling damage is reduced and the three tracked overhead cranes are more



Logs for Japan, which have been length adjusted by harvester operators, are re-sorted at the sawmill.

environmentally friendly than trucks. The tracked transport chain only needs to be broken when the timber is going to the dryers that are outside the system. Transport of stickers, which lie between the layers of planks and boards, is also carried out on a belt which is part of an automatic recycling system.

Today the sawmill still cooperates with BillerudKorsnäs paper mill which owns the Bomhus Energi CHP plant together with Gävle municipality and Gävle Energi. Some of the bark and dry chips that the plant converts into energy and steam come from Setra Kastet. This cooperation is facilitated by the fact that →

FROM
FOREST
TO
CUSTOMER



The sawlogs are specially cut to meet Japan's length requirements and the so-called Japan log is already sorted by the harvester operators in the forest.



In the sawmill the Japan log enters the process in the normal flow. Some is sawn at Setra Skinnskatteberg but Setra Kastet has the bigger volume.



In addition to less waste the gains are in actual transport where an optimised load in the containers is one of the advantages.



In Japan they mainly manufacture glulam beams from timber from Sweden. Getting the right length from the start means there is no need for finger jointing.

“The sooner we can do it right, the better”



The tracked transport chain has many advantages. Among other things the timber packets can be built higher than at other sawmills.

Setra Kastet

RAW MATERIAL: Pine

PRODUCTS: Sawn wood products

PRODUCTION VOLUME IN 2013:
220,000 m³

PRINCIPAL MARKETS: UK,
Japan, Sweden and Denmark.

NUMBER OF EMPLOYEES:
Approx. 70

UNIT ESTABLISHED: 1899, under
Setra's management since 2002.



Lengths for export to Japan are already cut in the forest and then placed in the normal flow.

Setra Kastet and Bomhus Energi are next door to each other. This means that the bioproducts are transported a short distance which is good for the environment.

“Every day four lorries with bark and one with dry chips drive from us to Bomhus Energi. Then we buy back steam from them,” says Ove.

The Bergslagen Concept adjusts production

Transport costs account for a significant share of total costs and Setra makes active efforts to reduce these. Together with the sawmills in Skinnskatteberg and Nyby, Kastet has its raw material base in central Sweden. The three sawmills have adjusted their production for either small-dimension or large-dimension sawlogs. This adjustment is called the Bergslagen Concept where Setra Kastet makes boards and planks from smaller logs which are already sorted in the forest. This specialised production line has made it possible to improve

production efficiency at each sawmill as well as reduce transport costs. With fewer sawlog grades to saw and longer series, productivity benefits.

“Since we belong to the same group, the Bergslagen Concept allows broad exposure to our customers,” says Ove Sjögren.

Logs for Japan are sorted in the forest

Setra Kastet is an export-focused sawmill. About 20% of production lands up in Japan.

“Japan handling, which we call this concept, is not new but has increased sharply over the past two years. It is about delivering a specific length directly to Japan. A small amount is sawn at Setra Skinnskatteberg, but it is Setra Kastet that has the biggest volumes,” says Johan Svensson who is a raw material coordinator for the redwood sawmills, of which Setra Kastet is one.

The harvester operators cut lengths that are suitable for export to Japan

MONTH-LONG SETRA VISIT FOR JAPANESE CUSTOMER

In the autumn Setra was visited by Teruo Kikuchi from the Japanese customer Kikumoku. An extensive introduction programme about Setra’s operations took Teruo on a journey to several units – including Kastet.

TERUO ARRIVED IN SWEDEN at the beginning of September. The introduction programme was designed to give him greater insight and understanding of the Swedish wood products industry in general and Setra in particular.

“Kikumoku asked us to arrange a programme for Teruo. He is the incoming CEO of the company so they wanted at this stage to give him an opportunity to build on his knowledge ahead of his future role. So we designed a month-long programme which would give him a good picture of our operations and how the processes work,” says Fredrik Löfgren, HR Manager at Setra.

During his month-long stay, Teruo visited most of the Setra units. He also had time to experience Swedish hunting and fishing.

“This programme gave Teruo and us at Setra an opportunity to exchange expe-

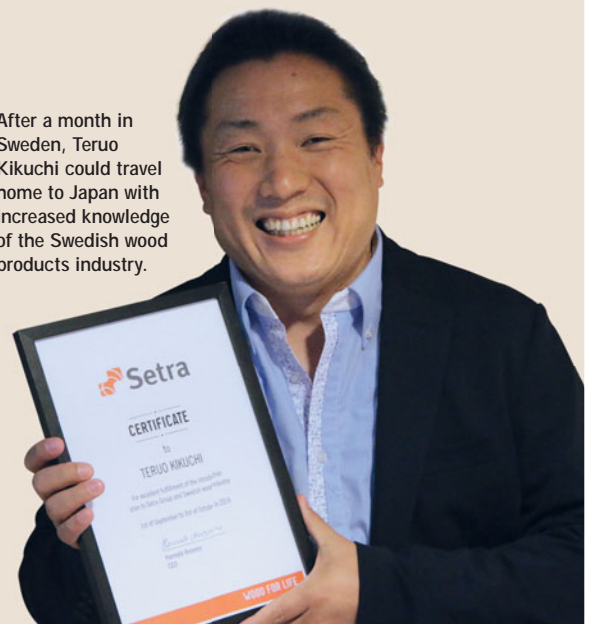
riences and get to know each other. This will benefit our cooperation in the future,” says Fredrik Löfgren.

Kikumoku, which has 55 employees, has been a Setra customer for many years. Wood products from Setra correspond to about 45% of Kikumoku’s total imports. Among other things they buy laminates from Malå, Kastet and Skinnskatteberg as well as redwood glulam from Långshyttan.

Teruo feels pleased and grateful for his long stay in Sweden.

“I really did acquire more in-depth knowledge of Setra and was very well received by everyone. I learnt a lot about production and making work processes more efficient. The visit also gave me an insight into Sweden as a country. Sweden is very advanced when it comes to matters such as working environment and welfare programmes,” he says.

After a month in Sweden, Teruo Kikuchi could travel home to Japan with increased knowledge of the Swedish wood products industry.



“In Kastet there is every opportunity to develop the business even more”

and then place these in the normal flow. They are then re-sorted at the sawmills. The advantages are many. In addition to less waste, since the lengths are already correct from the forest, there are also gains in the actual transport.

“It is very much about optimising the load in the containers bound for Japan. Also it is an advantage to the purchasing customer to know which lengths they will get,” says Johan.

One of the very best trimmers in Sweden

Setra Kastet has two camera sorting units where a first control of the timber is carried out during raw material sorting. Capacity is high and the sawmill

counts its trimmer among one of the very best in Sweden.

“The sooner we can do it right, the better,” says Ove, who feels that the set-up with a first control is more cost effective.

At Setra Kastet people are positive about the future and keen to emphasise the sawmill’s many development opportunities. The infrastructure is unusually good with the port, railway and a main road just round the corner and the area is large with some unutilised premises.

“Some kind of expansion is an attractive idea. Naturally we want to grow and here in Kastet there is every opportunity to develop the business even more,” Ove concludes. ■



Three tracked overhead cranes handle most of the internal transports.



Sven-Erik Eriksson is production planner and works among other things with deliveries to Japan.



Bomhus Energi is an ultra-modern CHP plant which is supplied with fuel from its immediate neighbour Setra Kastet, among others.



Timber from Kastet makes doorframes in Estonia

APPROXIMATELY 70% of Setra Kastet’s production goes for export. Japan is a big market but major customers also include glulam and furniture manufacturers in Denmark, Estonia, Poland and the UK. JELD-WEN is one of the world’s leading manufacturers of windows and doors. The product range includes windows, exterior doors, interior doors and related building products which are sold globally through several distribution channels.

The company has 12 production facilities in Europe. The unit in Estonia buys timber from Setra Kastet which is mainly used to manufacture doorframes.

“We have cooperated with Setra Kastet for about five years and buy comparatively large volumes from them. Setra meets our expectations at every level and we are very pleased with both products and delivery reliability. Setra is a customer-oriented company and at Kastet they are skilled at developing their product range and producing special dimensions to meet our requirements,” says Niels R. Storgaard who is Category Manager Softwood & Hardwood at JELD-WEN.



SETRA PLUSSHUS

Building for the future

Cost-effective, flexible and customer-optimised. Market demands are clear. The new standard house concept from Setra Plusshus will now meet the need for smart and quick-to-build quality dwellings.

TEXT: JOAKIM GERHARDSSON PHOTO: OLA HÖGBERG ILLUSTRATIONS: MEDIACAD

IMAGINE YOU ARE building a housing estate with building blocks. Which you can flexibly adjust to your requirements and where the same floor plan can be a detached, terraced or link-detached house.

“In short, it’s simply about a lot of home for the money,” says Hans Åkesson, Marketing Manager at Setra Plusshus, and continues to explain the concept itself:

“We have developed standard house and apartment types which meet the market’s demands and expectations. The first phase comprises ready-planned single-family homes which can be adapted as terraced, link-detached or detached houses. They are marketable and already optimised in the factory which makes the building process simpler and more efficient as well as significantly shortening the lead time from order to occupancy.”

The process can be compared to building with toy building blocks. The modules are assembled in different ways depending on the type of house and requirements. The kitchen and bathroom installations look the same but vary in size.

Considerable demand

The project to design a standard house concept started about eighteen months ago. But the idea was born several years earlier.

“While trying to produce good examples, we designed some model houses. There was no plan to build them at the time, but after a while we wondered if in fact someone might be keen to buy these hypothetical houses. Today, when we have a clear concept, the question is different. Now we wonder how many we are actually going to sell,” says Hans.

Because there is considerable demand. About 70% of the Plusshus projects which are in their early stages are based on the standard house concept adapted for housing developments.

“Our target group for standard houses is customers who want to make the process of developing a new area simpler and more efficient,” explains Hans and continues:

“Now we have a solid concept where the ground work is complete. Where the products are designed and priced. And where Jessica Becker, our own architect, can help with shaping and honing it further as needed.”

Jessica has been the managing architect for the standard house concept. She joined in spring 2014 and quickly became deeply involved in the entire project.

“I have mainly been involved in designing the house types, the concept, but I have also worked on the marketing material prior to the launch. Recently, I have also been meeting customers,” says Jessica. She too has noted the demand.



“As well as the obvious cost-cutting aspect, I think the customer appreciates being able to get a very quick response. One positive thing about these standard houses is that they are already priced. We can say to the customer ‘this is fifteen units and that gives roughly this price’. After a day, instead of the weeks they often have to wait for an offer.”

Jessica describes an exciting time. From joining just under a year ago to now meeting customers who have chosen the standard house concept.

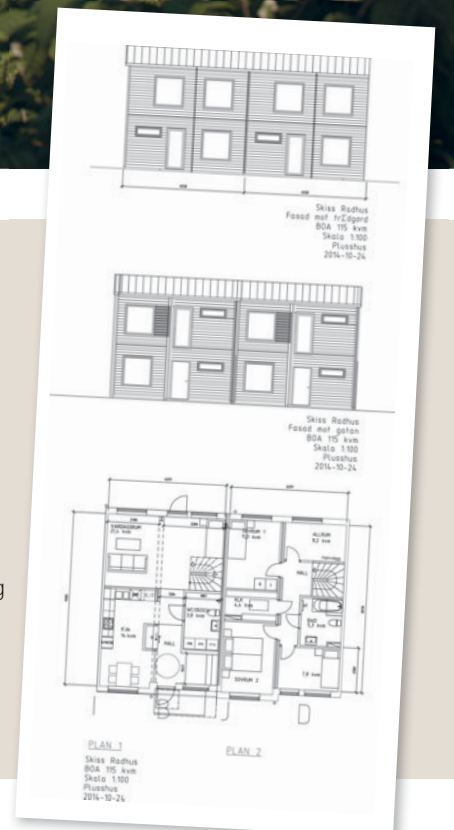
“It feels unbelievably good to be part of this process. Because it feels right in every way! From day one I have honed and twisted the concept to make it as good as possible from a production angle →



Jessica Becker is the managing architect for the standard house concept. "It feels unbelievably good to be part of this process", she says.

Variable and adaptable

The standard house concept for single-family homes has a variety of formats which can be adapted to terraced, linked-detached or detached houses. They are just assembled differently. Sizes are from 120 sq.m. and upwards. But even though development of the product range is complete, there is room to make every building project unique. This is done by combining the various components differently and choosing appearance options such as trellises, ribs and facades as well as classic, functional or modern styles.





3D illustration of a possible terraced house solution using the new standard house concept.

to cut time and costs. The challenges were to achieve a product that is flexible and what the market wants. And which at the same time is resource efficient. It's fantastically exciting that we have actually succeeded!"

First up were single-family homes and the first one based on the standard house concept is expected to be occupied some time during 2015. The next step is to develop the standard house concept for apartment blocks. And there are also discussions about hotels, student residences and densification projects.

"The idea is the same. For apartment blocks we will design apartments in a number of sizes which we put together in the same way on the building block principle. Installation will look the same. It will still be production-friendly where the effect of repetition is to cut costs. To offer an extremely good product for less money," says Jessica Becker.

Hans Åkesson completes the picture:

"We will twist and hone this concept. It's alive. We will add products and models and not lock ourselves into a single house design. The range will be extended as we go along which will give us even more to choose from. But the trick is to offer diversity with a few building blocks."

It is clear that there is considerable interest from potential customers. To build homes that still can be adapted to an area's conditions and contexts in a time-efficient and easy way. To do something unique using something that works quickly and only costs a little.

"The market has really asked for this. We will be extremely effective in helping our customer and then we will also be efficient in our factories. Doing this is an investment in our own future," concludes Hans Åkesson. ■



Hans Åkesson, Marketing Manager at Setra Plusshus, can testify to a considerable interest in the new standard house concept.



MORE ABOUT SETRA PLUSSHUS

Flexible townhouses in Hässelby

IN NOVEMBER nine families moved into terraced houses in Blodboksgränd, in the Stockholm suburb of Hässelby, built by Nordiska Kvalitetshus in cooperation with Setra Plusshus. The houses are in three blocks with three houses in each. They have a townhouse character with a living space of 142 sq.m. on two floors with a furnishable attic.

“We have worked very closely with Nordiska Kvalitetshus and come up with a house design that well meets their requirements. Today’s high land prices mean that you must build upwards. In addition, the furnishable attic gives the occupants greater flexibility,” explains Jan Cederlöf, Sales Representative at Plusshus,

Nordiska Kvalitetshus views the

area as a reference project ahead of future land use competitions and has put a lot of care into the details. The houses have carports and a storage room with a sedum roof, specially designed mailboxes and a harmonised colour scheme.

“We like the high level of prefabrication with Plusshus which reduces on-site building times. They take great responsibility for their deliveries and have a strong owner backing them up. This feels secure, for us as well as for our customers, estate agents, bankers and financiers,” says Olle Larsson, part-owner of Nordiska Kvalitetshus.

Setra Plusshus hopes there will be more projects together with Nordiska Kvalitetshus.



Setra

PLUSSHUS =
SUMMAN
AV TRÄ,
VISIONER
OCH KVALITET

Plusshus

WOOD FOR LIFE

In conjunction with the launch of the standard house concept marketing material in the form of folders and brochures has been prepared.

It is the outside that

In pace with the increased use of wood, Setra is becoming involved in creating an even broader market for wooden facades. Interest is now growing for both industrially painted outdoor cladding and Setra's new, wide glulam cladding which was launched last year.

TEXT: KATARINA BRANDT PHOTO: SETRA



The trend is towards wider boards and the new glulam cladding is increasingly in demand for ordinary houses. The house in the picture has primed glulam cladding from Setra.

THE CLASSIC BOARD and batten facade with a bottom board covered by a batten is still the most popular in Sweden. But more people are choosing to show off and experimenting with different facade styles. As well as the traditional range of outdoor cladding boards, Setra offers a number of different cladding profiles. The entire range is made from selected spruce raw material and is available untreated, with primer or topcoat in four different variants.

“We have noticed that more and more retailers are choosing to stock the primed cladding. This obviously increases interest and when primed is available from stock there is no reason not to choose it. This is a superb product which has become much appreciated. Not just because it saves time, but because it provides a different freedom. Suddenly you are not restricted to the warm seasons but can put up cladding

“Suddenly you are not restricted to the warm seasons but can put up cladding all the year round”

all the year round,” explains Urban André, Product Manager in Setra's business area Building Products & Systems.

Wide is the trend

Last year Setra launched a new, wide and dimensionally-stable glulam cladding which has quickly become popular thanks to short assembly times, simple maintenance and the possibility to design buildings with a unique style.

“Glulam cladding has developed extremely well. New this year is that we will not only offer untreated and primed but also with an intermediate coat.”

Glulam cladding was originally

envisaged for larger facades and public buildings but is increasingly in demand for ordinary houses. Urban thinks that the trend is towards ever wider boards. So there are thoughts about introduc-

Urban André is Product Manager in Setra's business area Building Products & Systems.



counts!

ing a 28 mm thick exterior cladding to complement the traditional range which is 22 mm thick.

Wooden facades are often a cheaper investment than other facade material. But maintenance costs can over time be greater. Setra participates in a number of industry-wide projects aimed at improving the material's reputation when it comes to maintenance,

"The industry is working among other things to establish quality assured requirements for the painting systems in use today. The idea is that this should work in a similar way to the industry standard developed by the Nordic Wood Preserving Council for pressure-treated wood. The cooperation is between those of us who manufacture facade cladding, but paint manufacturers are also involved.

Setra's own painting process has been controlled and quality assured from the outset in 2010. In the state-of-the-art facility in Skutskär the latest technology for paint application is used. The paint is sprayed onto and brushed into the board for optimal results. The facility has a drying capacity which supports 60 µm thick coats, as recommended by the paint industry. Further, primer and intermediate coats are always applied to a newly sawn or newly painted surface to ensure the best possible durability for the product. ■

5 advantages with a wooden facade

- 1 It is better value for money than other facade materials
- 2 It is easy to put up
- 3 It is easy to put up surface-mounted details such as lamps without damaging the facade and risking damp getting in
- 4 It is easy to change the appearance of the house by repainting the facade
- 5 When necessary, it is easy to replace individual parts of the facade

AN ARCHITECT'S VIEW OF WOODEN FACADES

OVE NILSSON IS an architect and head of Consultec Architects in Skellefteå. The company has a distinctly wood-oriented profile focused on modern wooden construction. They cooperate with SP Wood Technology, education and research into wood at Luleå University of Technology, as well as several wood products companies. Ove is involved in many building projects with modern wood technology as a common denominator and in recent years has seen an increased demand for wooden facades.

Three years ago Ove completed his licentiate thesis at Luleå University of Technology on wooden facades in which he studied the architect's view of wood as a facade material. Architects often have a central role in the choice of facade material in a building project and it is not uncommon that the architect looks for new expressions and possibilities in technology and material.

How do wooden facades fit into modern wood construction?

The concept of wooden cladding is an ingenious invention. You can make such an incredibly large number of combinations. Properly assembled and with the correct treatment it will last for centuries. Wood is a competitive quality material even for the facades of larger buildings. The possibility of prefabrication with industrial-scale building is also one of the great advantages of wood. But it is important to get us architects on board at an early stage. We are knowledgeable and interested in product development.

And what are the limitations?

It's mostly about maintenance. Development needs to get onto this and make improvements. If wooden facades are to compete on higher buildings, we need to pay far more attention to surface treatment and maintenance issues. Pre-painted cladding is definitely a step in the right direction. Perhaps prefabricated facade units could be developed which would be easy to take down for maintenance. We also need to increase knowledge of wood as a material and how to build wooden facades. For example the fact that wood is a living material which means that moisture and the movement of the wood must be taken into account.



Photo: Patrick Degerman

Ove Nilsson is an architect with Consultec Architects in Skellefteå in the north of Sweden.

What trends do you see for wooden facades?

The current trend is that wood should look like wood and not pretend to be anything else. If we construct a building with a wooden frame, many people also want the facade to signal wood. I think this is part of a general trend towards more eco-friendly and genuine goods. Wood fits the bill perfectly.

ADVICE TO THE WOOD PRODUCTS INDUSTRY TO INCREASE THE MARKET FOR WOODEN FACADES

- Combine wood and other materials such as steel, concrete and glass
- Use the natural potential of wood
- Develop treatment methods with a "wood feel"
- Develop wooden panels and sheets with more value-added
- Develop new wooden facade products and systems
- Use the potential for prefabrication and the possibility to build wooden facades on a larger scale
- Increase the level of knowledge of architects, developers and others in the construction sector
- Develop more methodical utilisation of ongoing research and development in wood
- Develop closer cooperation between architects, developers, researchers and production industry



Learn more about

WOODEN FACADES

In this issue of SetraNews we are launching the section “Setra’s Wood School”. The idea is to highlight different aspects of wood and wood construction and hopefully provide some new knowledge about the material and how it can be used. The first lesson is about wooden facades and why it is that wood has been Sweden’s most popular facade material for as long as anyone can remember. TEXT: KATARINA BRANDT

WOOD IS A traditional facade material which is easy to work with and repair if damage occurs. It is just as easy to prefabricate and paint in a factory as to paint on site. The purpose of a building’s exterior cladding is to protect the insulation and frame from rain and to a certain extent wind as well as giving the building a personal and attractive appearance.

HISTORY

In the log houses of olden times, damp and wind were a recurring problem. To make the houses more damp- and wind-proof, the exposed corners were clad with boards. The first upright panels were made from unedged boards of different widths which were attached directly to the logs.

Towards the end of the nineteenth century sawmills were mechanised and woodworking factories grew up. It was then easier to build with planks and boards and the log walls were clad with standard sawn timber. The local building tradition which developed from the end of the nineteenth century opened up for a wealth of variations in claddings.

MATERIAL

Cladding boards for exterior use are made from split spruce heartwood. Spruce absorbs water more slowly than pine and thus gives a more durable facade. So that the exposed face is free from cracks, the boards are cut using dry-splitting, i.e. the wood is split after it has been dried. This is done in a band saw or circular saw at the same time as the profile is planed.

Boards for exterior cladding are manufactured in many different ver-

sions. Most facade boards have an visible flat surface which is sawn or grooved so that paint and surface treatment will bond well. In addition different types of cladding boards are produced, some with a lip others with tongue-and-groove. They can be mounted upright, horizontally or even diagonally.

QUALITY

The quality of timber is determined by a number of parameters which are specified in the description for sorting board timber. For example it must be free from rot, blue stain, cracks, loose knots and holes as well as not having too much bowing and warping. The timber should have a moisture content of about 16% at the time of painting and the surface must not be exposed to rain, sunlight or dirt before painting.

DIRECTION

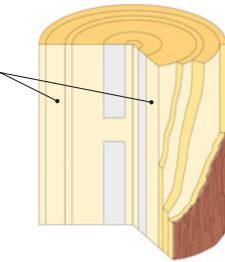
Previously the direction in which the boards were mounted was of great significance for durability. In older buildings from 1880–1920 a combination of upright and horizontal panels was often used. It was simply easier to replace lengths of board in sections of the wall that were particularly exposed, such as beneath windows.

An upright cladding is often easier to put up and the vertical planks can give an illusion of extra height to the house. Rainwater runs quickly off of upright boards. The disadvantage is that the end grain is exposed to moisture.

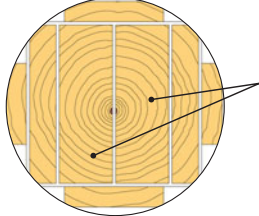
Horizontal cladding is suitable in areas where there is often driving rain, such as along the Swedish west coast. It protects against weather and wind, but

GLOSSARY

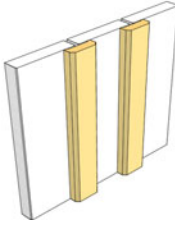
Sapwood
The outer layer of wood in the growing tree which is made of cells that transport sap.




Heartwood
Sawn timber that is taken from the centre of the log.




Cover batten
Normally used to cover the lengthwise seam when the facade is clad with upright boards.




Lip
Right-angled cut on one edge.



Groove
Lengthwise channel (track) in one edge of tongue-and-groove planed timber intended to be joined with a tongue (spring).



Tongue-and-groove timber
Timber with a tongue on one edge and a groove on the other for joining planks together.



Source: Swedish Wood, “Att välja trä”.
You will find more information at www.swedishwood.com

water does not run off as easily as with upright cladding.

Nowadays the technical construction of ventilation and water drainage is better which gives the cladding a long life span regardless of direction. This makes the choice of surface treatment more important since it is of great significance for the durability of the facade. ■

➤ Read more about Setra Exterior cladding on our website: www.setragroup.com.

School of the future with wood tradition

Skarpåkers School in Kramfors has taken to heart the area's rich wood-related history. In the newly-built school, 800 sq.m. of Setra solid wood flooring has been used to keep this tradition alive. TEXT: JOAKIM GERHARDSSON PHOTO: THULIN MEDIA



The school's 250 pupils leave their shoes at the entrance which reduces wear and tear and lowers noise levels.

WHEN TENGBOM ARCHITECTS were assigned to design Skarpåkers School the future was united with a look at the past. The wood products industry has played a historically key role for Kramfors municipality in the northern Swedish county of Västernorrland. So when building the new school the choice of the principal material was easy.

"Children growing up in Kramfors today do not have that connection to wood anymore, so we thought it was important to capture the local ties," says Max Lönnqvist, managing architect.

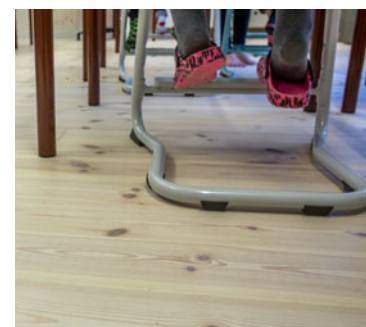
The entire school breathes wood. A total of 25,000 running metres of timber have been used for the frames. In the classrooms 800 sq.m. of Setra solid wood flooring with white hardwax oil helps give the premises the right feel.

"When you enter the classrooms you are welcomed by a warm feeling with a

lovely fragrance. You want to go in and touch the floor, it is so inviting. Setra's floor was a total solution that worked extremely well. We wanted a rugged floor which did not need to be waxed after it was laid," says Max Lönnqvist, who has a fondness for wood as a material.

"I try to use wood as much as possible in my projects. It is environmentally aware, malleable, warm and alive. We are brought up with wood. From an ice lolly stick to a tree house. So it feels perfectly natural to work with it as a material," he says.

Skarpåkers School is "shoe-free", that is anybody visiting the premises takes off their shoes in the entrance hall. The school, which was opened in the autumn, runs from pre-school to third grade with a total of about 240 students. The developer is Krambo while Peab was the general contractor. ■



800 sq.m. of Setra solid wood flooring gives the classrooms at Skarpåkers School the right feel.

Architect Max Lönnqvist has taken Kramfors' rich wood-related history to heart.



Photo: Pressbild



Charlotte Thedéen
Title: Environmental
Manager at Setra
Age: 49
Lives: Spånga
Family: Husband, two
children and a dog
Interests: Skiing, yoga, hiking
in the mountains and sailing

It is about accepting responsibility

TEXT: JOAKIM GERHARDSSON PHOTO: OLA HÖGBERG

SUSTAINABILITY ISSUES are more topical than ever. Right now Setra is working with its first sustainability report which will be published together with the annual report. Setra's Environmental Manager, Charlotte Thedéen, is sitting where the action is.

"I believe it's really important to make sustainability thinking part of all the company's processes. You only need to look at where the world is heading. Setra is a big company so we must accept responsibility and behave in a decent manner," says Charlotte, who sees major advantages with the upcoming report.

"It will be a commitment. We will show how we work. This is valuable at several levels. Defining our key sustainability issues and thinking about areas in which we can improve.

Charlotte, whose previous employment included Environmental Controller at Fortum and Environmental Manager

at Stockholm Gas, joined Setra in April 2013.

"I applied to come here because I was interested in the industry and felt that the actual products were very good. Also, I like to work with many aspects within environment, working environment and safety, which I have an opportunity to do here."

She describes her time with Setra thus far as highly positive and welcoming.

"A personal and cosy company with good products and good people. Every time I am out visiting one of our units I feel really well looked after and treated."

Charlotte talks enthusiastically about wood as a "superproduct".

"We have a fantastic customer offering with a product which is renewable and binds carbon dioxide."

In the future, Charlotte sees major opportunities when it comes to sustainability issues. The potential is considerable.

"I definitely believe there is a willingness to work with sustainability issues. And there is a lot to be done. I think we should work with clearer sustainability targets and do much more work in dialogue with our customers. That we should clarify, simplify and communicate what sustainability is really about for Setra as well as how good our products are."

Health and safety issues are also a subject that Charlotte is passionate about.

"We operate in an accident-prone industry. Reducing the number of accidents requires training and changed behaviour. Right now we are working, among other things, with a new safety training programme for our employees and subcontractors. This is what is interesting. The fact that sustainability includes so very much, it is so broad and is not confined to what we instinctively interpret from the word "environment".

SETRA is one of Sweden's largest wood products companies and a leading player in Europe. We offer eco-certified wood products for interiors and construction to customers in the building materials trade and industry.

Sawn and planed wood products in redwood and whitewood account for most of sales. The assortment for the building materials trade includes products such as floors, glulams, exterior claddings, interior claddings and decking.

Setra has 900 employees and annual sales of approximately SEK 4.1 billion. Exports to Europe, North Africa, the Middle East and Asia account for almost 60% of sales.

Setra Group includes nine sawmills, three wood processing units and two modular building factories.

Setra's principal owners are Sveaskog (50.0%) and Mellanskog (49.5%). The other approximately 1,500 shareholders together own 0.5% of the shares in the company.