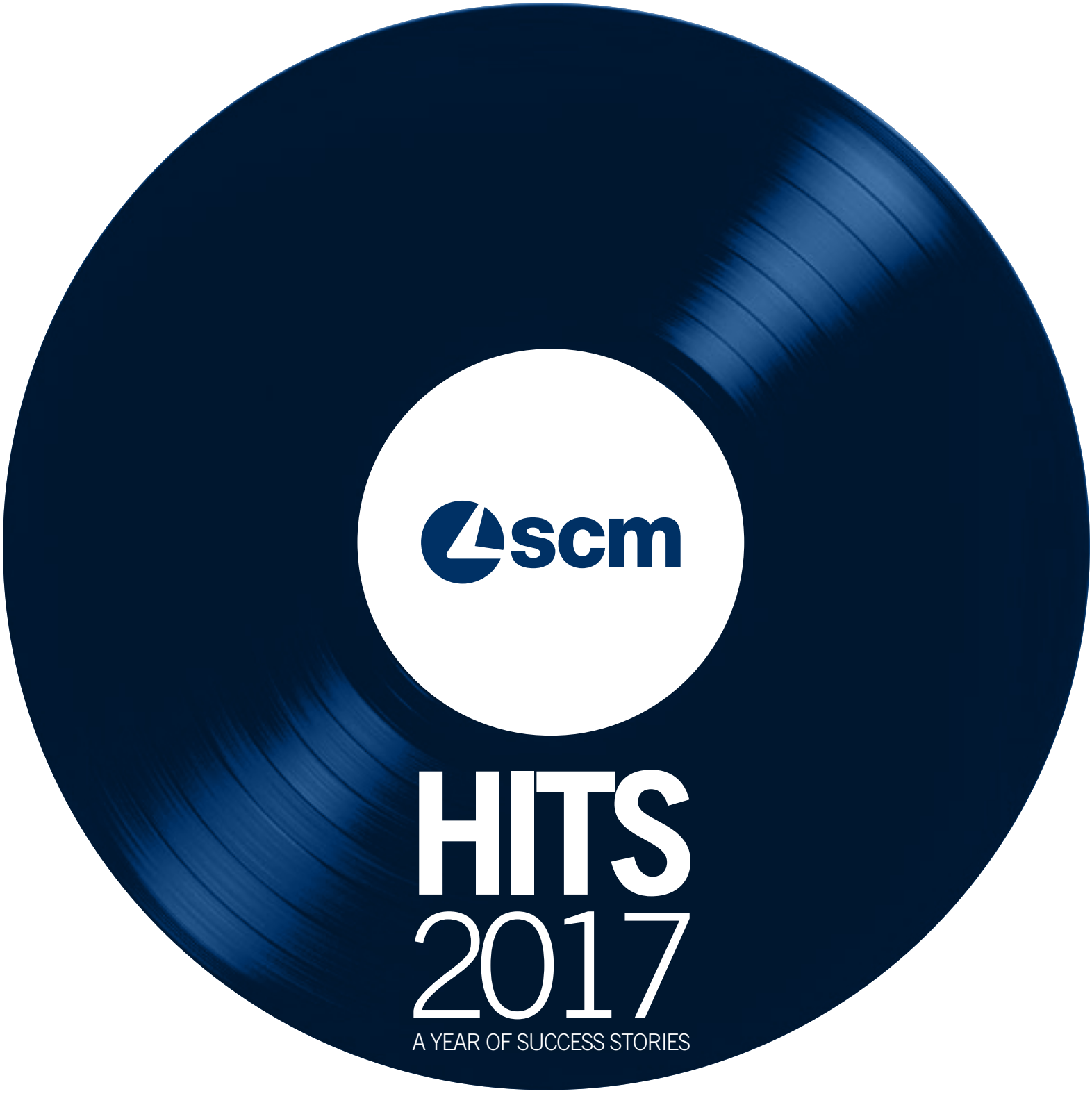
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2017
A YEAR OF SUCCESS STORIES

scm is more
woodworking technology

TECHNOLOGICAL DEVELOPMENT IS THE STORY OF OUR COMPANY

SCM dedicates this issue of its magazine to technological development, as told and experimented by a number of companies which rely on machines and production systems that can satisfy their new needs and quickly respond to signs of change.

As a producer of advanced technology solutions, SCM focuses intently on the entire subject of Technological Development. We use this term to describe the commitment and positive energy invested in improving the entire production system. What are the *new* needs we hear about from those who work with wood these days? What other materials are being introduced into the furniture and housing industries? What does investing in Industry 4.0 solutions mean? And what scenarios in production methods and logic can already be expected to take effect in the near future? Questions and answers that are addressed here with a chorus of different voices, varied stories that are narrated by a number of companies in this issue.

Stories by companies that have crossed, during their development, diverse economic phases, operate in various industries, speak different languages – yet all tell **stories that share a single powerful common denominator: a decision to invest in Technology. Technology that produces value, that helps you get ahead, that opens new avenues, that helps your company develop and Evolve.**

The SCM Magazine opens with a cover story that needs no introduction and offers a clear idea of the extraordinary potential of machining centres: the German company Hasenkopf produced acoustic panels for the Elbphilharmonie Concert Hall in Hamburg using Routech machining centres.

It is followed by plenty of stories that describe how wood is processed and transformed in the world today – from the contract won by the Chinese mega-factory Zhong Zhi Xi to leading Italian furniture manufacturers such as Natuzzi, Sandi Mobili, Fratelli Minotti and ATL Group; from the two Austrian giants, Internorm and Binderholz, true global leaders in the housing as well as door and window frames industries, to Russian companies operating in the furniture industry, such as Mirlachova and Shatura.
And then we turn to Mobeltre AS and the themes that are favoured by the Scandinavian furniture market, which go very well together with the innovative production vision of the Spanish company Garnica. From France we bring reports on the culture of excellence and detail, as shown by the Joubert panels, the window-frame producer MC France, and the MDP experience in the auto industry. The U.K. Shepley company confirms its reputation as the keeper of the British style with its doors and windows; while from the U.S. we offer a powerful example of the use of high technology in finishing lines at Superfici America.
The full potential of the use of wood for construction is demonstrated by two examples: the great German company Lignotrend, which uses an SCM integrated line, and the Trento company FAL, which chose to use the 6-axis interpolation technology to avoid having to face any possible limitations when machining workpieces.
We dive into the marine industry with the Italian company Sforzi Teak which provides the finest wooden floors for high-end yachts.

But the stories are not limited to wood alone. They also cover winning new and eco-friendly materials used by such companies as the Italian CMF Greentech, which produces hemp panels using smart automation systems. And then there's the Swedish company Dometic Seitz which offers vehicle accessories for an improved mobile living.

Among the many examples covered in this issue we find also companies that seek to add beauty to their new technology products, such as the South Tyrolean company that produces wooden eyeglasses with sophisticated design; or the three companies Wiehl, Brunner and Pahl, located in the heart of Germany and design and manufacture their products thanks to the great capabilities of the classic SCM machines, which successfully combine technology with artistry.
We conclude with CIAM, a company set in an environment of great natural and spiritual beauty (Assisi, Umbria), which uses the new Flexstore automated storage system to produce refrigerated counters and furnishings for the food-serving industry, paying close attention to details in order to bring out the sense of harmony and splendour in each product.
Enjoy your reading.

INDEX

A HOMAGE TO INTELLIGENCE AND ABILITY

Grandiose results are achieved when experts in their respective fields work together. In this case it's the so called "white skin", an interior panelling with unique characteristics used in the concert hall of the new Elbphilharmonie in Hamburg. It was created by the Hasenkopf industrial factory of Mehring with three SCM Routech "Chronos HT" CNC machining centres with five axis.

The interior panelling was developed starting from GIFAtec®, a material produced by Knauf Integral, which was specially modified for this project. It is an extremely solid and non-flammable material with a high level of white. In total 10,287 parts form the white skin that covers about 6.000 m². To create the three dimensional surfaces Hasenkopf, commissioned by the specialist in renovations Peukert GmbH, had to first of all carry out costly 3D calculations and then convert the CAD data in AV, in programs suitable for the CNC. Subsequently macros were created to machine both sides of the glued plaster fibre panels. The routing depth of the surface structure, consisting of almost 1,000,000 irregular cavities, ranged from 5 mm to 90 mm. 30,520 CNC programs with 352,000,000 characters were needed for the almost 1.5 million linear metres of routing. Over 1000 diamond cutters were used in 5000 sharpening cycles. Another particularly demanding aspect was the extremely high density of the concrete reinforced with plaster fibre, with a maximum thickness of the panels being machined of 180 mm ("Chronos" is able to machine pieces with a height up to 800 mm).

Hasenkopf purchased three Routech "Chronos HT" CNC machining centres especially for this project. The five controlled axes were a determining factor in this choice. As well as the extreme stability of the gantry type structure and the wide work areas enclosed in a limited space. Without forgetting the excellent accessibility, which was particularly useful during loading. This allowed for a maximised feed speed with minimum tolerances: an essential requirement for the aforementioned effectiveness of this extraordinary interior panelling. The individual work phases were documented and controlled with utmost precision by Hasenkopf, in order to produce specific quality reports. There were less than 20 individual faulty parts, in a machining process that included over 10,000 complex parts with different surface structures!

In order to tell the whole story though we must also mention the Swiss architects Herzog & de Meuron and the Japanese acoustician Yasuhisa Toyota, who thanks to the interaction of solid geometry, materials and surface structure, were able to ensure excellent sound in every corner of the hall.

Text by (©Rudolf Bartl)
From the article published on HK-Magazin 03/2017
Photos by SCM/ Hasenkopf/ Christian Hohn

30,520 CNC programs had to be written for the almost 1.5 million metres of routing in order to machine both sides. The routing depth of the irregular cavities ranged from 5 mm to 90 mm.

Partial view of the interior panelling in the concert hall

Three Routech "Chronos HT" CNC machining centres with five axis by SCM Group worked for 2550 days, with two shifts

HASENKOPF (GERMANY)

The Elbe Philharmonic Hall has a dominant position on the port of Hamburg

ZHONG ZHI XIN (CHINA)
SHATURA (RUSSIA)
FABBRICA MIRLACHOVA (RUSSIA)
MØBELTRE AS (NORWAY)
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SANDI MOBILI (ITALY)
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GARNICA (SPAIN)
SUPERFICI FINISHING LINE (USA)

01

FURNITURE

ZHONG ZHI XIN A NEW PLANT OF THE COMPANY IS INAUGURATED IN CHINA

THE FIRST STEP IN A GREAT 4.6-MILLION EURO PROJECT

at the center Mr.Chen Hua Shui, ZZX co-owner, on the right Gianni Casadei, Scm Group China General Manager, on the left Marco Rampichini Scm Group APAC Region Manager

This confirms the SCM leadership position in the Chinese market, where in 2016 it has achieved a 20% growth compared to 2015.

The **new Zhong Zhi Xin plant** was inaugurated in late October in Luo'An, Province of Anhui, China. Zhong Zhi Xin is an important Chinese furniture manufacturer, for which **SCM** has provided project consulting, and all technologies for woodworking, all part of a great project **with a total value of 4.6 million euro.**

Zhong Zhi Xin is a leading company in the Chinese market. It specialises in "European Style" furniture production, known for its major use of materials such as solid wood and veneers. Founded in the 1990s, the company produces living-room and bedroom furniture, as well as sofa beds, exclusively for the domestic market, and distributed through a network of 800 authorised dealers. It currently employs some 3,000 workers and in 2015 earned total revenues of around 68 million euro (about 512 million RMB). In 2015, as part of a major modernisation project strongly backed by the local government, **Zhong Zhi Xin** acquired a plot of land of more than 1 million square meters within an industrial park in Luo'An, in the Anhui Province. The project involves the construction of a complete production line dedicated to manufacturing "typical" solid-wood furniture and, at the same time, a diversification line dedicated to producing a range of panel-based furniture. The new plant is only the first step in a high-investment project which includes a second step by the end of 2017 with additional machinery for processing panel-based furniture.

The involvement of SCM began with the development of an important technical consulting project, a service offered by our Engineering Division. It did focus on diversifying the product range, including panel-based furniture, and on modernising the machinery used for the traditional solid-wood products. This was followed by SCM providing all the production equipment for the new Zhong Zhi Xin plant: 14 machines for panel processing, 10 for solid-wood processing and 3 painting lines. Production lines that will help the company increase its production output and improve and stabilise the quality of its finished furniture products.

Zhong Zhin Xin new factory inauguration ceremony in Lo'an, Anhui province, October 2016

FURNITURE

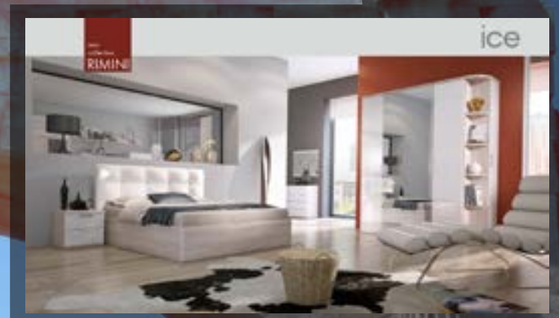
ZHONG ZHI XIN (CHINA)

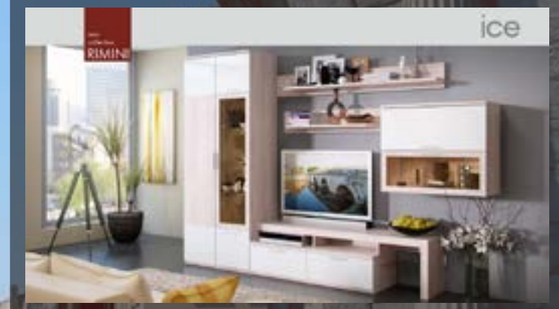
These important commercial ties confirm **SCM Group's leadership position in the Chinese market**, where it has been operating since 2004 through its Chinese **headquarters, logistic and production centre** located in Shenzhen and employing 65 workers. Thanks to its extensive know-how and wide range of solutions, the Group can provide technological answers to machining wood and other materials not only for both large industrial corporations, but small and medium-sized companies as well. Technologically advanced solutions that represent industrial Made-in-Italy excellence. In addition to our Shenzhen offices and plant, SCM has showrooms and sales offices in Shunde, near Guangzhou, and Beijing, which help cover the entire territory of this vast country.

"SCM represents Italian excellence for the Chinese market; we are recognised throughout the country as a company that offers topof the range yet highly competitive technologies," says Marco Rampichini, SCM Group Regional Manager APAC. "An established position thanks also to the extraordinary success we have achieved in 2016, with a 20% growth compared to 2015. We are the leading suppliers of CNC machining centres, edgebanders, in particular with Stefani productsfor which China is the main export market -- as well as door and window production machinery. Our extensive know-how and range of solutions, accompanied by our proven reliability, make us the perfect industrial partner when it comes to building highly-productive and flexible integrated lines, ideal for fulfilling the needs of the Chinese market in light of the rising cost of labour."

SHATURA: A LONG HISTORY, A BRIGHT FUTURE

The company, set up in 1961, is currently the leader of the Russian furniture market. Since the nineties it had developed a strong partnership with SCM, that was further strengthened in 2013 with the installation of the important Splitter edgebanding line for panels. The strong relationship with the city of Rimini led to a successful co-marketing project in 2017.





SHATURA (RUSSIA)

The Shatura brand has been a constant in the history of the Soviet Union and then of Russia. A long history that began in 1961, when the first batch of wardrobes was produced in a department of the company which gone through all the recent, dramatic and exciting phases of this great country.
Shatura has known Soviet-type planned economy and the emerging capitalism of the nineties. Now the company, structured as a joint stock company, is the leader of the Russian furniture market and one of the largest company in the country.
It produces lounges, bedrooms, children's bedrooms, living rooms, kitchens, bathrooms and office furniture, for homes, offices and hotels. Moreover the Shatura brand is also used for mattresses, tables, chairs and sofas.

Since 2004 Shatura also produces unfinished and laminated chipboard in its own plant. The production covers all the company's needs and it also sells this product, produced with an exclusive technology, to other customers. In 2003 Shatura, which takes its name from the city in the Moscow region that is home to the group's numerous plants, grew in size by taking over EMK in Balakovo, in the Saratov region. The main distribution channel consists of an impressive network of 500 franchising shops across the Russian Federation and nearby countries, that emerged after the collapse of the Soviet Union.

Shatura is therefore a sizable company that naturally makes use of the best technology available. This is what led to the beginning of its very strong relationship with SCM in the nineties. The company has many of the group's machines. This partnership was further strengthened in 2013 with the installation of the Splitter edgebanding line to produce narrow squared and edgebanded panels.
This decision was taken after a thorough preparative stage. SCM machines were selected only after the Russian technicians had examined and tested the products of the leading manufacturers of woodworking machines. This partnership is destined to last into the future seeing as, in all the phases that followed this decision, the relationship between SCM and Shatura's technicians has been optimal, with great results for both sides.
The Splitter line is a top of the range solution, designed for the highest production standards, with extraordinary performance levels that allow for the production of up to 60 completely edgebanded and drilled panels per minute. The guaranteed average is of 40 panels per minute in outfeed. All within a very small line (about 60 metres long) that did not require the construction of a new plant.
Thanks to this line Shatura has doubled its productivity, because from each partially machined piece, two pieces are made. Each panel is divided longitudinally or crossways, with an extremely wide range of measurements and the line automatically inverts the pieces and edge bands the sides that have been cut, so that the panels are ready for assembly or packing.
Moreover **with this line Shatura has reduced by 2/3 the volume of materials transported**. The line can operate with one single operator, even if generally two operators are needed to supervise a machine with such extremely high production rhythms.
This technical achievement saw the close collaboration between the Italian technicians and their Russian counterparts since the beginning, when the building that was to house the line was fitted with a new ventilation and extraction system and a new compressed air preparation station. The Splitter line is fitted with a cabin that reduces noise and dust.

The line consists of a Mahros Brush D/CSL loading bridge with a double station and mechanical release devices that feed the numerical control Splitter line, with the Celaschi Modul T4 that cuts the panels longitudinally or crossways and sends them to an exchange transfer that passes the panels that have entered on the left to the right and vice versa. The panels then enter the Stefani Evolution SB squaring edgebanding machine and end their production cycle in the Mahros Brush D/SSL unloading bridge.

The line has a production speed of 40 metres per minute and can machine panels 2.5 metres long and up to 900 millimetres wide.

The line is supported by a quality control system that starts operating when the machining of a new batch starts. A spoilboard is used to test the cutting, squaring and edgebanding. When all the operations are carried out correctly the large scale production can start.

The line is managed completely by the **SCM "Watch Line" integrated supervision and control system**. The graphic interface is in Russian and the work programs of the line are recalled automatically with barcodes.

The loading system operates without interruptions so that new stacks can be loaded contemporaneously.
Stacks of panels, with a maximum height of 1600 mm and up to 6 panels in multiple longitudinal and double crossways compositions can be loaded at the line infeed.
At unloading stacks with various longitudinal and crossways configurations can be created on service panels fed automatically.
The batch change is performed with just the machines empty and not the entire line.

Both the Celaschi Splitter and the Stefani squaring edgebanding machine are extremely high performance products. The Stefani is fitted with a special corner rounding unit for PVC edges, that can operate at high speeds, as well as two spindles to perform different grooves at various distances from the edges of the pieces, both horizontally and vertically.
Once the panels have reached the unloading bridge they are collected and unloaded in set compositions, ready to be taken to the subsequent departments for assembly and packing.

The list of functions of the Splitter edgebanding line is almost infinite, which makes this solution a typical example of high productivity married with high standards of quality.

The link between Shatura and Rimini, SCM's headquarters, is very strong and over the years strong relationships have developed with the city, which is a favourite holiday destinations for Russians.
The strong links were consolidated in **2017** with a sizable **co-marketing operation between the Russian company and the Municipality of Rimini. Shatura has created a line of products called Rimini**, and 700,000 catalogues of these products have been sent to Russian families. All Shatura's points of purchase have video postcards of Rimini as well as tourist presentation posters.

Text and photos by Evgeny Kukushkin, editor in chief Woodworking News

FABBRICA MIRLACHOVA (RUSSIA)

Andrey Mirlachov, Fabbrica Mirlachova owner, with Boris Chernyshev, Scm Group Russia General Manager

FABBRICA MIRLACHOVA: **RUSSIA ON THE MOVE**

The exemplary story of Andrey Mirlachov, a "self-made man" who has created a model company, employing 250 people, producing state of the art, high quality furniture. A man with very clear ideas: "In terms of technology I only want the best", which naturally led him to SCM. The plant has a cell designed to guarantee quality and flexibility. In the Russian tradition the furniture bears his name: "I denied myself the possibility of producing poor quality furniture".

Andrey Mirlachov's life and entrepreneurial journey runs parallel to the journey of new Russia, that with pride has returned to playing a leading role in the globalised world. In 1995 the young Andrey completed his military service and found himself in a Russia that had completely changed. The market economy was taking hold with a chaotic capitalism. Mirlachov started working in countless different jobs before being hired, as if by fate, as joiner in a furniture company making sofas. This experience was "his university": there were no work centres, the boards weren't even dried and sprayed water everywhere. It was a time that was defined as "garage assembly". But the market was strong and people queued up to buy new furniture and companies made enormous profits. Andrey first became team leader, then department manager and everything seemed to be proceeding perfectly, until in 1998 the market, coming up against a globalised word, collapsed. The factory closed and all the employees were sent home. Mirlachov didn't give in and used his experience to plunge headlong into another venture. In Udmurtia, 9 kilometres from Izhevsk, he rented a department with machinery from a company that had stopped operating and started producing sofas. In 1999 his first son was born and naturally the first product, a sofa-bed for children with a sliding mechanism that is still in production, was named after him: Dania.

The product was a success and Andrey could start thinking about a new company. In 2000 the first employee was hired, his father, to look after shipments, and then his sister, who from kindergarten teacher became responsible for the sewing department. Then he hired his wife and in 2004 his cousin, who was put in charge of the administration. A typical family run company that in 2005 became "Fabbrica Mirlachova". Naming the company was a difficult decision for Andrey, who felt it was immodest to call the company with his name. But a friend's insistence won him over: *"With your name you become personally responsible for the quality of the product. For centuries manufacturers in Russia have worked this way"*. And so Andrey decided for his name even though to this day he jokes about it: *"With that choice I denied myself the possibility of producing poor quality furniture!"*.

This was the beginning of a company in Udmurtia that currently employs 250 people and produces wardrobes, sitting rooms, beds and kitchens with great personality. The reference market, thanks to the use of exclusive fabrics, original combinations and bright colours is young, active and modern; the most dynamic part of the new Russia. The furniture is shipped in well-made kits and is simple to assemble.
The company's guidelines have always been clear: seeing his past experiences Mirlachov won't compromise, he wants the best technology available. This led him to contacting the largest companies in the escort to understand what the latest machines were and which ones were more suited to his production. He chose SCM's solutions. Andrey explains that his colleagues often criticised him for his obsession with having extremely technological machines: *"At the beginning we may not have been able to use 100% of the solutions that we had available, but for me it was always clear that I was investing for the future. They provided us with the right potential for growing. I was the first in Udmurtua to buy a nesting machine, a drilling unit, a quilting machine and a panel sizing centre. Only now do the others think about these technologies, whilst I have been using them to their full potential for some time and I am already thinking about the next steps"*. There is something that guides Mirlachov's choices: the machines don't have to be merely functional they must also be beautiful. He believes that a company's aesthetic aspect is of great importance. This is why Fabbrica Mirlachova, which covers an area of two hectares, **is a model company where the concepts of industrial design are applied** and where everything must be beautiful and where **workers must be happy and be able to work safely and in comfort.** SCM machines are an integral part of this "beautiful factory".

In choosing SCM the human and professional relationship was fundamental. The Italian company has often invited Andrey to see the machines in operation before buying them and a friendship was struck with Boris Chernychev, head of SCM's Russian office.
The machine inventory used by FM is impressive. They have made sizable investments in sublimation printers for fabrics. But the heart of the company is the woodworking department. There are five SCM machines operating, all fulfilling the high production demands. They began in 2011 with a **Morbidelli Cyflex F900** NC drilling unit, and in 2015 they added four innovative and important solutions: a **Gabbiani Galaxy** panels saw, a **Stefani Solution Md**, edgebander, an **Olimpic S1000** edgebander and a **Morbidelli Uniflex** drilling unit, that create a flexible and highly efficient production line.
The first step in the process for the MDF or chipboard panels is the Gabbiani panel saw with platform, that guarantees precise machining without burrs. This is followed by the two edgebanders: the Olimpic machines panels with edges thicker than 1 mm, because it is fitted with a corner rounding unit and operates with a feed speed of 18 metres per minute. Whilst the Stefani Solution guarantees a feed speed of 15 metres per minute and applies only thin edges. This guarantees the maximum efficiency of the technological process.

Finally the panels are sent to the drilling section with the Morbidelli Cyflex and Morbidelli Uniflex, whose work programs can be changed at an instant and can handle individual orders.

Uniflex is the drilling unit with the highest productivity levels, as it can machine two panels at the same time and is the driving force of this department. The Cyflex on the other hand machines single pieces in "batch 1" and also small sized pieces. The company works in batches of 1 to 300 pieces. Thanks to the numerical control technologies Fabbrica Mirlachova produces high quality products without giving up production flexibility, which means being able to quickly change the type of production, increase or decrease the number of batches being produced based on market demands.

Once they come out of the production line the individual pieces are finished and cleaned. The kits are packed and sent to the packaging unit that operates automatically.

There are no holds barred in the globalised market, but Andrey Mirlachov accepts the challenge willingly and with courage: ***"Our approach is based on quality****: each part of the furniture that we make has our name on it. Our levels of quality are acknowledged by our German and Italian friends, and perhaps one day we may even sell in these markets: I am confident"*.

MØBELTRE AS A LOVE AFFAIR WITH SCM

BORN AMONG THE FJORDS

Havar Tandstad, Mobeltre AS owner

Håvar Tandstad, an industrial entrepreneur, has been using SCM machines exclusively for 16 years and was one of the first buyers of the Morbidelli Author M100: "This machine meets my needs for flexible production and for saving time and space." His company, which also produces packing boxes for refugee tents, is in constant expansion.

Håvar Tandstad, who is the owner of Møbeltre AS, founded his company 16 years ago in Straumgjerde, a village north-west of Oslo, where the lake Fitjavatnet empties into the Sykkylvsfjorden. Møbeltre employs 24 workers, on average, and produces furniture components for Norwegian companies whose products are hugely successful.

Håvar Tandstad, therefore, knows full well the market dynamics. Specifically, he has witnessed the clear trend that has emerged in recent years among many of his clients: the companies have stayed away from large orders of standardised parts and have increasingly focused on small batches, diversifying production and requiring highly-customised machining. Håvar's approach in this changing market can be summed up in a single word: flexibility.

His company must be able to produce in very short times small batches that change often, even daily. To address this issue he must rely on latest-generation technology; that is why the Norwegian entrepreneur has always used SCM products.

As Håvar well explains: *"**We are being asked to produce ever more customised products**, and delivery times are getting shorter. Our company provides high quality products, and it cannot be any other way given the high cost of labour in Norway. Low quality products are imported by Norwegian companies from abroad. We maintain a one-to-one relationships with our clients, each has his own specific requirements and we are able to fully fulfil them with our products."*

Møbeltre works mainly with MDF Plywood (and MDF) panels, as well as Glulam (from glued and laminated), glued pine wood that is as strong as solid wood. What is actually produced are parts for high-quality chairs, exported in a wood container, itself a high-quality product.

In recent years, Håvar Tandstad has focused also on a special product for which there has been a surge in orders. Indeed, Møbeltre now produces plywood boxes for packing refugee tents. As Håvar says: *"When you see on television refugee camps springing up all across Europe, you should know that part of what you see comes from my company."*

By the way, the plywood used for these boxes is imported from the Ukraine, and also in this case the difficult international situation has caused its price to go up.

Besides woodworking, Møbeltre produces a few plastic parts for various companies that request them.

Håvar does not export his products directly but supplies them to companies that focus mainly on exports, especially to other Scandinavian countries, Germany, the United States, Japan and China.

The ties established between Håvar Tandstad and SCM Group are far more than just a good relationship. Indeed, it is an unbreakable marriage.
The company now uses three SCM Record CNC machines, a Sigma beam saw and an Olimpic edgebander, plus a series of classic Minimax machines. **Håvar Tandstad was one of the first customers to buy a Morbidelli Author M100 machining centre** (by May 2017 named Morbidelli m100).

As with all great loves, one can hardly pinpoint the exact reason that started and has driven this relationship between Håvar and SCM: *"I don't know why I bought the first SCM machine when I founded my company. Maybe because it already had a name in the industry, but I don't recall the actual reason. I know, however, why I've never looked anywhere else: the machines have always worked perfectly."*

Among other aspects, the Norwegian entrepreneur prominently highlighted the **high technological quality of SCM products:** ***"The cost of labour in Norway is quite high, and that's why it is essential for us to rely on technologically advanced machines that are truly able to offer us savings on that specific cost.*** *Last fall I also purchased a robot that now helps us in many processes."*

An issue of great concern in Norway is pollution: *"We have strict legislation regarding pollution, and in this case too the machine technology allows us to work with peace of mind. The same applies also to machining waste, as we successfully reduced waste to a minimum. The only problem working at these latitudes is the cost of heating. Fortunately we do not have energy-related problems in Norway, but in our industry we still do everything possible to avoid unnecessary waste of resources."*

Considering future trends, Håvar Tandstad has no doubts: *"Those who would not develop and would not insist on implementing new technologies are bound to face market trouble in the future. Companies that are technologically backward will have no chance of surviving. Technological development is essential and will increasingly be so in the future."*

His company is currently expanding and just because of this, Håvar Tandstad decided to buy a Morbidelli Author: *"The new five-axis machining centre allows us to save time and money during production. This new machining centre represents a great leap forward because it is easy to use and intuitive. It allows me to save production floor space because it has no perimeter protection and the operator can circle around the entire machine."*

Of fundamental value is also Håvar Tandstad's relationship with Bergsli, SCM's Norwegian dealer: ***"Between us we speak Norwegian, and it's easy to find solutions*** *to problems faced by my company. The relationship with SCM is outstanding, with answers always promptly ready, and what's more, the machines have never had any particular problems, have always worked without a hitch and are totally reliable."*

from the left: Dag from Bergsli, the SCM Norwegian dealer;
Diego Sartini, SCM area manager and Havar Tandstad.

ATL GROUP, MASTERS OF CHIC ITALIAN COMFORT!

It's not every day that you see a production line that manufactures 1,200 sofas a day! All with a few precise rules: quality, to the smallest detail and safety. The partnership with SCM lasts for over 20 years.

Franco Tartagni welcomes us with a broad smile: it is said that factories reflect those who set them up and manage them. In this case it is true. This is a large factory, over 45,000 square metres, where everything is organised, well-kept, pleasant even; a factory that seems to smile. Of course there are issues, things to improve and dozens of things to resolve, but the feeling is absolutely positive: it's a nice place.

We are at the Faenza headquarters of Atl, a veritable giant in the production of upholstered furniture, with a turnover of 82 million Euro in 2016. He is one of the founding fathers of this company, with a long history marked by skills and passion, the desire to create something good for himself and for others and the will to reach further.

"… expression of our forty years of business", tells us Tartagni satisfied. *"In 1976 my partner **Luciano Garoia** and I decided to go it alone. We are in the heart of an area renowned for the production of upholstered furniture and we worked for a company that produced the polyurethane for the upholstery. In those years there was no shortage of work and it didn't take a lot of courage, I must admit. We were very pleased that a few colleagues decided to take the plunge with us in this adventure and in the end there were eleven of us and two girls who were so young that they couldn't even be partners. This was the beginning of our cooperative Cipes, with Garoia and I running it, which to this day, after many years and a lot of water under the bridge, is a pillar of the **Atl Group**, of which it holds 30%. The first year was terrible, also because someone feared that what we did could inspire others, throwing into disarray an entrepreneurial landscape that was very traditional. We held on, finding our first customers outside of the Forlì area, and things started going well; probably due to the fact that we understood before others, that the most important thing was service.*

The demand was strong and the factories had to concentrate on their work, outsourcing all the upstream machining operations to third party subcontractors. Over the years we learnt to do everything, to give our customers in white processed upholstery frames ready for being upholstered. We bought two woodworking workshops, today part of our new headquarters in Faenza, to construct upholstery frames, structures, etc. We grew quickly and little by little we started producing finished sofas, ready for the customer. This step led us, in 1997, to becoming suppliers of an important large scale retailer and, in 2002, of a chain of top of the range shops with a worldwide presence".

Franco Tartagni, Atl Group founder and co-owner

Everything went splendidly: the group, thanks to start-ups and takeovers, grew stronger and developed its skills so that it could approach the market by offering everything, from design to the finished sofa for a living room or office. Important collaborations that opened new possibilities were consolidated: from the residential to the contract, with the capacity to manage and produce for different market segments, from the more ordinary products to leather sofas with sophisticated shapes.

"In 2010 we came into contact with a well-know and consolidated Italian large scale retailer, with 200 retail outlets, which gave us an important challenge: producing one thousand sofas per day".

"I won't go into details, but we bought from the multinational company Golden Lady the Omsa plant that they had decided to close and we turned it into the factory that you see today", tells us Tartagni looking around. *"We employed 150 of the people that they would have laid off. On 22 April 2012 we bought the building and in September we started producing with the new staff trained with our intensive courses, in a completely renovated building and a*

brand new plant. In a few months we achieved a miracle, without taking into account the earthquake that struck the Emilia area in those months and which brought many of the workshops that were working for us to their knees".

In the 45,000 square metres of the Faenza factory they produce 1200 sofas a day: "I think it's the largest plant for upholstered furniture operating in Italy today", explains Tartagni. 500 of the group's 600 employees work here, as well as at least another 300 subcontractors, for the production of sofas, cutting the polyurethane and in the woodworking workshop, that serves all the group's production units.
The top of the range leather sofas are produced in the 10,000 square metre Bertinoro plant.

But the new Faenza plant is truly impressive: *"…it's an extremely flexible plant, that allows us to do every day what we set out to do", continues Tartagni. "If, for example, we have scheduled that today we must produce 1,125 sofas. By tonight 1,125 sofas will be loaded on the lorries. Bear in mind that every day we work on at least* ***60 different models*** *and each model has twenty versions, which means that the 1,200 sofas that on average we produce every day are in* ***300 different versions*** *in terms of shape, colour, size, number of seats and functions. Each shuttle of our plant is the bench where one of our sofas is constructed and assembled from the first wooden pieces for the structure, to the finished product. All according to a set schedule and a computerised management that warns each work station of which mechanisms or materials they must prepare for the next sofa".*
But how does it all run so smoothly?

*"**Thanks to the organization and the technology,** even if producing a quality piece of upholstered furniture is a job that requires **a high level of craftsmanship**, where the human skills and touch always make the difference. Especially in the final phase, in the upholstery, where the sofa or the armchair are dressed piece by piece and where the craftsmanship of the worker makes the difference: bear in mind that for each high quality leather piece of upholstered furniture that we build, at least seven or eight hours are required for the upholstery. And here there are no technologies or automatic processes, but just great skill and an immense passion for the job".*

Where does technology help you?

"During the cutting phases, of the wood and the materials or the padding. Here we have perfected the procedures so that the preparation of the semi-finished pieces that our craftsmen will then assemble is as industrial as possible.
At the beginning of our work as joiners, when we purchased the two laboratories, that for us became of strategic importance, because they allowed us to manage the entire product chain, we had at our disposal only a few traditional and simple machines: band saws, some planers, a multi-blade, cutters and little else. Also in terms of safety, the latest technologies have allowed us to make some significant improvements. It was the desire to make certain phases of our process safer that brought us into contact with the SCM Group. It was 1988 and we discovered that they had a machine that suited us, allowing us to work in complete safety on wood and panels. We bought one immediately and it was the beginning of a very satisfactory relationship that lasts to the present day.
We grew with them, we learnt to know each other and find the most suitable solution. They installed our first panel saw and, recently, another angular system, two machines that allowed us to take a huge leap forward in terms of productivity and safety.
You see, if today we are capable of producing ***1,400 sofas a day*** *it's because we have invested in people and technology. Applying precise organisational criteria, keeping up with the* ***technological innovation*** *has meant lowering production costs, streamlining our procedures, increasing our possibility of guaranteeing our customers what they ask. Always in utmost safety, which for us is paramount".*

A visit to the ***large woodworking workshop*** in Faenza reveals what Tartagni means. Stacks and stacks of pieces, wooden parts, ready to feed a non-stop production chain. About forty operators work in two shifts to prepare the strips and shaped parts that, joined together, will become the structure of a sofa or armchair.


Photo: Immaginariamente

Text by Luca Rossetty - Xylon

"A well-made and sturdy wooden structure is not worth much, from an economical point of view, in relation to the final cost of a sofa. At Atl though we believe that a good structure is essential for a good sofa. It's not worth cutting corners, so much so that we use first rate panels and wood, a philosophy that applies to all the raw materials that enter our plants. Producing large volumes, as I said earlier, requires no problems or interruptions in the process. It's certainly not worth compromising the effectiveness of our assembly line for a poor quality panel or a piece of wood that suddenly breaks".

"A few months ago we purchased from SCM a ***third Gabbiani panel saw****, that we added to our other two, which I think is a small revolution in the panel sizing world. We defined this project with the Rimini technicians, because we were looking for a solution that allowed us maximum flexibility. The result exceeded our expectations and we have a cutting line that allows us an incredible level of productivity. We can machine any type of material without any issues, without neglecting the convenience of aggregates, with which we can turn the panels and, to all intents and purposes, machine them as if it were an angular system, relieving the workload for the operators. Now all you need to do is load the panels and wait for the cups pushers to do the rest! It is an extremely versatile and powerful machine that has changed the way we work in our woodworking workshop. Before we were always running behind, but now the production of most of our semi-finished products can be managed easily, which for a highly structured schedule such as ours is an extremely important advantage.*
We are so satisfied with this way of resolving any issues that we are already assessing new investments for our machine inventory of nesting work centres. In fact we have used SCM Record-Accord solutions for years, whose update, I am sure, will give us the same satisfactions that we have had up to now and with the latest investment.
And there is another aspect of our relationship with SCM that I want to mention: ***the quality of the technical support****. Our systems must be reliable in any circumstance. This is why we chose technological partners that can provide the best support.".*

SANDI MOBILI **THE BED** THAT APPEARS AND DISAPPEARS

Magic? Yes perhaps there is a pinch of magic: a piece of furniture that opens, a sofa disappears revealing a wall with shelves, containers, LED lights and a comfortable bed. All with a simple movement, no effort and a lot of style. Thanks also to SCM technological solutions.

from the left: Bruno Di Napoli, SCM CNC machining centres BU Manager; Claudio Santinato, Sandi Mobili co-owner; Maurizio Ippico, SCM technician; Luigino Santinato, Sandi Mobili founder.

"Well without technology we wouldn't be able to do almost anything: it is a determining aspect for our company. It allows us to create our collections, it affects our way of thinking the product, it allows us to reach the objectives that we have set ourselves… Without constant investments in technology, from the moment my father setup this company in the seventies, we certainly wouldn't be where we are today".

Claudio Santinato, co-owner with his sister Barbara of SANDI MOBILI of Bovisio Masciago in the province of Monza and Brianza , surprises us. He knows full well that we are here to see an SCM group work centre, the Morbidelli Planet P800 in action and he sums up the situation in a few words. Without technology certain passages would not have been possible and Sandi Mobili might not have grown to its present size or it might still be constructing upholstery frames for classic living rooms. This is how the company began in the early seventies, when Luigino Santinato (father and founder of the company) decided to stop working as help in a local kitchen and starting making upholstery frames.
Today the Santinato family can count on internal and external collaborators.

An 800 square metre showroom and 1600 square metre production space, reflect the choice of investing heavily on technologies that allow them to be small, flexible but still be able to guarantee customers quality, aesthetics and performance, whether final consumers, retailers or furniture makers for whom they work as subcontractors.

"When my sister Barbara before me and then I afterwards, started working in the family business – explains Claudio Santinato smiling – *we understood that the time had come to change direction. We had to move on to working with panels, whilst still continuing being true joiners, capable of producing numerous different things. At Sandi Mobili we are certainly not afraid of change: we continue producing upholstery frames and, by collaborating with other companies, we started producing finished pieces. We also make furniture. Anything they ask us for we are ready. Whether it is a family looking for a living room, a furniture maker looking for a quality subcontractor, a retailer wanting to broaden their portfolio, which today is 90% of our business".*

Until a few years ago, when the Santinato siblings, in a difficult market situation, came up with the Soluzioni Salvaspazio (Space saving Solutions).
The name is self-explanatory, they devised a solution to enhance and multiply living spaces. Single beds, double beds, bunk beds: customers just need to explain what they need and the Santinatos find the right solution. These are a far cry from the lacklustre and uncomfortable beds that we have all had the misfortune of trying at least once in our lives, in temporary situations.

When Sandi Mobili decided to create the **"O'Clack soluzione salvaspazio"** collection, they decided to do things right. Space saving furniture that didn't have anything in common with a domestic campsite. Therefore well-designed and constructed furniture with quality finishes and trendy colours and when the bed is opened everything appears and disappears. Fitted walls, shelves, LED lights, padded headboards, containers for cushions, sofas that disappear without having to stack or move everything in a corner of the room. All, obviously, rigorously made in Italy.
Thanks to a mechanical solution that is well-designed, patented, tested by test labs (Catas) and constructed by trustworthy suppliers, living spaces are transformed, they change their use in an ordered, comfortable, practical and pleasant way.

"We worked for over two years on this project", explains Claudio Santinato.
"Houses are increasingly smaller and there is a real need of managing spaces in the most intelligent way possible. We worked on this for a long time, but now the "O'Clack" collection is a continuously evolving range. With a simple movement day becomes night: this is our challenge and our philosophy.
Many come to us to resolve problems of space and we put all our experience and skills at their disposal: in a maximum of six weeks the problem is resolved.

A quality product, a continuous innovation both in terms of functionality and aesthetics which uses melamine or lacquered panels, with thick Abs edges.

"The edgebanding is an important aspect of a piece of furniture. It improves the aesthetics of the finished piece as well as protecting the edges. In recent months we have been working with a Stefani "Solution Md" edgebander that we can use with Eva, polyurethane glue or hot air. The latter is a solution that allows us to further increase our appeal, with a very minimal strip of glue. A heavily automated process that achieves results that frankly we would never have imagined,", says Santinato. "We can make panels with an excellent finish: they seem lacquered".

PARTNERSHIP

"Whatever we do, our way of working is through consolidated collaborations", continues Claudio Santinato. "Also in terms of technologies: we have always worked with SCM Group. Together we look at what they can offer, to understand what we could do to improve it further, together.
Without technology we wouldn't be in the running and for us having a reference partner was fundamental. On the other hand today you can produce any piece of furniture with three machines: panel saw, edgebander and a work centre. Today it's difficult to find good joiners, without considering the speed at which tastes and materials change. If you cannot adapt quickly and if you are not ready to change your habits you run the risk of falling by the wayside.
For just over a year we have been working with an extremely powerful work centre, the ***Morbidelli Planet P800****, which we use for drilling and routing, as well as edgebanding all curved or complex profiles.*

Working with the SCM means being able to count on an integrated system of machines that can communicate with each other without hesitations. Most importantly it means that we can exchange impressions on the machines in order to implement the best solution possible. I think that I can safely say that we built our Planet together, in order to reach the absolutely optimal level.
We do everything with the Morbidelli Planet P800: squaring, edgebanding, drilling, routing with five axes. A compact woodworking workshop in a single machine, automatic tables also for two panels at the same time, compact heads, presser rollers that can be quickly changed to achieve any edgebanding finish, working with plastic or wooden edges, with a minimum radius up to 15 millimetres or 45° profiles. This machine allows us to think of new opportunities every day".
Just to give you an example: the work that you can see in the machine was made last year by one of our competitors. This year we can do it too, thanks to a larger roller that allows us to apply a difficult aluminium edge perfectly and without any undulations. We can be more competitive and not lose any orders".

"A considerable part of our production passes through this Morbidelli Planet: it's a fast machine that is not so far from the idea of an automatic factory, even though the human supervision and intervention is always needed", concludes Santinato.
At Sandi Mobili they have their gaze firmly set on the future: an **"O'Clack Easy"** line that includes space saving beds with guaranteed performance but at even lower prices, for those needing temporary solutions or for second homes, that could even be sold in kits, online.

Text by Luca Rossetti - Xylon

Virginio Minotti

FURNITURE

FRATELLI MINOTTI (ITALY)

FRATELLI MINOTTI: THE EDGEBANDING SPECIALISTS

At Fratelli Minotti every design request and requirement is made possible thanks to the individual skills and SCM technology. The company, located in the heart of the Brianza, works as a subcontractor for the most important furniture factories. Entering the premises one has the impression of being in a showroom, where three generations of SCM edgebanding machines and two generations of squaring units operate at the same time. The new Morbidelli Author M600 work centre allows other types of machining operations and new orders.

The Minotti brothers and their company represent the essence of the active Brianza and its values, that have made this land one of Europe's leading districts of production excellence.
The family, the correctness, the commitment, the work (a lot of it), the trust in individual capacities, the sobriety of the approach and the technology are the distinctive traits of this, as well as other companies, in this area.
As far as the Minottis are concerned, it all began in 1973 when Luigi and Virginio decided to accept the inheritance of their father Giuseppe, a very talented cutter, and started their business dedicating themselves to edgebanding in particular.
The years after the post war economic boom maintained the euphoria of a country that had picked itself up from its feet, despite showing the first signs of difficulty and social tension. The Brianza furniture factories produced high quality furniture that was very successful in Italy and Europe. The companies worked at full capacity and there was a need for subcontractors specialised in specific machining operations and the Minotti brothers soon made a name for themselves for edgebanding.
In 1976 the Minottis carried out the first shaping work, which was then followed by softforming, of which they have become undisputed masters. From that moment onwards the company established itself as one of the leading edgebanding sub-contractors for the largest companies in the sector.
Fratelli Minotti currently employs ten people. The presence of the family is fundamental: the owners Luigi and Virginio and their sons Stefano and Davide.
For the new generation of the family the responsibilities are constantly increasing and they are responsible for the management of the new sophisticated machines that make extensive use of electronics.

Fratelli Minotti is fully part of the Brianza production process. The main customers, located in an ideal radius of 10 kilometres, are proud representatives of made in Italy furniture that continues to represent the pinnacle of the global furniture sector.
For the Minotti brothers trust and reliability are not taken for granted, but are tangible values that must be measured and tested every day. Naturally this led to a stable and long-term relationship with SCM.
The Cabiate plant is a sort of showroom for the latest SCM solutions and at the same time a functional museum of the group's technologies. Updating the machines is fundamental for the Minottis, but if a machine is still operating well, it continues to be fully integrated in the production process. Visiting the company is therefore fascinating because one can see thirty year old machines next to the latest work centres and edgebanders.

The Minotti brothers have made a name for themselves with wooden edgebanding, but the production includes ABS, PVC and melamine materials. The company produces furniture parts requested by its clients, who then assemble them or they proceed with other machining operations in order to deliver the finished product.
The production cycle of the market has changed in recent years. From the large productions of a single part the market has shifted to small batches for increasingly customised solutions. In order to meet these demands SCM technology played a leading role in the Minotti's activities, which count flexibility as one of their strengths.
Due to the specific aspect of these machining operations and the customers' requirements, the edgebanding is performed on a single side of the panel and certain delicate operations are finished by hand because the final product must be perfect, without any defect.

Visiting the company where everything is spick and span is like taking a trip back through the history of wood working machines.
Various generations of machines can be found side by side, still operational, thanks to the meticulous attention given to their maintenance.
As far as the edgebanding is concerned, the latest addition is a **Stefani Solution** (since May 2017 **"Stefani S"**), which became operational just before Christmas 2016. This extraordinary machine allows **operations such as the J shape and it can perform any type of edgebanding to meet the creativity and requirements of the most demanding customers.** The Stefani is reserved for the most specific machining operations and its software is fundamental for the precision of the work,which is supervised by Stefano Minotti, who is the family expert for these types of operations.

The company also uses two cells that have the same composition, even though they belong to two different generations. The first and most recent is a **Celaschi squaring unit** that machines the panel to the desired measurement. This is followed by the Stefani Monomatic edgebander, which takes care of the heavy-duty work.

These machines are a testament to the reliability of SCM equipment; the years pass and they remain perfectly operational. The unloading is taken care by an automated storage system that prepares the panel, edgebanded one side at the time, for the subsequent passages.
The other cell is rather unique as it includes a **"tipo 280" Celaschi** and an **Olympic System**, both thirty year old "grande dames", but still operational. As Virginio Minotti explains: *"For certain very particular machining operations we prefer using the Olimpic, which becomes a sort of assistant for the manual work"*.

As far as the work centres are concerned the jewel in the crown at Fratelli Minotti is the latest **Morbidelli Author M 600 (since May 2017 "Morbidelli m600")**, complete with all the optionals, that allows the company to meet the customers' requirements also for other operations. Any type of drilling and routing is possible, to complete high quality elements. In this case it's the other young Minotti, Davide, who looks after the new Morbidelli, where the lion's share of the work is carried out on the graphic interface and the Maestro software, which can easily be programmed for any type of machining operation. Thanks to this work centre the Minottis are able to fulfil orders for extremely specific productions, where all the machining operations and the furniture parts are produced entirely in-house at the Cabiate plant and often even partially assembled.

Virginio's words sum up Minotti's experience: *"Our work is based on technology and the personal skills of each one of us.* ***Our machining operations are so cutting edge that we must continuously invest in equipment that allows us to respond to the precise requests of every customer.*** *This is why we have chosen SCM solutions over the years. Their machines can adapt to our highly flexible production and are guaranteed by an extremely professional technical support".*

Photo: Immaginariamente

NATUZZI: BEAUTY BORN FROM THE LIGHT OF THE MEDITERRANEAN

The largest Italian furniture company maintains its masterly mix of advanced technology and craftsmanship. The innovations in the production process have led to the Moving Line, derived from lean manufacturing, which features a state of the art SCM cpc semiautomatic packaging line.

The light of the Mediterranean and its contrasts, cradle of civilisation, have been a source of inspiration for Natuzzi since its beginnings. The group founded in 1959 by Pasquale Natuzzi is the largest Italian furniture company and one of the leading players in the global furniture market. The history of this group and its founder are well-known. As well as his business successes, Pasquale Natuzzi has distinguished himself for his commitment to social issues and for his vision, which have rendered him one of the leading Italian business men most appreciated in the world.

Natuzzi is the best known Italian lifestyle brand in the world for the furniture sector. The brands “Natuzzi Italia”, “Natuzzi Editions” and “Divani&Divani by Natuzzi” can be found in 123 countries and the widespread customer direct sales and technical support network is managed from 11 offices.
Ethics and social responsibility, environmental awareness, continuous stylistic research, creativity, innovation, solid craftsmanship and industrial know-how and the integrated control and management of the entire value chain are the strengths of the group, which has been traded on the New York Stock Exchange since 1993.
Unlike most Italian businessmen Pasquale Natuzzi had already understood, at the end of the nineties, the importance of the challenges arising from the globalisation processes and set about an important restructuring of the group, transforming it from a business to business model to business to consumer, focusing fully on the potential of the **“made in Italy”** aspect. In 2013 he launched a new sizable industrial plan for the product and the production process, with the aim of further

improving the global competitiveness of the group, without trying to compete with developing countries in terms of price and render “made in Italy” products economically sustainable.

In terms of innovation the Re-vive armchair is currently the icon of the group. The extraordinary design is combined with a simple and revolutionary idea: **it’s not the body that must adapt to the seating position, but the armchair that must adapt to the characteristics and movements of the body.** All this was achieved without internal mechanisms or manual devices, but thanks to a series of innovative design features.

In terms of production **Natuzzi has changed the production logics of the sofa**, by adopting the **industrial platform** method, already used in the car industry. Previously sofas were assembled by a single worker in the same position. Now the sofa is designed by each individual component (used for various models) and assembled with the **Moving Line** production process, on which teams of assemblers work, fitting in sequence the various parts of the sofa. Currently 80% of Natuzzi’s turnover comes from models designed with the new platform approach and produced with the new process. The advantages are greater synergies, improved ergonomics of the work stations, reduced movement of the products and reduced risks of damages. The new process has guaranteed a further improvement in terms of quality and productivity.

Using the Moving Line has changed the production considerably, this is why Natuzzi has introduced new solutions for the packaging process and this has given rise to the new collaboration with SCM.
We have developed an **SCM cpc semiautomatic packaging system** for the finished products (sofas and armchairs), that meets precise specifications. First all the production line had to be compact and sized in relation to the Moving Line, easy to insert in the current and future layouts of the production plants, taking into account that the packaging follows the assembly and it is no longer in a separate department. Therefore it had to keep up with the faster product outfeed/completion pace than the previous production system. Finally it had to **guarantee flexibility in use to meet the requirements and demands of the Natuzzi packaging, as well as allowing the customisations requested by specific customers**, by inserting additional accessories and protections to safeguard the products.

The packaging line has been built based on these requirements and SCM has met every customisation requirement for the machine. Today in the Experimental Laboratory of Santeramo in Colle, longstanding headquarters of the group, there is a complete packaging line operating with a Moving Line and perfectly integrated in the factory layout. Thanks to this innovation the **packaging times have been reduced by 50%**, compared with the previous manual system. The SCM CPC solution also improves the work of the operators from an ergonomic point of view and improves safety in the workplace. Thanks to the handling, lifting (both hydraulic) and the mechanical rotation of the sofa, the operator remains always on the same side of the station, reducing fatigue and unnecessary movements.
The new packaging system has also improved the quality and exterior look of the package, because the greater level of standardisation of the process, guaranteed by the machines, allows for constant and preset specifications. Finally the use of the semiautomatic line allows the company to optimise the use of resources dedicated to the packaging and save on materials.

The current production trends are for an extreme level of automation. In **Natuzzi they believe in the combination of human knowledge and state of the art technologies**, an extremely valuable company heritage. Natuzzi is not aiming for total automation, as they are fully aware that in this sector craftsmanship still makes the difference.
As far as the environment is concerned Natuzzi employs the strictest standards. The concept of sustainable development has been applied to the production and sales processes. There is a substantial use of photovoltaic energy and technologies with a low environmental impact. The materials used are natural, such as wood and leather, and strict company policies have been implemented in terms of deforestation. Natuzzi has obtained the highest environmental and quality certifications because the group is aware that development is only possible if it’s sustainable. The certifications include the ISO 14001, integrated with the ISO 9001 quality management system. In 2016 Natuzzi obtained the FSC (Forest Stewardship Council) certification, given to companies that transform and/or sell products from certified forests.

JOUBERT PLYWOOD, A JOURNEY TO THE HEART OF PLYWOOD

The day begins early, after a good coffee and a journey through the French region of the Charante. We are here to visit Joubert Plywood, a company specialised in producing poplar and okoume plywood. The group is a family owned concern, currently run by the third generation, with three production sites, one of which in Port-Gentil (Gabon), one in Saint-Jean-d'Angély and the third, which is the one we visited, in Eliots, north-east of Angoulême, where a Celaschi panel squaring line has been fully operational for a few years.

Before it reaches the Celaschi line, the wood is transformed in plywood. "We retrieve the unfinished sections of poplar, which we cut lengthwise", explains Laurent Marty, the Industrial Manager. "We then pass them through a short wood peeling lathe that can treat wood up to 2.7 metres in length. They are then dried with a new system purchased in 2016, which is 30 metres long and 6.20 metres wide". After the peeling, the poplar sheets are thoroughly checked. If any break, the strips are sent to the joining laboratory: "where they are processed to create intact sheets", continues Laurent Marty. "In particular they are straightened and re-assembled with the application of a strip of glue". Finally the set of sheets, in poplar or okoume, is glued and passed under the press to obtain plywood panels ready to be squared in the Celaschi line.

90° transfer integrated in the cross machine, for the management of thin panels ensuring high productivity.

Custom squaring

The Celaschi line, which became fully operational after only 3 months from delivery, is fitted with an automatic loading system and today operates in a shift. Equipped with specifically designed tools “it can machine 4000 panels per shift, with lengths which range from 2.15 metres (for doors) to 3.10 metres”. Moreover there is no need to change the tools when the type of wood changes. *“Currently we use only two or three sets of tools per year, knowing that the machine does not vibrate and that it ensures that the pieces are held securely allowing for a high level of machining precision”.* Once the dimensions have been programmed, the panels are cut along the longer side, whilst the scrap is unloaded laterally and milled. The panels are then transferred with feed pistons to ensure the squaring. *“This custom transfer system has been developed thanks to a close collaboration between SCM and our design office”*, explains Laurent Marty. *“Since the machine has been installed we are very happy with the machining results”.*
The second panel squaring line machines the short side and the scrap is collected and recycled as fuel for the boiler. The panels are then fully finished and ready to be shipped in France and worldwide. Joubert Plywood exports 70% of its production, in particular to the Netherlands, which is the group’s main market.

Text by the magazine Bois Mag
Photos by Joubert Group

the lengthwise trimmed panels are 90° transfered for the cross trimming; the chipped overhanging selvedge is recycled as a fuel for heating.

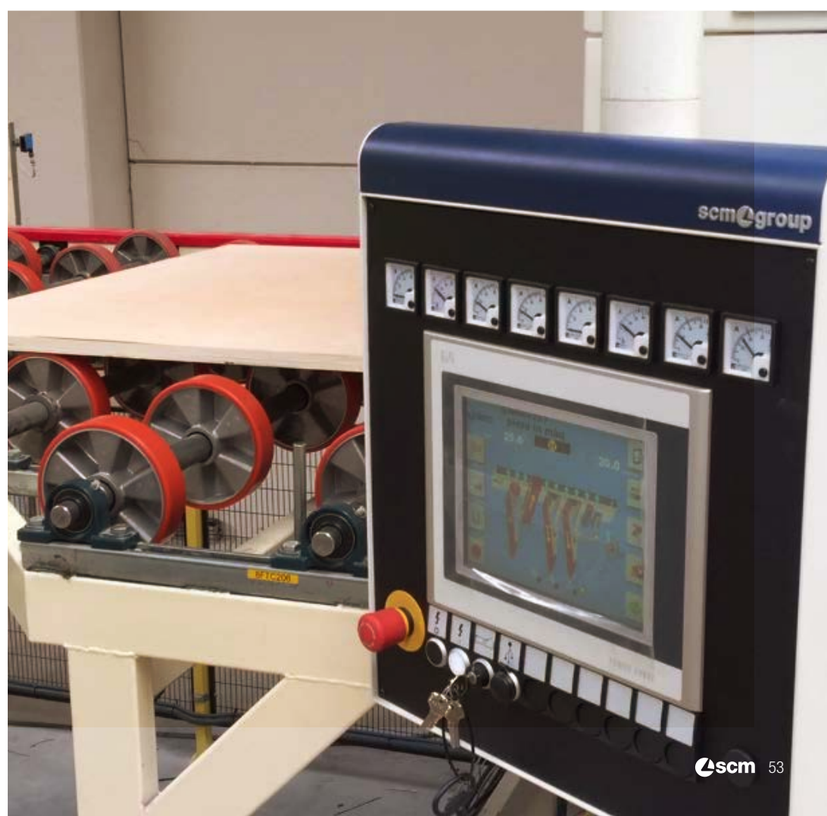
CHALLENGING THE ORDINARY AT GARNICA

The Spanish Group produces high-quality plywood panels and has adopted an environmentally friendly policy based on the use of sustainable plantations. It recently installed in its Fuenmayor plant a new high-tech cell system for panel finishing equipped with Superfici and DMC solutions.

"Challenge the Ordinary" is the slogan used by Garnica, the leading Spanish plywood producer. It is a slogan that has no business nor marketing purposes, but that stands for the values that make Garnica a group that is indeed out of the ordinary.
It all started back in 1941, when the family-run sawmill was founded in Baños de Río Tobía, a small village in the La Rioja autonomous community. Since then, Garnica has constantly and vigorously grown to become a world-class company that is acclaimed for its high-quality panels, used mainly by the furniture, housing, caravan and marine industries.
It currently employs some 830 workers in five different plants in Spain (Logroño, Fuenmayor, Valencia de Don Juan and Baños de Río Tobía, the Group's headquarters) and France (Samazan).

Garnica's challenge to the ordinary is evident above all in its **close attention to environmental issues** and to **forest sustainability**. The Group's goal is to produce the best plywood for the most demanding customers; all while running an integrated process that is based on sustainable plantations and avoiding the exploitation of tropical essences.
Garnica manages by itself all processes, starting with planting the poplar trees and all the way through producing the panels which, thanks to their outstanding qualities, are famous around the world. The Group manages its tree nurseries, the trees' growth, the tree cutting (at the most opportune moment), as well as the entire industrial process that comes at the end of the complete cycle. Garnica also places great emphasis on ethics, and has adopted very strict guidelines and consequently has earned the most

prestigious and recognised environmental and quality certifications.
The Group's commitment to innovation is constant and it is no coincidence that Garnica stands out for its continuous investments in the production process and for its introduction of technological solutions that are in line with its high quality standards.
This type of approach naturally led to its ties with the SCM Group, which has been providing Garnica with high quality machinery.
In 2015, a DMC System sander was installed at the Fuenmayor plant – the Group's main manufacturing centre, employing 160 workers. It came with four upper units and four lower units, each consisting of a roller, cross belts and two superfinishing belts for panel processing. Due to its unique qualities, the DMC sander has been most appreciated by the Group, and last year it issued a massive order for a **complete painting and finishing line based on Superfici and DMC solutions.** This line has just been commissioned. Panels that have been prepared by the first DMC sander are conveyed into the line, which consists of 2 Sisal 1 dusters, 4 Valtorta S4 fillers, 2 3-belt DMC System sanders, 2 Valtorta S1 finishing machines, 6 ultraviolet curing ovens with 2 and 4 lamps. The line is arranged in two 54-metre long parts, served by a swing conveyor, that amounts to a total length, excluding conveyor systems, that exceeds 100 metres.
The process involves several steps that produce a final perfectly-finished product ready for delivery. The Fuenmayor plant produces most often laminated panels of various types, mainly for the furniture and interior decoration industries.
For SCM this is a most important collaboration with a customer that considers quality, environmental sustainability as well as a global vision that calls for reducing waste and limiting the exploitation of other areas of the planet values that should be generally shared by all.



AUTOMATED FINISHING REACHES THE NEXT EVOLUTION

Discover more about the cutting-edge automated finishing line installed by Superfici America at a large supplier of residential doors, located in the Midwest.

In today's competitive global market, making your manufacturing process more efficient by implementing automation is an absolute necessity to stay competitive and successful. As companies incorporate high volume, complex, automated finishing lines, a key component to the successful operation is state-of-the-art control systems allowing for pre-programmed "recipe" selection and part tracking. Displaying the current state of your finishing line in the glance of a screen? Yes, please! Tracking recipes, identifying parts, performing automatic color changes, adjusting thickness and the numerous finishing line parameters at the push of a button? A must-have! It's all available with **Super-Vision by Superfici**.

Tracking parts has never been easier, especially with a customer-chosen RFID or barcode system that communicates with their warehouse and shipping department. SuperVision, acting just as a traffic light would, **oversees all areas of your finishing line**. From **recalling the recipes that are programmed on individual machine PLCs**, to stopping and starting the line when gaps are needed.

Spraying in full automated lines is, as an example, easily managed by our **Magnum**, the premier machine among the Superfici spraying machines, guarantees the highest quality level combined with high capacity.

The machine features **multiple reclaiming units** to execute product/color changes without any machine stoppage required, as well as reclaiming of the different materials used.
Automatic color change or lacquer mixing systems are also easily integrated and controlled by the machine software; the requested color can then be even centrally selected on the line control interface, thus managing all necessary operations to start with the new color.

The **Filter on Demand system**, available as an option on the spraying machine, automatically changes the air exhaust filter, after a preset production volume has been produced. This improves ventilation quality and constancy inside the cabin while keeping the machine constantly operating.

The drying process reaches the highest flexibility by using **different dryer types**, that can be **modulated in their drying parameters according to the required drying cycle**. The central line recipe selects what needed to process the different jobs. The line can be engineered to perform the most varied drying cycles, combining for example vertical dryers, flat dryers and UV curing systems.

Sanding machines are also perfectly integrated in the whole process. There might be wide belt sanders, brush sanders or special edge sanding units in the line; all of them are centrally controlled so that the right local machine program is activated to execute the right sanding cycle.

Adding to the SuperVision automated finishing technology, to complete a truly state-of-the-art line, **automatic material handling** is a must-have. Cross transferring, panel tilting and loading/unloading of the pieces is all automatically managed by the line recipe.
Handling robotics deserves specific highlight; from loading and unloading, to sorting based on color, material, SKU and more, these material handling robots save companies and employees hundreds of hours a year!

With automated integrated finishing controls, high color visual screens and easy-to-use programming, the SuperVision system takes your business & success to the next level.
When it's more than a machine – SuperVision by Superfici

Text by Rachel Sheerin
(Superfici America)

INTERNORM (AUSTRIA)
MC FRANCE (FRANCE)
SHEPLEY (UK)

02

DOORS AND WINDOWS

DOORS AND WINDOWS

INTERNORM (AUSTRIA)

INTERNORM NUMBER 1 IN DOORS AND WINDOW FRAMES IN EUROPE

Internorm is the European leader in the production of doors and windows and known internationally for its ability to offer innovative solutions to the most demanding customers. Since it began in 1931 the family run company is based in Traun, Upper Austria, has produced over 23 million doors and windows. Internorm is amongst the pioneers in the production of PVC doors and windows and has been the long-term reference point on the market and renowned supplier of high quality wooden/aluminium systems. From the development to the production, all the stages of the process are performed in the three Austrian sites in Traun, Sarleinsbach and Lannach. Internorm currently counts 1,800 employees. Along with almost 1,300 sales partners in 21 countries, the company continues to strengthen its European leadership position.

Internorm has always been at the forefront in the production of doors and windows. Set up in 1931 as a metal carpenter's workshop, in 1963 it was the first Austrian company to specialise in the production of PVC windows. Today, after over 50 years, Internorm offers a wide and perfectly integrated range of door and window systems in the PVC, PVC/aluminium and wood/aluminium segments. Entrepreneurial foresight, technological know-how and an eye for design soon led Internorm to the pinnacle of its sector. Since its beginnings the considerable commitment to research and development, have marked the company's evolution. Over the last decades Internorm has set new reference parameters, thanks to state of the art technologies, such as for example the launch of the three pane and three gaskets window system in 1979, the first lead-free PVC window in 1994 or the first wood/aluminium window with highly insulating thermo-foam.

In-house extrusion and production of tempered glass: when independence results in innovation

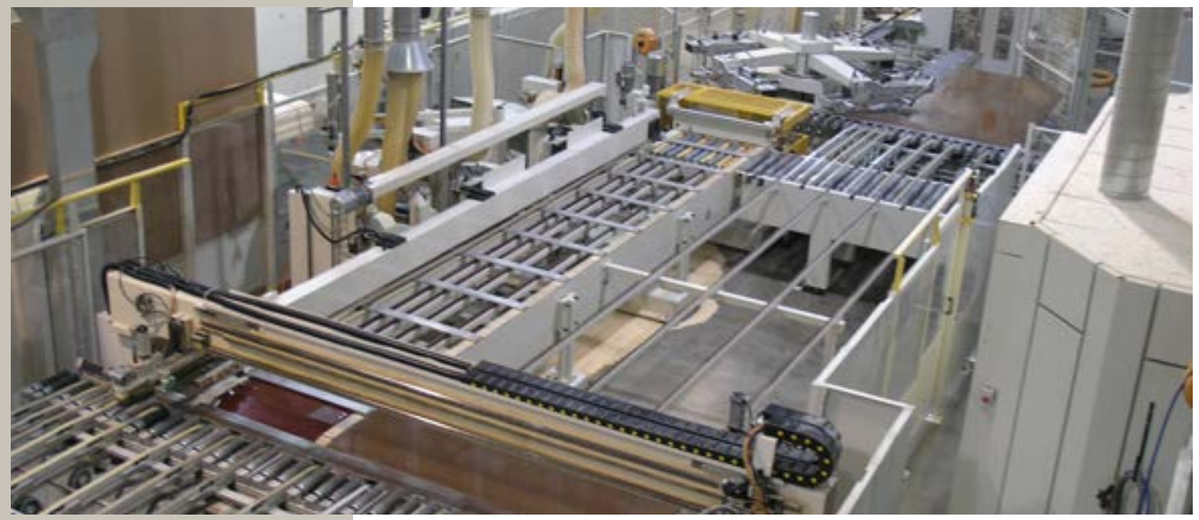
A fundamental factor that explains Internorm's considerable ability to offer innovative solutions is the decision to produce in-house all the elements of the doors and windows, implementing a veritable vertical production integration and avoiding the need for external suppliers. This is why, the profile extrusion activity marked an important landmark in the company's history. Internorm is the only Austrian manufacturer of doors and windows that sells its profiles nationally. With the tempered glass (ESG) system inaugurated in 2015, Internorm broadened its production capacity. With an annual production of over 134,000 pieces, Internorm is today Austria's leading manufacturer of ESG.

Market leader in Austria, number 1 in Europe

For decades Internorm has been the Austrian leader in PVC windows, PVC/aluminium windows, wood/aluminium windows, energy saving windows and for passive houses, front doors, shutters and insulating glass, as well as being the number one brand in Europe for windows. In 2016 the company had a turnover of 322 million Euro, with 1,800 employees (equivalent at full time).

"Global concept of door and window system" – production in the three Austrian sites

The door and window systems are developed and produced entirely in Austria, in three extremely modern plants. Internorm has total control of the "global concept of door and window system", from the research and development to the extrusion, production of insulating glass, production technologies and the state of the art logistical systems. This is why it develops the design of doors and frames in-house, up to the custom hardware, independently of system suppliers. Internorm's main office is in **Traun**, Upper Austria. As well as the insulating glass and safety glass, in Traun they produce the special products in PVC, such as round, arched and tilted windows, as well as double windows, aluminium shutters and aluminium front doors. This year they celebrate forty years since the inauguration of the **Sarleinsbach** plant. From 1977 to the present day, this site has become the most modern European factory of doors and windows and the company has the



Automatic wide belt sander DMC System T7

highest number of employees in the region. Since it opened the plant has produced almost 15 million units of PVC windows. Today it produces over 300 units of PVC windows every day, as well as countless custom executive and dimensional variations.

The **Lannach** plant produces the wood/aluminium door and window frames. Alongside the production of window systems, this site produces the special STUDIO XL production, for custom wood/aluminium architectonic solutions that are larger than the standard sizes.

Even though it has a considerable European profile, Internorm loves to stress the fact that it is part of the Austrian economic panorama. “We are a company operating internationally, but our high quality products are produced exclusively in Austria”, states one of the owners, Christian Klinger.

The excellent collaboration with **SCM** has lasted over 22 years. In **1995** they installed the first **large integrated line, an SCM System 5**, to meet the growing production in the standard wooden windows sector. This initial investment was followed by a Windor 50 angular work centre and a Routronic CNC router, for the production of special constructions (special shaped windows) as well as a machine for rebating and a Superset 23 throughfeed moulder. The last four machines are still operational today, bearing witness to the quality of SCM’s products. In 2001 and 2003 there were further integrations with two new Superset and Topset XL throughfeed moulders.

In **2011** the company invested in a complex **high performance integrated line, an SCM System 8C**, to meet the future requests not only in terms of quantity, but also quality.
With the introduction of a new system of lift and slide doors in 2013 it purchased an **electronic Topset XL throughfeed moulder** with 9 spindles, to make frames up to 6 metres long.
For the HF410 windows system, developed last year, the Lannach plant added a **new Topset XL electronic throughfeed moulder** with 11 spindles, a **DMC System T7 wide belt sander** and an **Accord 40 FX work centre with automatic table**.
DMC System is fitted with seven machining units: thanks to its modular structure it can provide solutions for every production requirement in terms of calibrating, sanding and structuring. In particular, thanks to the multi-direction crown wheel unit, excellent levels of structured and closed pore finish can be achieved on windows.
The Internorm plants also feature some of SCM’s classic machines that have marked the history of the company and that have always supported the workshop work of this leading manufacturer of doors and windows.

Automatic throughfeed moulders Topset XL integrated in the System 8 line

CNC machining centre Accord 40 FX for the HF410 window system

MC FRANCE
A NEW PLANT
WITH STATE OF THE ART SOLUTIONS FOR DOORS AND WINDOWS

Franck Rostand,
MC France general manager.

MC France has modernised the whole production process with the inauguration of the new Cugand plant (department 85 – Vendée), which has a new SCM line for doors and window frames. This investment of over 3 million euro has resulted in excellent results in terms of highly flexible productivity and volumes.

After 16 months of work and more than 28 million euro in investments the new plant of the specialist and market leader in wood-aluminium doors and windows is now operational. Inaugurated in 2014 it includes a 25,000 sqm plant for the production of front doors, sliding doors and windows, windows, shaped doors and windows, glass doors and continuous facades. High level technological solutions have been installed, such as the SCM door and window frame line, that fully replaces the previous industrial setup: *"The new production site has been fitted only with new machines, a new production process and a new computer system developed in-house by MC France, inspired from the knowhow of the parent Liébot group"*, explains Antoine Soulard, MC France's industrial manager. The beating heart of the factory is the SCM production line, which has been fully custom designed. "After a series of tests carried out in Italy, and the shipment to the MC Frances site, the line began producing in September 2013, with an installation period of 3 months", explains Claudio Cristalli, SCM product manager in France.

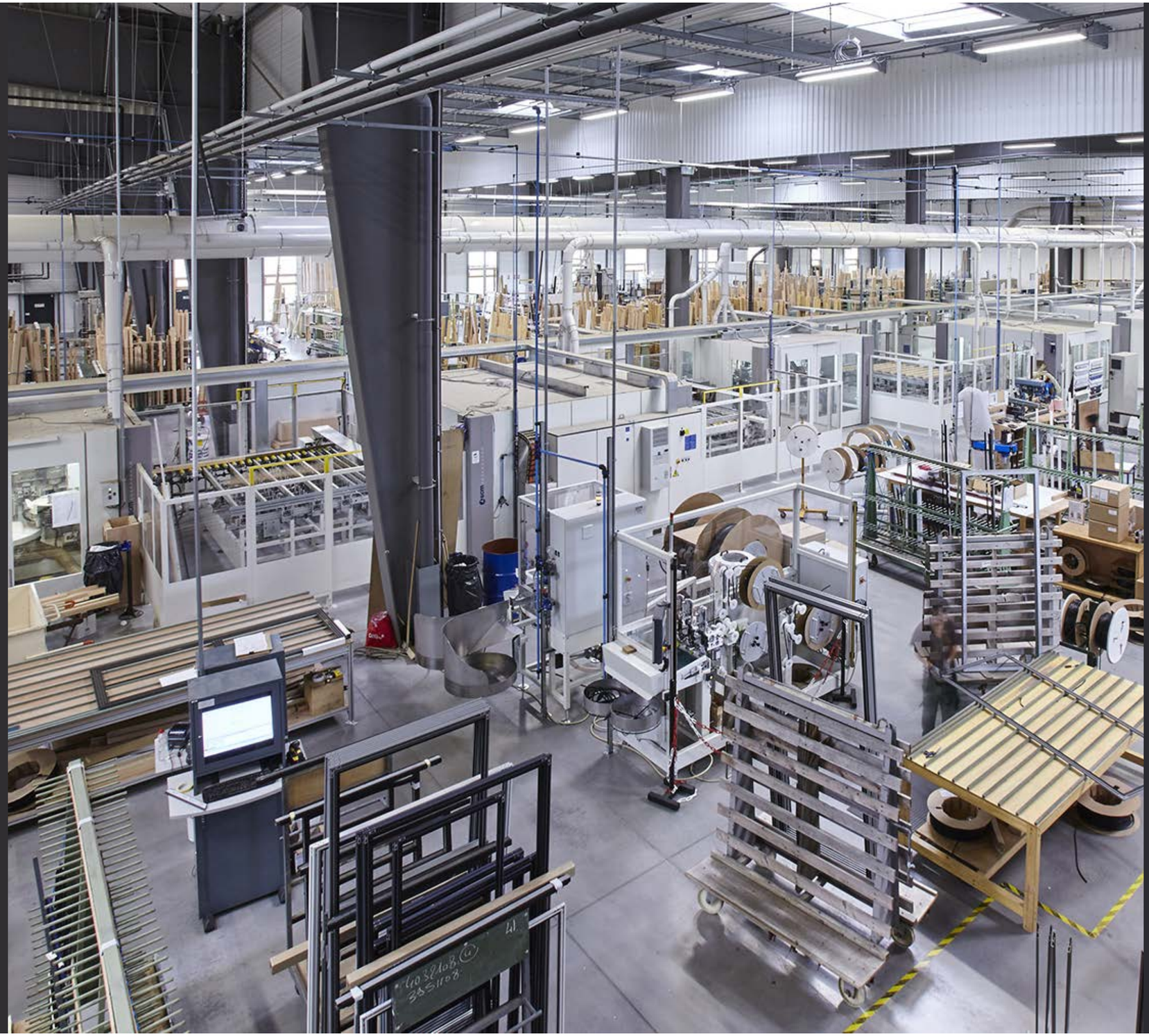
Machining with the Scm System 8C line

Today all the PEFC certified French pine and oak doors and windows are produced on this automated line that measures more than 60 metres. *"Only two operators and one supervisor are involved on this line"*, continues Antoine Soulard. *"A visual check is performed before the sections enter the line, in order to reject any wood with possible defects"*. Subsequently the squares move towards a throughfeed moulder where the two sides and the upper part are machined. The second phase, tenoning, is performed by two machines: a squaring unit that machines the left side head of the pieces, which then move to a second squaring unit, that performs the same operation on the right side. This is followed by two work centres for drilling and routing, used to assemble the hardware, and then the profiling. In this case too, two machines profile the right and left side. The last operation performed by the line is the laser marking of a code used to identify every machined piece after the painting phase.

Optimisation of the materials

At the line outfeed the second operator performs a quality control on the machined elements, checking their length and rejecting any with defects. The elements that pass the quality check are treated with IFH primer (only the pine) before reaching the finishing line. This is followed by the assembly, the glass is glued and the aluminium coating is positioned. All the machined elements are placed on a pallet and stored in a closed storehouse heated with wooden shavings from the machining operations. The boiler is used for the heating system and for the drying and finishing system. An ecological solution to optimise the raw material: wood!

Text and pictures: Bois Mag



Routing and drilling centre Fleximat in the System 8C line integrated

Loading and unloading area of window elements in the System 8C line integrated

SHEPLEY EXPAND WITH SCM ACCORD

SCM Group UK has commissioned the installation of a new Accord 25 FX CNC machining centre for Shepley – one of the UK's leading fabricators of PVCu windows and composite doors.

Over the years Shepley has grown to become one of the largest fabricators of Rehau windows and composite doors in the UK. The company has received a number of industry awards and in 2016, their solid sales growth together with excellent financial performance was recognised by both Plimsoll and the London Stock Exchange Group; receiving a Plimsoll Outstanding Company of 2016 award, and being named as one of the top 1000 companies to inspire Britain has placed a seal of excellence on the company.

From their company headquarters and manufacturing base in Dukinfield, near Manchester, Shepley supplies its high quality products to a nationwide customer base of commercial and trade installers. In 2016, as well as winning awards the company's continued success also necessitated an increase in its manufacturing capability. The decision was taken to expand into additional factory space, just around the corner, aptly named Shepley 2.

As director Tony Fry explained: "To satisfy the growing demand for our products we knew we had to increase our production space, but we also recognised the need to invest in state-of-the-art machinery to enable us to maintain our competitive edge." Although Shepley produces doors based on a range of composite blanks, the doors leaving the factory effectively represent an almost infinite range of bespoke designs. Orders for composite doors have to be processed as quickly as possible, and each order has a unique set of customer requirements for door furniture, as well as shape, size and position of glazing and letterbox apertures – so batch producing doors of the same design is not an option.

Along with fellow director Tim Walker, Tony Fry had researched the options

available and they agreed that a CNC machining centre was what they needed. *"We looked at the major manufacturers and we realised that SCM are the market leaders for CNC in the composite door market,"* says Tony, *"and we wanted a reliable machine, that would be easily maintained by the manufacturer, and where downtime was minimal."* To figure out which of the wide range of CNC models and options available from SCM Group would be right for Shepley, Tony met with SCM's area sales manager, Lee Gibson.

"At SCM we provide dedicated machining solutions for door and window manufacturers," says Lee Gibson, *"with the assurance of a top quality finish, high throughput, and flexible production."*

After meeting with Tony to assess the company's requirements, Lee Gibson submitted a proposal to supply and install an SCM Accord 25 FX with specifications tailored to handle Shepley's production criteria. The Accord 25 FX is designed specifically to fulfil the demanding requirements of small to medium-sized workshops, and the high-tech performance with intuitive, user-friendly operation, provides the flexibility that Shepley demanded.

The Accord 25 FX can be specified in a wide range of standard working areas up to a maximum of 6360mm x 1680mm, with the mobile gantry allowing precision machining across the entire bed. Shepley opted for an 'X-Y' machining area of 3680mm x 1380mm, equipped with 6 aluminium support bars which are manually and independently positioned along the 'X' axis – sliding on two ground side guides with recirculating ball bearings. Door blanks are held in position with a combination of adjustable suction cups that are positioned and fixed on the support bars to suit the specific door design being machined.

Xilog Maestro software on the control unit

The machining head, with 3 interpolating axes, is fixed directly to the mobile gantry and equipped with a 12kW 'high speed' electrospindle, capable of rotation speeds from 600 to 24,000rpm, and a quick release HSK-63F tool holder. In addition, the Accord 25 FX installed at Shepley is equipped with a horizontal routing unit which machines lock grooves on the front edge and seats for hinges on the reverse edge.

Programming is facilitated by the Xilog MAESTRO CAD/CAM software suite, developed by SCM, for use on a Windows® platform. With 3-dimensional graphics, designs are easily managed by the operator from the standard console control unit. Tony Fry added: *"From the outset we wanted the flexibility to produce machining programs in-house. Now, with the training provided by SCM, we are able to program our own designs, switch programs on the fly, and retain total control of our door production."*

Shepley's specification also included a 'TecPad' – a handheld 7" touch screen remote control unit which provides truly mobile control of electrospindle rotation speed and speed of axes adjustment – allowing constant monitoring of progress throughout machining operations. Operator safety at Shepley is ensured by the installation of horizontal photocells, fitted around the machine perimeter, which cut machine speed to from to 25m/min if the operator steps within a metre of the machine.

Horizontal routing unit machines door edges for hinge seats and locks.

SCM Tecpad mobile consolle to keep a close check on machining operations

BINDERHOLZ (AUSTRIA)
FAL (ITALY)
CMF GREENTECH (ITALY)
LIGNOTREND (GERMANY)

05 TIMBER FRAME AND NEW MATERIALS BUILDING

BINDERHOLZ: SIX UP'S **THROUGH AND THROUGH**

from the left: Luciano Tagliaferri (SCM), Thomas Aigner (Binderholz), Gianni Franchini (SCM) Markus Aigner (Binderholz)

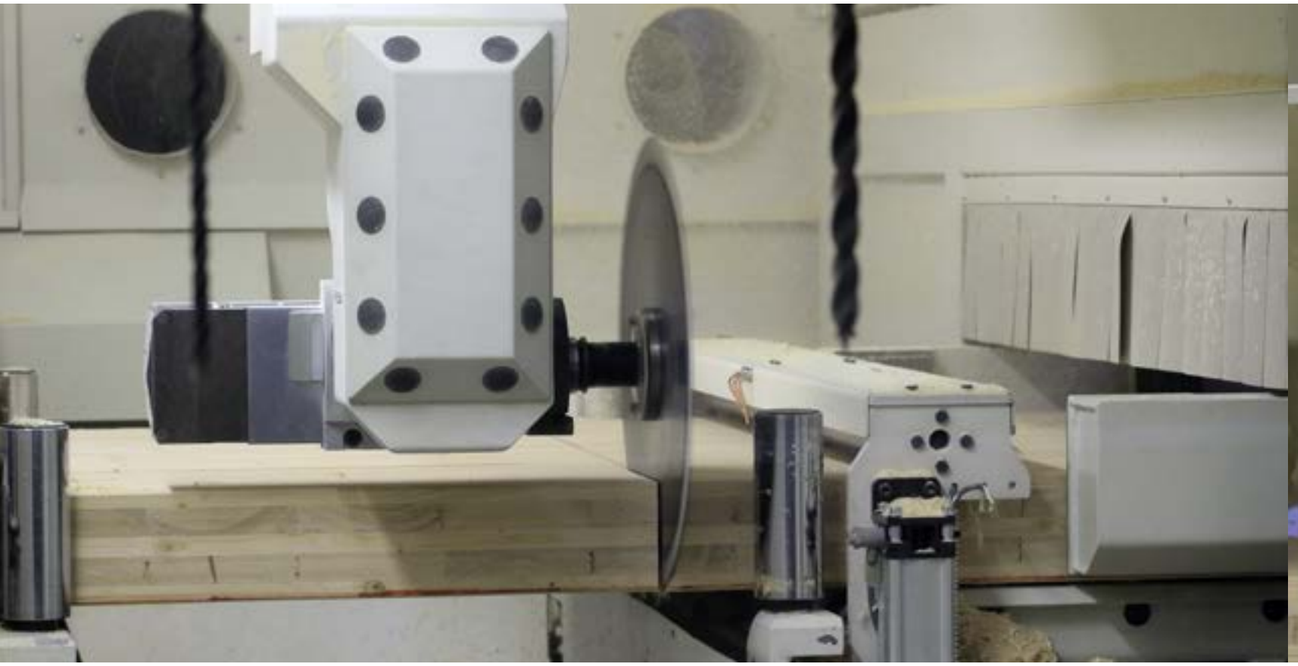
We will be discussing timber-frame construction techniques. And in particular, cross-laminated timber as a potential construction material of the future?

TIMBER FRAME AND NEW MATERIALS BUILDING

BINDERHOLZ (AUSTRIA)

A model for professional implementation is the automatic nesting technology that the Austrian company Binderholz Bausysteme GmbH has adopted by installing several six-axis CNC-controlled "Oikos" machining centres by SCM. The Binderholz Group, with its five facilities in Austria, two in Germany and two in Finland, is committed daily to demonstrating its advanced expertise in traditional timber construction techniques and in cutting-edge, highly automated production methods. A total of 1.420 employees manufacture a broad range of solid wood products, including lumber, planed wood, profiled timber, glued laminated timber, single-ply and multi-ply solid wood panels, and cross-laminated timber as well as biofuels. In particular, the company's managers confer the utmost importance to constantly improving production - both creatively and through innovation. This is true both for the materials used and for the smart and flexible production techniques which are also crucial for keeping up with future trends in the BBS sector.

In this regard, Thomas Aigner, executive and plant manager at the production site in Unternberg says: "Our cross-laminated timber elements must meet customer demands, ensuring absolute precision and the utmost degree of readiness



for assembly and transfer when they leave the factory. In particular, because during assembly at the construction site, it is essential to ensure the sturdy mounting of the accurately fitting parts as well as the extensive finishing of the connection and structural details. Due to the complexity of the timber framing, this requires that we are able to machine ready-to-use wall, ceiling and roof elements at the factory. All this must be done in a single pass and all around on all six sides, with all the necessary tools that are already assembled. And, of course, possibly 24 hours a day, seven days a week. It is also essential that the operation of the machines should be as simple as possible, since all of the time-consuming or complicated programming work has already been done in advance when preparing the work. This means that by using a PLC-based simulation software specially developed by SCM the components are modelled to ensure trouble-free continuous operation of the plant. Thus, less specialised knowledge is required to operate the machines."

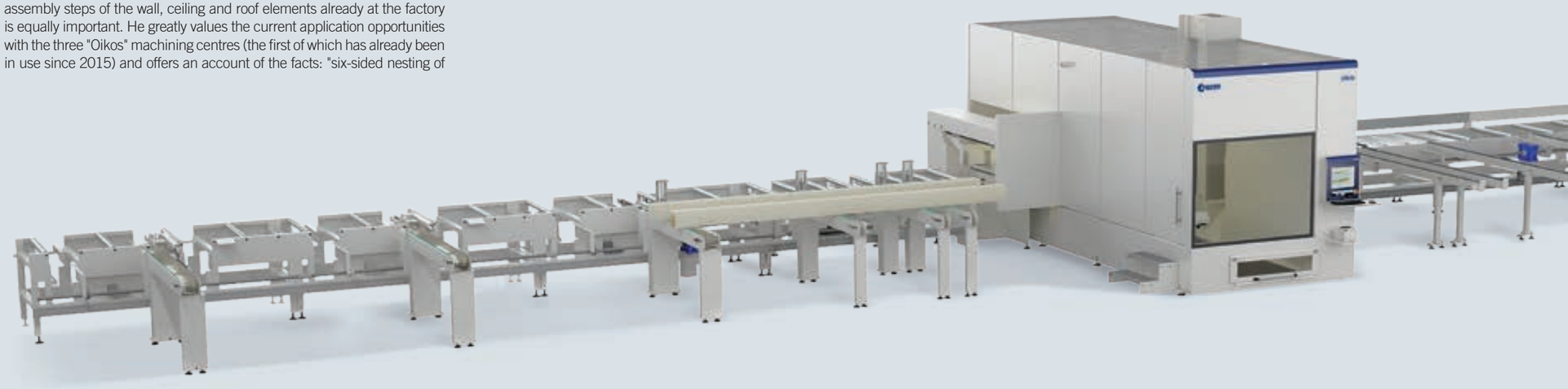
As mentioned above, rather than relying "only" pure timber framing, state-of-the-art nesting technology is now used. A perfect synergy for all those involved. During the cycle, **the three "Oikos" 6-axis machining centres installed at the factory carry out complete processing of all the BBS-125 elements on all six sides of the workpiece**. The working widths range from 50 mm to 1,250 mm, the working heights from 20 mm to 300 mm and lengths of 550 mm to 13,500 mm can be machined. The all-round machining allows not having to rotate or turn the parts and just one operator is enough to operate the machining centre as well as to tool and unload it. There is no need for the operator to be a CNC specialist, because the programming takes place in the process planning stage. The high-speed 25-kW spindle which can reach continuous speeds of up to 16,000 rpm and automatic access to all of the ready-for-use machining tools present in the machine's tool magazine provide for 100%-reliable nesting. The objects are shown in 3D so that every single assembly and joining detail on the workpiece is known at the same time and considered during machining.

In particular, the five-axis unit, combined with the sixth sliding axis for all sawing, trimming and drilling operations from below (saw blade diameter up to 600 mm) for any saw cut, together with automatic tool changing, provide for the extraordinary performance of this innovative processing technology. **All of the well-known advantages of six-axis technology applied to CNC machining centres can be exploited effectively for almost unlimited machining options.** The tools already available in the tool rack machine all structural components at any angle and in any position thanks to the interpolating axis movements. Especially the sawing at any angle and in all directions offers remarkable performance features and absolutely new perspectives. Therefore, this means flexible angle cuts on five axes as well as the opportunity to work with the saw blade in almost any position. The fully automated layering and the removal options with forklift truck or crane are also important for cost-effective operation. Thanks to the all-round machining, there is no need to rotate or turn the piece.

According to Thomas Aigner, the ability to reliably calculate the following assembly steps of the wall, ceiling and roof elements already at the factory is equally important. He greatly values the current application opportunities with the three "Oikos" machining centres (the first of which has already been in use since 2015) and offers an account of the facts: "six-sided nesting of the elements with high-speed rotating tools that are already present in the changer and always ready for use. All the time-consuming programming work and necessary changes are done by the specialists in the process planning phase. **The machining processes are easy to operate by the worker at the machine and always controllable.**"

A successful partnership between Binderholz and SCM, based on the both companies reliability and exclusive know-how.

Text by Rudolf Bartl



FAL
FLEXIBILITY AND PRODUCTION EFFICIENCY

from the left: Tommaso Martini, SCM machining centres for timber constructions BU Manager; Paolo Forza, Scm area manager; Alessandro Chistè, FAL Managing Partner and Technical Director; Jablan Rajiv SCM area manager.

FAL, a leading producer of wood components, introduces on its production floor a new Oikos machining centre.

FAL, an acronym which stands for Fabbrica Avvolgibili Lavis (or 'rolling shutters factory of Lavis'), is located in Lavis, near Trento. However, it no longer deals with shutters but focuses on wood lamella beams and X-LAM walls. Ezio Brugnera and Guglielmo Chistè founded the company back in 1962, first just selling and only later producing wood shutters. In 1979, FAL expanded its product line to include wood lamella beams. Once the production of shutters has been dropped – due to unsustainable competition with PVC shutters – FAL began producing prismatic matchboards for floors and cladding, machining roof trusses, planing construction boards and treating machined wood, all without neglecting its important marketing activities.
In the early 1990s, Alessandro Chistè took over the company and launched an investment and technological upgrading programme that still continues today.

Oikos machining centre

We actually travelled to Lavis just to see the Routech Oikos machining centre – which has been installed and commissioned recently – in action. We met Alessandro Fondriest, General Manager, and Alessandro Chistè, Managing Partner and Technical Director. Accompanying us were Tommaso Martini, SCM Machining Centres Carpentry Unit Manager, and Paolo Forza, SCM Product Area Manager.
We asked Tommaso Martini to comment on the current situation of the wooden construction market, which has shown a general positive trend and has seen the most dynamic and better positioned companies gain solid advantage which was immediately translated into greater willingness to invest in technology.
"The current market," said Martini, *"is in solid growth, especially with regard*

to X-LAM structures. Companies in our industry demand high-tech solutions that combine precision with flexibility – because the design phase these days is wide open and with very few limits set on it – and machines need to be capable of responding flexibly to such needs."

And Alessandro Fondriest, FAL General Manager, added: *"We are leaving behind traditional constructions and follow the market, where diverse needs coexist. Our challenge is to convince the final customer to choose wood for constructions, for extra stories and for extensions. The tragic earthquake last year in central Italy resulted in growing attention to, interest in and awareness of the potential in this industry sector.*
I can confirm that ***market needs are becoming more and more complex, also regarding aesthetics****. The final customer asks for visible interior roof trusses, in added stories, that are elegant and finely-finished as decorative elements.* ***The machine ends up replacing the manual work of a carpenter to ensure the required results****."*
"In this regard," Tommaso Martini asserted, *"all phases of shipping and handling the trusses are important in ensuring maximum care and preventing any damage. Machining strategies are important as well: having a spindle that can handle different tools according to required rotations and strategies helps you get the finest finishing quality."*

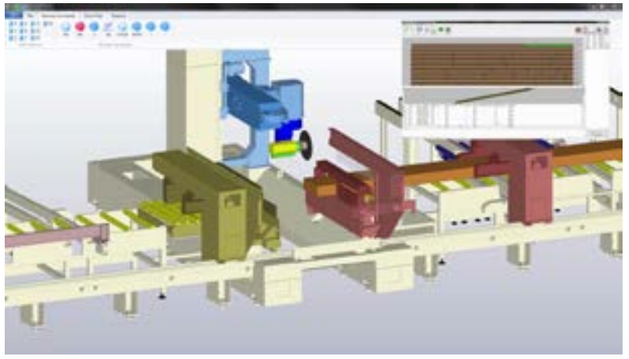
"This is the first ***Oikos*** *machining centre to be installed at FAL, for processing walls and beams up to 1.250 millimetres wide,"* explained Paolo Forza. *"It is* ***extremely flexible and comes with an electro-spindle equipped with an on-board tool changer that allows it****, thanks to its geometry,* ***to machine all parts of the workpiece without needing to turn it around****. This of course leads to greater machining precision. Beam loading and positioning systems are based on the concept of centring it, which in turn provides greater precision.*

TIMBER FRAME AND NEW MATERIALS BUILDING - FAL (ITALY)

The machine also comes with a laser system (mounted on the spindle) that reads in real time and at every instant the actual dimension of the workpiece; this helps solve problems caused by incorrect or inconstant measuring of beam dimensions. Machined workpieces (especially dovetail joints) will always have the same size thanks to this innovative system.
It's a flexible machine which, with its various accessories, can handle any type of machining – all controlled by our software based on the BTL standard, a commonly used free standard that allows processing data from any source and thus can instantly transform a design plan into a machine programme. This is true for processing both beams and walls."
Tommaso Martini continued: *"Another valuable feature of the Routech machining centre is its nesting capabilities, which allow the creation of various shapes from single panels that can then be used individually."*

And Alessandro Chistè added: *"What we have appreciated the most were the machine's precision, flexibility and versatility. Also important to us was the easy and fast availability of service and problem solving whenever needed: in other words, the tight collaboration between company and customer."*
Paolo Forza added, for our benefit, a few more details regarding the collaboration between FAL and SCM: *"FAL needed a flexible and high-performance machine and we had an opportunity to see such a machine in action at Routech and at another customer that had been using it already. This confirmed for us the fact that the market was changing and now demanded ever more flexible, high-performance machines with a competitive price-quality ratio. The tests we ran were more than satisfactory and today FAL operates using Italian technology, demonstrating it is a large group that is as good as its German competitors."*
"It is not surprising," added Tommaso Martini, *"that we are now vigorously expanding into international markets. In fact, the markets are growing all around the world, not just in Central Europe. The potential in the Oikos machining centre is great and most of it is still to be discovered, mostly through increased use of software."* *"In this context,"* responded Forza, *"we are working on such applications with great commitment, having already hired a carpenter who has high software proficiency and thus can improve machine software applications."* *"Today it is important,"* concluded Alessandro Chistè, *"to be aware of the increasingly more complex modelling required by the market and the growing demand for combinations of wood, metal and other materials. And the Routech machining centres allow us to fully satisfy every new request."*

Text and photos by Pietro Ferrari for Struttura Legno

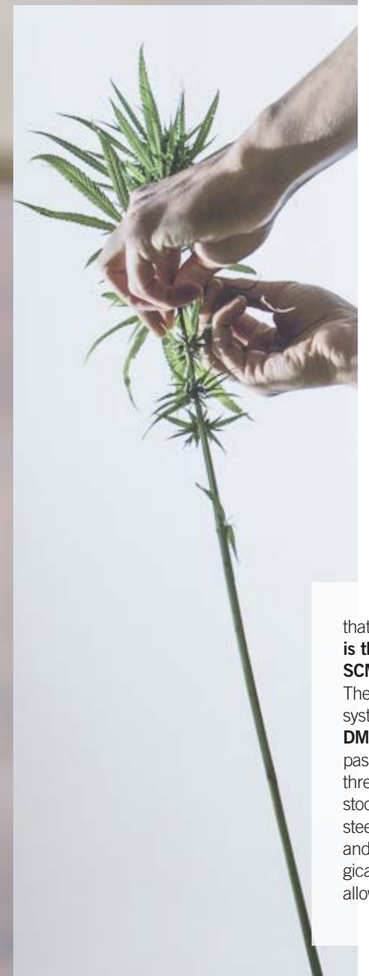


CMF GREENTECH GREEN POWER

New materials for buildings and furniture

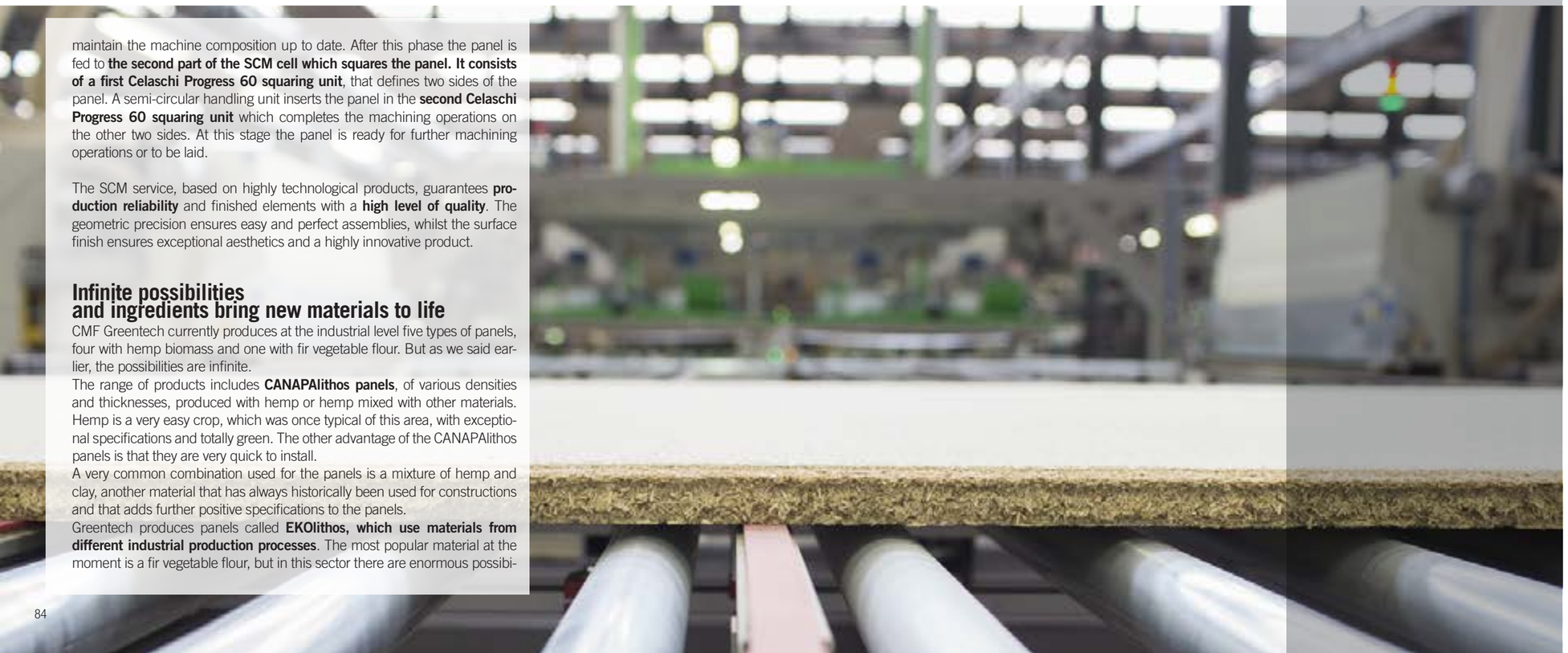
How will your new home and your new furniture be built? They have been created with a new, and patented, process and materials which allows you to choose the ingredients through various 'recipes'. What all the various recipes have in common is that the materials that you have chosen are ecological, resistant to fire and water, they insulate you from the heat, cold and noise and they regulate the humidity of the living space, as well as being ideal for use in earthquake-proof constructions. In certain cases they are made of completely natural materials. Other recipes allow you to contribute to improving the environment and your quality of life, because they use waste from the industrial production which is recycled in inert substances that are non-harmful for man and the environment and reused in a virtuous cycle of the recycling economy. All these materials are oil free, therefore completely independent of the oil production process and are formaldehyde-free. This small miracle is taking place at CMF Greentech, in Cavezzo, close to Modena.

YOUR HEMP HOUSE



The company is part of CMF Technology SpA in Pavullo, which has produced systems and machinery as well as automation for the ceramics industry for 40 years. It all began in 2008 when the **CMF management decided to start a green project**. The objective given to the researchers was simple and at the same time huge: "finding totally ecological materials and production process". Much is due to fine tuning the **"royal jelly", an ecological binder used to create a material, which is subsequently transformed in panels, by amalgamating natural products as well as industrial waste**. This inspired the idea of creating a system for producing **materials for green housing** and interior design in Cavezzo, one of the hardest hit towns by the May 2012 earthquake. The plant was officially inaugurated in November 2016.
Currently the low emission production counts on five employees and it has been designed to guarantee sustainable energy and to protect the local territory. Thanks to the high level of automation the whole production cycle could be managed by remote control.

CMF Greentech has two divisions: **Greenbuilding** produces materials for green housing and **Greendesign** that creates and promotes materials used to produce natural, sustainable and highly striking furniture and interior design.
A visit to the CMF Greentech plant is like taking a journey to the near future. The process begins with an external hopper that serves five silos, where the materials used in the process are stored. From the silos the hemp, wheat, industrial production waste and everything that the "chef" can think of are automatically sent to be mixed with the royal jelly. The product is laid on rollers that feed the panels to the presses and then the drying unit. **The unfinished panel is then sent to a cell for calibration, sanding and squaring, which is where the SCM technology comes in**.
The totally integrated cell which operates without operators, is assisted by handling systems created specifically by CMF. The **first part of the SCM cell** is produced by **DMC System, the heavy duty work centre for calibrating and sanding**, in a single passage, both sides of the panels with a width up to 2200 mm. The machine has three upper and lower roller machining units. The first two units perform large stock removals and machine the panel to the desired thickness with the grooved steel roller and the high power motors, up to 75 kw per unit. The third unit sands and finishes the surface of the panel. DMC System, thanks to a highly technological modular structure, allows for the installation of a fourth machining unit, to allow the machine to be aligned to the changing production requirements and to



maintain the machine composition up to date. After this phase the panel is fed to **the second part of the SCM cell which squares the panel. It consists of a first Celaschi Progress 60 squaring unit**, that defines two sides of the panel. A semi-circular handling unit inserts the panel in the **second Celaschi Progress 60 squaring unit** which completes the machining operations on the other two sides. At this stage the panel is ready for further machining operations or to be laid.

The SCM service, based on highly technological products, guarantees **production reliability** and finished elements with a **high level of quality**. The geometric precision ensures easy and perfect assemblies, whilst the surface finish ensures exceptional aesthetics and a highly innovative product.

Infinite possibilities and ingredients bring new materials to life

CMF Greentech currently produces at the industrial level five types of panels, four with hemp biomass and one with fir vegetable flour. But as we said earlier, the possibilities are infinite.
The range of products includes **CANAPAlithos panels**, of various densities and thicknesses, produced with hemp or hemp mixed with other materials. Hemp is a very easy crop, which was once typical of this area, with exceptional specifications and totally green. The other advantage of the CANAPAlithos panels is that they are very quick to install.
A very common combination used for the panels is a mixture of hemp and clay, another material that has always historically been used for constructions and that adds further positive specifications to the panels.
Greentech produces panels called **EKOlithos, which use materials from different industrial production processes**. The most popular material at the moment is a fir vegetable flour, but in this sector there are enormous possibilities. The Greentech technology has already shown that it can use different biomasses: wheat straw, rice chaff, maize, olive stone, as well machining waste or sub product debris such as polyurethane dust from scrapping fridges, ceramic production waste, paper mill sludge, fibreglass, mineral waste such as quartz, even small parts of PVC from cables that protect copper wires, which are used as striking decorative elements in the panels. We are currently researching an extremely interesting waste management project with an important company of the sector, to create panels out of coffee grounds to furnish the shops of the chain. These panels, as opposed to the hemp and hemp-clay panels, can be produced at high densities and provide an alternative to HPL plastic laminate panels.

CMF Greentech is also extremely focused on the aesthetic, sensorial and tactile aspect of its production. Many products are available in coloured versions to broaden the palette for designers.
Ecological products, materials with a soul, recycling, sustainability, technology, automation and digital interaction: key words of the future, but which are already the present of CMF Greentech.

Photos by Immaginariamente

LIGNOTREND (GERMANY)

Ralph Eckert, Lignotrend General Manager

LIGNOTREND: MAGIC WOODS

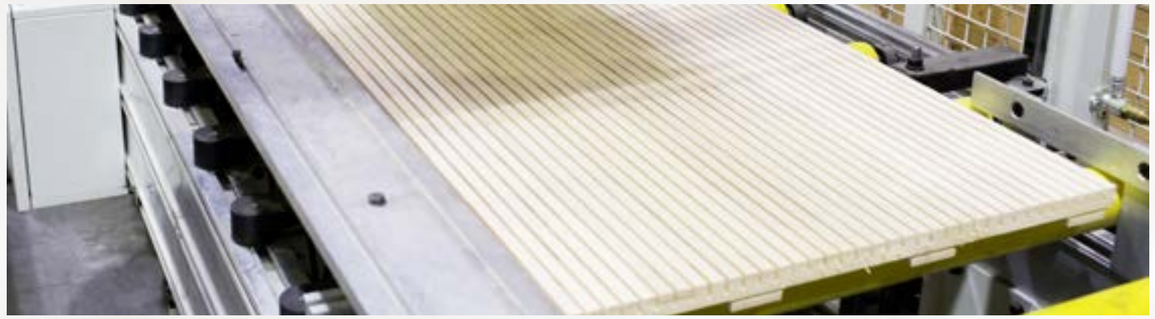
Right in the middle of the Black Forest Lignotrend produces high quality wooden construction components. The famous Goûter shelter, for example, was built at a nearly 4,000 metre altitude on Mont Blanc using the reliable materials provided by the German company. An important automated "Made in SCM" line has just been installed and commissioned at the company's plant for the production of acoustic components.

Welcome to the "magic woods". This may very well be a possible fanciful and captivating translation of the Bannholz place name. Indeed, Lignotrend is located in Weilheim-Bannholz, in the middle of the Black Forest. The German company produces all types of wood lamellae and acoustic wood panels for the construction of walls and ceilings. Constructing wooden buildings is a centuries-old tradition in Central Europe, and Lignotrend, founded in 1992, has successfully combined this tradition with latest-generation technology of the highest quality.
The company's production plant is actually a huge showroom displaying its complete range of products. The plant is built entirely of wood, surrounded and crossed by scenic walkways that allow you to 'inspect' the floor areas set for the machines.

And Lignotrend is naturally familiar with working at high altitudes, as it built the Goûter shelter, 3,835 metres above sea level on Mont Blanc. It is one of many superb buildings constructed with Lignotrend components, which are considered the most advanced among wooden building products. All across Europe there are countless buildings constructed using Lignotrend materials. From the day the company entered the market and through today a large share of its revenues has come from exports.
Projects where the company's products have been used include public buildings and private residences, whose architects and designers chose the Lignotrend products as the most suitable for realising their dream buildings. The Weilheim-Bannholz plant produces CLT beams, walls, panels, floors and everything else required for wood constructions. There are over 1,000 items on

the product list, all can be produced using different types of wood – spruce, fir, oak, beech, etc.
The company was founded by Werner Eckert, a staunch supporter of the use of high-quality wood as construction material. Eckert combined his conviction with the use of technological innovations, producing components of exceptional mechanical, isolating, fireproofing and soundproofing qualities. These products are the results of collaborating with the finest research centres. Lingnotrend is a solidly family-run business. Indeed, the founder's son, Ralph, who grew up as a teenager in the family business, is now the company's CEO, and he is the one who guided us in a tour of a company that is deeply rooted in the community that surrounds it. Among the people celebrating the company's 25th anniversary this year were, besides all employees and family members, all the town inhabitants amounting to thousands of celebrants all gathered in the plant in a single day.

A company of such level has naturally kept good ties with the Italian high-tech woodworking industry.
From the beginning the company used **Celaschi** machines, the **world-class technological**



leaders, for its **panel squaring processes**. A big **SCM Group production line for processing acoustic panels and wooden house cladding** has most recently become operational.
The line consists of an automated loading and unloading system, the **Mahros Climber; three Celaschi Progress 90** squaring-tenoning machines; and four **DMC T3 sanding and finishing systems**.

It is a complete line, put together to meet the needs of Lignotrend using standard reliable machines, where the company panels are being squared and profiled by the Celaschi machines. The DMC solutions calibrate and sand panels on both sides, a delicate operation considering the particular shape of these panels, and give panels' upper surfaces a customised texture according to the desired look. Upon completion of the production cycle, an SCM buffer provides improved management of panel unloading. The entire line, which is fully automated, is run and controlled by the **Maestro Watch** software system.

When running in full production capacity, Lignotrend will use the line on three shifts daily, which explains why high productivity was required.

In fact, Lignotrend produces 1.5 residential houses a day, houses which can be up to five stories tall.
This also explains why the German company turned to SCM Group, after having carefully analysed other possible solutions available on the market. **The choice fell on SCM because it was the only company that could provide a fully integrated solution to run the entire production cycle**. But mostly because the high level of machining quality provided by the SCM Solutions guaranteed that **the high quality standards set by Lignotrend** will always be met.
According to Ralph Eckert, the new "Made in SCM" line will allow Lignotrend to perform high precision panel machining and achieve greater production speed combined with high flexibility.
"The big market trend is to use spruce wood with knot-free acoustic panels, which we produce for XLAM constructions. This trend has grown over recent years and we have followed it with high-quality products. Today it has become our core business and main expertise," says Ralph Eckert. *"The benefits the new SCM line offers*

*us are **the high precision of its panel machining combined with its processing speed** which are both considerable and far greater than what we had before. With its production flexibility we can now produce different types of panels using a better manufacturing process while reducing production costs.*
***But quality remains the primary attraction** for us and was one of the key reasons we decided to buy the new SCM line. With the new system we can now offer a level of quality that had been impossible to achieve with our previous system."*

Now Lignotrend is ready to take up the new challenges posed by the market with SCM at its side.

SFORZI TEAK (ITALY)
DOMETIC SEITZ (SWEDEN)
MDP (FRANCE)

07 MARINE AND AUTOMOTIVE

SFORZI TEAK
TEAK ROOTS
ANCHORED TO THE SEA


Alessandro Sforzi

Alessandro Sforzi's splendid decks are the exclusive finishing touch to the most beautiful boats in the world. His is a true entrepreneurial story made in Italy, born and pursued with passion and with an enduring relationship with SCM. Sforzi's extremely high quality production is supported by state of the art technologies.

Alessandro Sforzi's **story is the paradigmatic story of Italian entrepreneurship.** A story shared by many other individuals in the post war years.
Sforzi has brought back to life this tradition in recent times in a surprising way. He refused a secure and safe position in the well-established family business and launched into a new sector, so that he could conquer his independence and transform his passion into his work.

It all began in Viareggio, when the young Alessandro, who had a strong passion for working with wood, started doing small jobs on boats. He was paid by the day and in dollars, which at the time was an extremely strong currency, so that he was able to build up a nest egg.
The family did the rest. His father was a sales agent with various warehouses, a showroom in Milan and a thriving business. When Alessandro explained to him that he didn't want to follow in his footsteps but wanted to dedicate himself seriously to building teak decks, his father gave him his blessing for this entrepreneurial adventure.

Having done the hardest part all he needed was the equipment to step up his work. That's when he chose SCM. **Alessandro began by buying his first SCM combination machine and from that day his relationship with the machines built in Rimini continued with great satisfaction.**

The excellent results led to Sforzi Teak, a company with orders from across the word, which has worked and works with the most important shipyards, such as Rossi Navi, Perini, Viareggio Superyacht and San Lorenzo. Well-known individuals have trodden these sumptuous decks, which thanks to the exotic woods have become the symbol of high quality boats.
Even during the darkest period of the Italian boat industry, crushed by the economic crisis, misguided laws and a negative climate towards boats which were equivocally deemed only a luxury item, Sforzi Teak continued to produce with excellent results, also in economic terms.

An extremely high quality production can only be supported by machines with state of the art technology. Alessandro Sforzi has no doubts about this: all his machines are made by SCM, in particular he has a **strong relationship with the *L'invincibile*** brand, the historical name which is the top of the range of the Rimini based company's production.
The relationship between Sforzi's craftsmanship and the machines is explained very clearly by Sforzi himself: *"I have always invested a great deal in new technologies, because I believe that using state of the art machines opens new business opportunities.* ***Often there is the risk of losing work due to inadequate technological support****".*

Thanks to the use of technologically advanced machines Sforzi has been able to ensure a further improvement for his company: *"We used to buy readymade slats for the teak decks. Now we buy the unfinished wood and produce the slats ourselves, customising sizes and thicknesses. This has resulted in a substantial saving for us and it allows us to always have stock available, so that we can respond promptly to a client's customised requests. Using SCM machine ensures a great support because they fully meet our requirements and they allow us to optimise the production and reduce waste to a minimum.*

Sforzi Teack facility in Viareggio

*This is key, seeing as teak is a fine and expensive wood. Another advantage of the **L'invncibile** range is that it allows me to process different production programs with the software, so that we can produce a high number of customised slats by simply calling up the program".* And, almost to prove a point, Alessandro explained that he always keeps an eye on SCM's production, to see which machine could help him in his work. Lately he has been looking at the throughfeed moulder with quick tool change, which would let him cut and plane at the same time, to produce a finished slat. This could well be his next purchase.

Nothing is left to chance in the production if these by now legendary teak decks. The first stage consists of a team taking the full scale measurements (1:1) at the shipyard with a plywood relief, which are then used to create the plywood shapes that reproduce all the parts of the boat deck. In a laboratory the shapes are then used to reconstruct the deck. At this stage the slats are cut and laid on the deck which is identical to the deck of the future boat. The deck is then rubberised with the Silca (flexible polymer), the pieces numbered, and the whole deck is reassembled on the boat with millimetric precision.

Alessandro Sforzi has clear ideas about the relationship between man and machine: *"In our case, the work is divided in half: 50% man and 50% machine. This type of work will always maintain a considerable amount of craftsmanship, because each deck that we produce is different from the next, as we work with custom boats. The CNC machines will not be able to replace our work completely. But they certainly help us a great deal: for example with the CNC we produce plywood panels that we use to cover the fitted deck to ensure that the workers who are finishing the boat don't ruin it when walking across it. And naturally we put the name of our company on these panels too.*

Machined teak planks ready to be assembled

MARINE AND AUTOMOTIVE - SFORZI TEAK (ITALY)

Alessandro believes wholeheartedly in branding. In his company everything carries the Sforzi brand, from the splendid teak sign, to the uniforms and jackets of his team. Even the tools used are customised.
"It's only passion that pushes you to do these things", explains the teak wizard. "Everything that I have earned over the years I have re-invested in the company. It's always been my passion that has driven me".

Text by Marco Di Pietro

A boat deck preassembled at the Sforzi carpentry shop. The deck will then be partially dismantled, transported and reassembled aboard the boat.

L'nvincibile Ti7 shaper which, thanks to its precision and programmability, has greatly improved productivity at Sforzi Teak.

DOMETIC SEITZ (SWEDEN)

DOMETIC SEITZ: FOR A "MOBILE LIVING"

Mats Borg, production manager at Dometic Seitz in Tidaholm, in front of his newly installed machine.

Dometic Group is a global company, providing solutions for" mobile living" within the areas Climate, Hygiene, Sanitary and Food&Drink. The mission is making mobile life simple. The company group who 2015 had a turnover of 11 billion SEK, have appr. 8 000 employees and production in 22 countries.

One of the production plants is Dometic Seitz in Tidaholm; a company with a long history. As early as 1799 the former Tidaholms Bruk got ironworks privileges and started production of horse carriages. In the early 20th century the production switched to more effective vehicles and serial production of trucks started. When the Kreuger crash was a fact, the truck production was sold to Investor, headed by the Wallenberg family – and it is in fact here we find the origin of the Scania trucks.

FROM VEHICLES TO VEHICLE ACCESSORIES FOR A MOBILE LIFE STYLE

Nowadays there is no production of trucks in the plant in Tidaholm, but the step to the automotive industry is still short. Since 1964, Dometic Seitz in Tidaholm have produced car windows, sun roofs and doors to recreational vehicles and at the moment the production is booming. 800 000 windows are produced and installed here in one year.

-Right now we are picking market shares at the same time as we see an enormous large increase in demand, especially from the producers of campers. The increases in volume 2016 was so extensive, that we had to recruit 10 new employees. Parallel to this we also invested in a new CNC-milling machine, a Routech Ergon R400 TVN, from S.I.T., says production manager Mats Borg.

-When we decided on this investment, the reason was to be able to get rid of the weekend shifts, which we managed to do – during a shorter period. However, the continued strong development in volume means that we had to put in weekend shifts again to manage the production, says Mats Borg.

THOROUGHLY PROCUREMENT WORK

From Dometic's side, a thoroughly procurement was made before the investment. There were 3 potential suppliers of a new CNC-milling machine, who were able to leave quotes, but Mats Borg and his team was not satisfied with that. Admission of references and site visits at customers who already had similar machines in production, was an important part of the procurement work.

-Even if we have a relation with S.I.T. since earlier, and are satisfied with it, this is such a large investment that we really want to do a thoroughly procurement work. That is why we also wanted to visit other customers, to see how they had experienced both the startup, the dependability and the service level of the suppliers, says Mats.

Reduced material waste, but especially more units produced per kWh, was some important issues for Dometic, who has sustainability as one of their focus issues. But in the end it was the responsiveness together with the fact that the offer from S.I.T. was the one giving most value for money, that decided their choice. Also, both Mats Borg and Daniel Bergåker, process technician at Dometic Seitz, praises the response from S.I.T. both during the procurement process and the installation.

– They have showed an ability to really listen to us and give response to what we needed and was looking for, says Daniel Bergåker.

FULL PRODUCTION AFTER 2 WEEKS

– But what really impressed us, says Mats Borg, is the startup of the machine. I have never earlier experienced such an uncomplicated and secure commissioning of a new machine. The installation, done in less than 3 weeks, was managed by a couple of men. Already 2 weeks later we were up in full production. This is really impressive!

-As the responsible process technician I also appreciate that the AlphaCam program, also from S.I.T., which we use for the programming of the CNC milling machine, is so simple and self-instructive, says Daniel, and in the same breath he says that they really haven't had more than one small malfunction since the startup. A problem which was quickly and simply solved over the phone in less than 30 minutes.

A pain free installation, an improved dependability and increased production rate – yes, you cannot mistake that Dometic are satisfied with their new Routech Ergon.

- We have a continued strong increase in volume, so in spite of efficiency improvements with the new CNC milling machine, we have to reintroduce weekend shift to manage the production, says Mats Borg. So I don't think it is impossible that there will be another Routech Ergon R400 TVN from S.I.T. here in the future, Mats Borg concludes.

S·I·T
SVENSK INNOVATIV TRÄTEKNIK

S.I.T. is located in the heart of the Swedish wood industry in the south of Sweden. We offer machinery and production solutions to the entire wood industry for the small joinery as well as the big industry.

www.s-i-t.se

Ergon R400 TVN is a special solution designed and produced in the Routech plant of the SCM.
It is a work centre with double bar table, each one with a useful area of 2850x1850 mm.
Specific hold-down equipment ensure the perfect finishing quality of the client's pieces: car windows, in specially shaped methacrylate.
On each table the routing and drilling operations are carried out by a 5-axes machining unit. Therefore two machining units in total that can operate in parallel or independently, to fulfil all productivity and flexibility requirements.

DOMETIC

MDP (FRANCE)

MDP
UNIQUELY FINISHED COMMERCIAL VEHICLES

In Nantes we visit a company specialised in fitting commercial vehicles. **MDP** has focussed in this sector with **6 SCM work centres**, purchased between 2004 and 2016. "After training as a joiner, I was looking for an idea to fulfil myself", explains Pascal Dabireau, company manager. "I therefore leased a part of my father's plant to develop a range of products to fit commercial vehicles. In 1990 I began the business and, after an initial period with some difficulties, everything worked out well…". After starting with a Renault Express, MDP now fits numerous brands of commercial vehicles and is a reference point for various car manufacturers (Renault, Ford, Opel, Nissan and Renault Trucks). *"The company works in shifts (in 3/8) and counts on an integrated design office"*, continues Pascal Dabireau. *"We employ 45 people and about a dozen temporary workers to fit 28,000 vehicles a year."*
Split between two sites, a few hundred metres from each other, the MDP production is manufactured just-in-time in order to limit stockpiling. *"We work with two days' notice and very tight deadlines, with only seven days from order to delivery. This is why we need an advanced, up to date and super-efficient machine inventory. Today the machines include integrated loading and unloading systems, that help us save time and space in our plants.*

We constantly follow the latest technical innovations to further optimise our production".

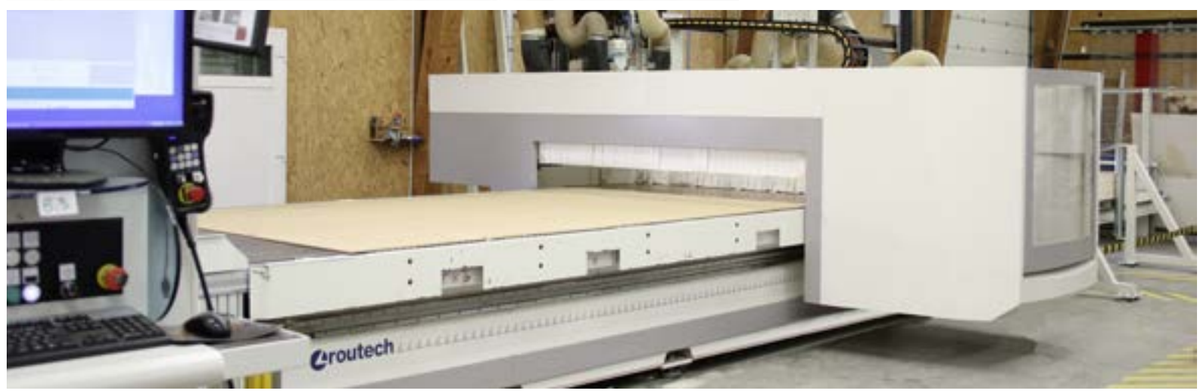
A constantly expanding machine stock

The pieces are machined exclusively on SCM work centres, including two new **Accord 30 NST** cells for nesting operations, purchased in 2016. *"We don't mass produce. The same plywood panel can be used for making parts for a Renault Kangoo and for a Peugeot Partner."* A flexibility that allows MDP to offer more than 8000 different pieces machined with a single software ("created by my brother") and to fit between 110 and 120 vehicles a day.

MDP does not simply machine the panels, it also finishes them by painting 100% of its production. *"We had this idea in 2010. Beforehand we installed unfinished panels in the finished vehicles, but the aesthetic results weren't optimum".* Once machined and painted the parts are fitted to reduce the operating times and allow a Kangoo to be fitted in "10 or 15 minutes". An attention to detail that has been the hallmark of the company's success, which enjoyed double digit growth in 2016 (12 million for MDP and 1.5 million for MDP finishing).

In 2017, MDP wants to maintain its growth with "at least +15% in turnover and new investments to complete the machine stock", in order to continue fitting with wood the commercial vehicles of its 3.500 customers.

Source: magazine Bois Mag



WOODONE (ITALY)

WIEHL, BRUNNER, PAHL (GERMANY)

CIAM (ITALY)

05

DESIGN

from the left: Markus Gallmetzer; Klaus Tavella; Gabriele Mingo (area manager SCM); Judith Muller; Stefano Sorarui.

WooDone: GLASSES MADE OF WOOD, FLOWERS AND ROCK

INSPIRED BY THE DOLOMITES AND CONSTRUCTED WITH SCM TECHNOLOGY

There is a classic mountain that is part of our collective imagination and a new surprising mountain made of technology, innovation and image. A new mountain that doesn't forget the strong traditional values but interprets them in a new modern and global way.
WooDone in Varna, a small village close to Bressanone, is one of the companies that represents this new idea of mountain, where the past is combined with modernity.

WooDone produces fashion glasses and accessories, all rigorously made of wood, with the possibility of coatings in other, always natural, materials, such as roses, violets, slate or Swarovski crystals.
The company began in 2009, when Thomas Oberegger and Klaus Tavella, two young entrepreneurs from the Alto Adige region of Italy, decided to try producing something original for the eyewear market. The initial idea was focused on producing glasses with wood by hand, inspired by the beauty of the Dolomites. For a few years there were various prototypes and tests, until they produced their first product in 2011: a set of frames produced with a single piece of wood. The die was cast: the company was setup and all the technological issues tied to the industrial production of an outwardly simple object, but complex to make, were explored. In 2012 the model was perfected and they started making inroads in the eyewear market and in 2016 they inaugurated the new 1200 square metre production site in Varna. The company currently has 28 employees with the nearby offices and showroom housed in an independent building, which is an harmonious blend of modernity and tradition.

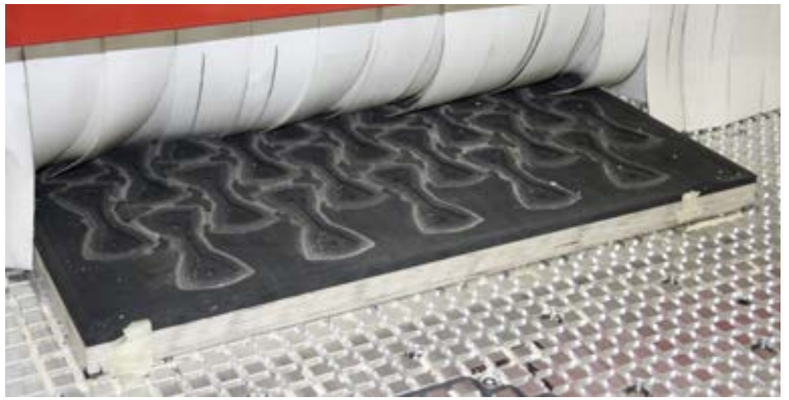
Currently **WooDone glasses can be found in over 3.500 shops of almost forty different countries and sales have passed 80,000 units.** In the most important shows of the sector this "made in South Tyrol" product is enjoying growing success and attention. The finished product is an exclusive pair of glasses of great value: in 2016 the German Olympic committee gave the medal winning athletes at the Rio Games, a pair of WooDone glasses, with the wood, which can be coloured, in the colours of the German flag.
Behind this idea there is a highly technological production structure, supported by a meticulous work carried out by hand, for parts that cannot be made by machines. The collaboration with the SCM Group was fundamental in this success.
Stefano Sorarui, whose surname reveals his Ladin roots, and Marus Gallmetzer, are in charge of the technical aspect of the work. They are both enthusiasts of technology applied to wood working and capable of inventing small and highly ingenious tools, to help the production. They are our hosts for the visit in the luminous and spotless production plant, typically found in **a "happy factory".**

The first stage of the production is the veneering which gives the glasses shape. Sheets of wood and other materials are selected, cut and joined. The structure of each pair of glasses is formed with at least eight layers that are glued, one by one, with natural products and then, with a press, curved and prepared in the shapes required for the machining. The profiles have three measurements and every type of combination of wood and other materials, which are then **transferred to the work centres, which are the soul of the production.** Here there is a five axes **SCM Accord 40 FXM**, where the previously prepared shape is routed and drilled to give the glasses their final shape.
The Accord is also used to remove the chamfer on the entire glasses, uniformly, thanks to two floating aggregates, that reduce the manual work downstream of the work centre.
The large work table is fully used to create other models of glasses, products without the preformed shape or other WooDone products.
Due to the specific use of the Accord work centre, the Maestro software has been fundamental. Stefano has adapted it very simply to the production requirements.
Next to the Accord we find a Pratix S12 work centre with **three axes** that is used to produce the nosepieces and other small parts of the frames, or to produce other WooDone objects that are being developed alongside the glasses. In this sector the only limit is the designer's imagination. For example they produce an ingenious Speck hand slicer or a heart shaped jewel box made with fragranced stone pine, and also wallets, bow ties, mobile phone cases, credit card holders, cigarette cases, lighter cases, USB flash sticks and so on.

Once the machining operations on the work centres has been completed the hinges and nosepieces are glued by hand.

The final stage of the production includes the laser marking of the glasses or objects. The finished pieces are then painted with natural products and subject to a strict quality control.
The flat surfaces of the other WooDone objects are sanded with a **SCM Sandya 600** that, thanks to its technological solutions, allows for many different uses in order to obtain exceptional finishes on each product.

The relationship between WooDone and SCM is extremely solid and has been fundamental in the development of the company. The Technical Manager Stefano Sorarui, had already successfully used SCM products in the past and when he began working with WooDone he didn't have any doubts. The support when purchasing the machines (in 2016 the company chose the new work centres and the sander) was essential, as well as the after sales service. SCM provided a work centre in order to start producing in-house, what was previously given to a subcontractor, whilst the company was waiting for the delivery of the Accord 40. In just a few days the Accord was fully operational thanks to the support of the SCM technicians.
WooDone also counts on a **surface planer, a thicknesser**, a **squaring saw**: all from **SCM's L'invincibile** range.
WooDone's technical department has clear ideas on the use of SCM technology. It is deemed fundamental to improve quality and increase and speed up the production, decreasing the manual work, which remains important for other phases, such as the selection of the materials, the joining of the wood, the curving of the shape of the glasses, the application of hinges and nosepieces and the final precision finishing.
The company is extremely ecologically aware. Waste of wood used for the veneering is reduced to a minimum and the production reject is burnt to heat the building. As far as the machines are concerned, great attention is given to reducing energy consumption; the oldest tool in the company dates from 2010.



THE BINGEN TRIUMVIRATE

The triumvirate of the title is not one of the infamous magistratures of ancient times but a contemporary group of individuals. We are talking about three capable entrepreneurs of Bingen (close to Sigmaringen), which share common interests, despite their different origins. They are all involved in wood working in different contexts and diversified aspects, but with a shared characteristics: the three companies are a local institutions and their owners have a weakness for the Italian machines produced by the SCM.

WIEHL

Jörg Wiehl

BRUNNER

on the right, Il mastro carpentiere Klaus Brunner

PAHL

Christoph Pahl

DESIGN

WIEHL, BRUNNER, PAHL (GERMANY)

SCM fever has spread amongst our triumvirate of Treppen und Geländer Wiehl, Holzbau und Zimmerei Brunner and Möbelschreiner und Architekt Pahl. The three companies continue their reliance on so-called standard machines for their production, along with or in addition to numerical control machining techniques. They all place a great deal of importance on aspects such as high technological content, reliability and prestigious design. Let's examine them in detail:

Treppen und Geländer Wiehl

The managing director Jörg Wiehl does everything he can, as partner and reliable supplier, to meet the requirements of his long-term clients, which mainly consist of manufacturers of prefabricated houses and builders as well as carpenters and joiners. This means on the one hand, perfectly constructed stairs down to the smallest detail, and on the other utmost punctuality in deliveries. The company's inspiration can be found in its mission ("We want to be a modern company focused on the future") and in its quality management system, which complies with the latest version of the standard DIN EN ISO 9001:2015.

Jörg Wiehl: "With our three CNC workcentres we are very well organised from a production and technical point of view. However for certain customised machining operations, such as the chamfers or 45° cuts, or even to adapt cuts and continuous cycle machining, such as mortising, standard machines are often better. Therefore in the SCM area we have two circular saws and an 8-axes spindle moulder, soon to be joined by a Superset automatic throughfeed moulder."

The machines mentioned in the SCM area are:

- **L'invincibile Si X circular saw**

Oscillation sector 92° = +/- 46°, blade unit tiltable on both sides, "Full Support" squaring frame for chamfers and complex angular cuts, 12" touchscreen colour display.

- **L'invincibile SI-5 circular saw**

12" touchscreen colour display, Quick Lock workpieces length stop rapid lock.

- **TI-5 spindle moulder**

Electrospindle, 8-axes control, HSK-63 spindle quick release system, 12" touchscreen colour display with programming and tools database.

- **Superset NT Automatic throughfeed moulder**

Machine in composition 5 including left vertical spindle equipped with automatic horizontal adjustment; it allows to process **sequence of pieces with different width from 25 up to 260 mm**, without stopping the machine for a high saving of time.
Superset NT is provided with **Mobile 10 electronic control for the management of 5 electronic positioning axes**, MDI function permits the adjustment of manual axes by means of interactive messages, guiding the operator in every single operation. The Superset NT's customer is provided also with SET-UP system, guaranteeing easy and quick profile change, because at every tool change corresponds only one adjustment.

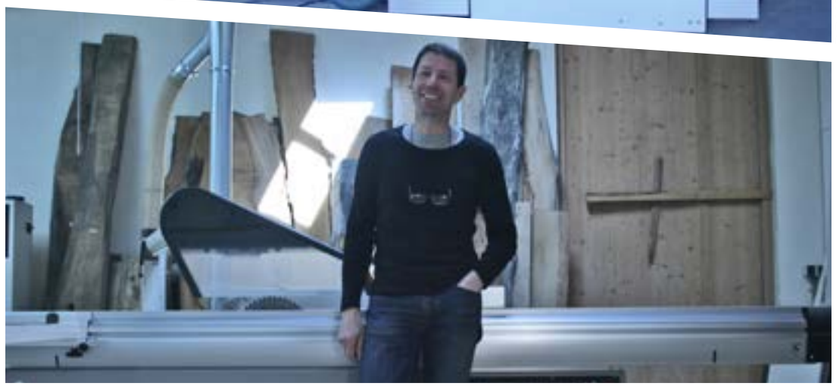
In order for the company's consolidated expertise in stairs to emerge convincingly the client must know and experience the birth of his stairs: from the tree trunk all the way through the design and construction of the finished stairs. All this begins by entering the design studio which offers over 20 different variations of stairs and by visiting the company. On that occasion the dream stairs are assembled and designed with the support of a professional consultant.

WIEHL

WIEHL

BRUNNER

BRUNNER



PAHL

PAHL

Holzbau Brunner

The master carpenter Klaus Brunner boasts a tradition of over 150 years. As soon as his son Kevin completes his studies in project management he will become the fifth generation of the family in the business. Versatility is an aspect that marks out a woodworking company: roofs, walls, new constructions, renovations, the company becomes the reference point for anything, including direction of works and relative coordination up to building licences. His company works mainly with regional private clients within a radius of 20 km and can rely on positive word of mouth feedback. After a terrible fire in October 2010, which caused damages estimated in the millions, the company had to equip itself with new machines. This is when SCM stepped in and promptly supplied all the basic fundamental machines.

"Thanks to the support and excellent consultancy of the SCM area manager we had a clear idea of which machines we would have needed and that we would be able to have delivered and installed quickly. Just four months from the fire we were fully operational", this is how Klaus Brunner, the owner, explained how he chose to re-equip his carpentry shop.

The machines selected:

• SI 550e class circular saw
3,200 mm cutting length, 1,500 mm cutting width (right), 200 mm cutting height, complete with 4-axes digital control and LCD screen in the control panel above the table and LED indicators

• Fs 520 class combined planer-thicknesser
520 mm useful machining width, pneumatic quick change system, power driven lifting of the thicknessing table with LED digital indicator, tiltable stop, pneumatically operated planer guard, retractable safety cover

• Ti 105 nova spindle moulder
+45°spindle tilting, 3,500/6,000/8,000/10,000 rpm spindle rotation speed, right/left, spindle adjustment in both axes with digital indicators, handle stop adjustment with digital indicators, 2 120 mm extractor outlets

"Despite our company's demanding requests we have never had difficulties with SCM machines. They are sturdy and simple to use, so much so that two of our employees immediately understood how they operate", says the master carpenter, satisfied with his choice. For him: "nothing is impossible!". This aspect is also important for a family run company that obtains the best results by "working together – celebrating together".

Christoph Pahl Furniture Factory

Christoph Pahl is a joiner, architect and supplier of services. As building contractor he can provide customers with a complete package: from designing to construction. "For me the aesthetics, the tactile and the acoustics are all equally important. In a time of surfaces and superficiality, such as the laminated-craze for example, there are still people who want to see, touch and hear the materials", this is the principle that guides Cristoph Pahl in his work. One could almost say that he manages two different activities under the same roof: wood working workshop and architect's office. This allows him to hear his customers' ideas, from which he develops and produces creative and functional solutions which he then puts into practice, supervising the entire design cycle all the way through the construction. In this process he places great importance on the originality of the design and on utmost quality. Customers must always come back enthusiastic, "and they do when they are satisfied", he states with conviction.

The aim is to express, with the configuration, the whole philosophy that determines his process. Which begins by purchasing the wood directly from local forests, which he has cut in the sawmill and lets it dry in his premises. He then lets his customers choose their wood. Another rule: the type of wood is associated to the person, because they must be able to feel that their wood adapts to their use. And seeing as the tactile aspect is more important than the aesthetics: "the sound of the material is important" and: "my unique models always have the same level of uniqueness that mirrors the customer". Artificial materials, which for him are plastic materials in general, are therefore disliked.

The same meticulousness has also been employed in equipping the woodworking workshop, because "in the workshop the wood must be able to shine, not the machine". This is why the master joiner, after a few initial trials, was struck by the machines of the SCM group. *"SCM builds all the machines that I need: non-showy colours, not much plastic, a lot of metal and good design, that grabs the attention. The machines focus on the wood, as a material, and their technical brilliance and reliability is well-known"*, this is the motivation for choosing the current machines which consist of:

• Si 450ep class circular saw
3200 mm cutting length, 1270 mm cutting width, positioning control to adjust height and oscillation, digital indicator on the parallel fence, 450 mm diameter blade

• Profiset 40ep automatic throughfeed moulder
180 mm/105 mm work area, 4 spindles, positioning control for 2 vertical and horizontal axes, wide 2300 mm infeed table

• 300 RCS 110 Wide belt sander
110 cm machining width, 2 units with steel roller and combination unit for calibrating and sanding, as well as veneering

Christoph Pahl's concept includes the possibility of offering customised solutions at affordable prices. To do this there certain key aspects in machining the solid wood and in the painting process. Materials in panels are provided by a sub-supplier and the finished kitchen furniture is bought from a renowned manufacturer.

When we referred to a triumvirate at the beginning, we meant a friendly relationship between three capable entrepreneurs that successfully run their companies inspired by lofty principles and excellent machinery. A positive example also for modern times.

text by Rudolf Bartl

CIAM: **PERFECT BLEND OF TECHNOLOGY AND THE VALUE OF HANDCRAFTED** PRODUCTION

Federico Malizia,CIAM general manager

If there is a "genius loci" an ugly object could never be produced by Ciam of Petrignano. The company is set in the green plain between Bastia Umbra and Petrignano. Looking up on one side there is the white Assisi towering at the feet of the Subasio, on the other side there is Perugia's Acropolis. We are a few kilometres from the "centre of the world"; in that land that inspired the most venerated Italian mystics and influenced the great painters and architects of Italian art.

Federico Malizia – young heir of a family tradition that began in 1977 and since 2006 president of Ciam (Costruzioni Italiane Arredamenti Moderni) – is aware of this privilege.
"One works better in a place like this", he explains from behind the desk of his office furnished in pure Ciam style, in the 23,000 square metre headquarters inaugurated in 2010.
The company produces furniture for bars, pastry shops, ice cream shops and restaurants. This year they celebrated 40 years with a series of sizable investments in personnel, technology and communication. **20 new assistants have been employed, an important cell has been bought from SCM, which includes an automatic Mahros Flexstore EL magazine and a Gabbiani Galaxy 2 panel saw** and the company presented itself in grand style at the main shows of the sector (Euroshop in Dusseldorf and Sigep in Rimini). Moreover Ciam is preparing a large event for its customers to coincide with Host in Milan in October.

If that wasn't enough the company has set up the Ciamuseum which, as well as being a showroom to present its production, features spaces to welcome its customers and work in an exquisite space.

"We've come a long way", explains Federico Malizia. *"The company that my father Giuseppe set up began with three employees and it built countertops for shops. In the eighties we moved to the production of modular furniture for bars and display cabinets for pastry shops. At the end of the eighties we moved to larger premises and changed our target. We no longer dealt directly with the end clients of the HoReCa sector, but we started working with shop fitters and designers for whom we produce every type of furnishing. Our catalogue mirrors this growth.* ***At the beginning we had 100 products, now we have reached 14,000****. We work directly with clients such as Eataly, Illy, McDonalds, Starbucks and with designers creating bars and restaurants worldwide".*

The great crisis of recent years doesn't seem to have affected you significantly…
"Since 2008 the world has changed and we had to reinvent ourselves. Before we only exported 10% of our production, in 2016 our export quota reached 50%. We took ourselves out of the fray of companies competing with each other only on price. We chose a mid to high end target, with custom and made to measure creations, and this turned out to be the right choice".

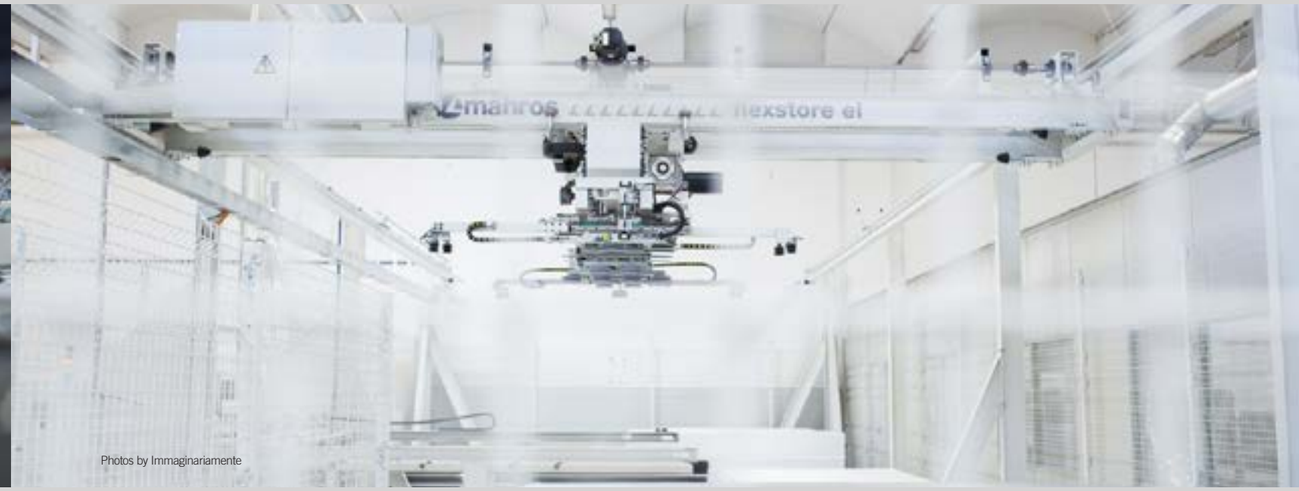
The company has 120 employees and various departments (machining metal, wood, glass and cooling systems). The impression is that as well as technology there is still a lot of craftsmanship involved?
"Of course, as well as on the products, we invested a lot on the materials, pushing the customisation to the maximum. We present innovative materials such as every kind of steel and metal, resins, burnished brass, porcelain stoneware as well as every kind of wood. In other words we pursue every new and captivating shape, which is the added value of our product. We have developed a genuine culture of beauty, of knowing how to make things and we always maintain great flexibility. On the one hand there is the technical office, which is a veritable pit bull, constantly thinking about new solutions, tracking state of the art materials and using the latest software; on the other we have true craftsmen who are exceptionally proficient in creating the products. Italy is a manufacturing country and travelling the world one realises that we can count on people with extraordinary manual skills that the rest of the world envies us"..

What differences are there between the production for Italy and the production for export?
"In the United States, our main market, there is a culture of the solid, functional and beautiful product, without any excessive refinement. In the middle-eastern markets we have created some truly exceptional products, such as very high, giant refrigerating cabinets. In Europe the aesthetic aspect is very important and the designers that we work with constantly come up with new solutions and materials".

Your relationship with SCM has consolidated over time. How has it changed and which machines do you use?
"We have been working with SCM since the middle of the nineties. Currently we have an SCM Tech z5 five axes work centre and a series of classic SCM machines that help us in the various machining operations. This year we decided to invest heavily in the woodworking workshop to bring it up to the same level as the metal department, therefore we have made the same conceptual choices: a ***Mahros Flextore EL 14 station storage*** *which lets us place a different material in each station. The magazine supplies a Gabbiani Galaxy 2 panel saw (that replaces a SCM Sigma 90 panel saw) which can machine with speed and precision and on "batch one" productions. This cell has been active for a few months and* ***since then the overall production has been simplified. Now we can do something in two hours that beforehand used to take us a day and a half.*** *The electronics linked to the panel saw are also an important step forward: we can label the product with the client's name, a solution that, for example, we need to be able to bring over to the metal department, where we still have to manually label the individual pieces".*

Your company stands out for its strong sensitivity towards your employees and social initiatives …
"Skills are fundamental in our sector. The quality of the product comes from the quality of the people and we are very committed to training. It takes years to adequately train a person, especially in departments where manual skills are still significant and where craftsmanship and knowledge of the product is refined only with time. When the company grew quickly we found we had to choose between going on hiring drive or limiting the production. We decided to invest in people, who are the added value in our high quality production. This year we have implemented welfare initiatives to reward the employees. It is an innovative idea for companies in our sector and of our size which includes: telemedicine sessions, tests and examinations, tests on food intolerances, posture, mole mapping…"

How do you see the near future?
"We will focus on foreign markets that demand high quality Made in Italy products. We will certainly continue producing all our products in-house, with a strong organisation that can perfectly combine state of the art technology with the values of craftsmanship."



Photos by Immaginariamente

EDGEBANDING HUB

SCM BOOKSHELVES FOR F. RAVA FOUNDATION

06 SPECIAL PROJECTS

SCM: THE FIRST HUB DEDICATED TO EDGEBANDING TECHNOLOGY IN THE HEART OF THE TRIVENETO AREA

Work will begin in June, in July the fittings will be completed and in September the new Hub dedicated to edgebanding technology will be fully operational in the group's production pole in Thiene.

*The **new exhibition concept** has been developed especially with a **modern and interactive vision, designed to create a sensorial and stimulating experience for customers** who will be able to see, touch and examine in depth every aspect of the solutions possible with SCM's edgebanding technology.*

*At the centre of this 370 square metre area there is the **innovative "Edgebanding Hub"** where, in a relaxing space, customers can explore and examine the principles, details and all the results that can be achieved with modern edgebanding for panels. Thanks to the Group's knowhow, and the contribution of important technical partnerships, the new space will let customers touch first-hand the state of the art production process for top of the range edgebanding.*

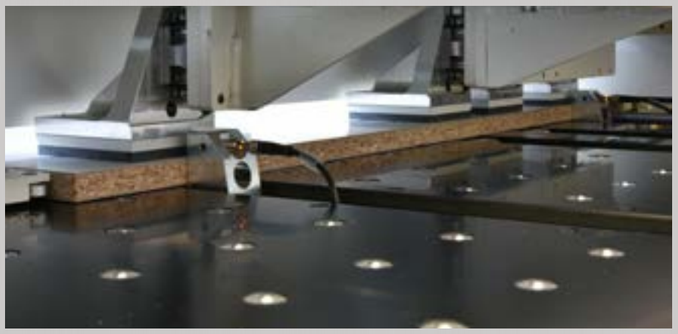
In order to complete the experience, around the HUB there will be a veritable test room which will be used to showcase SCM's edgebanding solutions. All the models of the Group's range will be present: Stefani S with a specific focus on the innovative J Shape machining, Easy Order SZ and STEFANI XD for the panel industry. The room will also have space for the edgebanders of the Olimpic K range, which are the reference point for top of the range woodworking workshops. All customers and professionals of the sector will be able to appreciate the performance of SCM products,

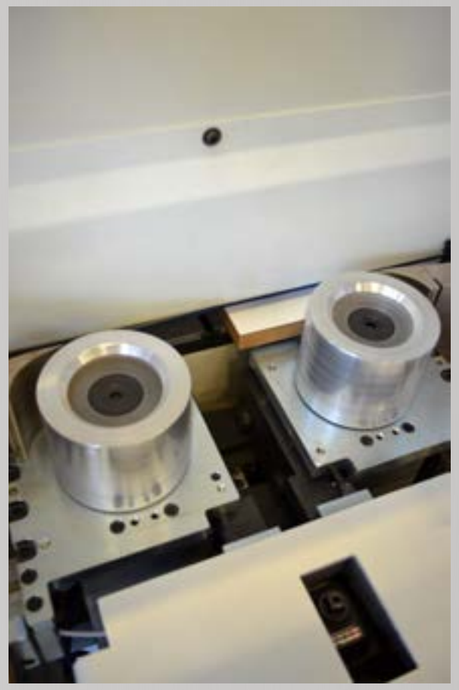
thanks to a completely customisable demo, both in terms of type and materials used, from the most common to the most innovative.
The room will be fitted with large video-walls which will present all the details of the SCM solutions, with films that journey to the heart of the individual machines.

The multi-use aspect of the new edgebanding HUB will also include a new training centre for specialist edgebanding technicians, in order to keep the network of specialists constantly updated on new edgebanding developments.

New spaces for in-depth analysis, custom uses, technical training and business will make ***Thiene the pre-eminent technological Hub for panel edgebanding.***

The new test room stands in the heart of the Triveneto, one of the world's most renowned and technologically advanced areas in the furniture and machining sector.





SCM ALONGSIDE THE FONDAZIONE FRANCESCA RAVA N.P.H. ITALIA

Scm has not remained indifferent to the appeal launched by the Fondazione Francesca Rava – N.P.H. Italia, which helps children in hardship in Italy and across the world. The Fondazione Francesca Rava, after the terrible earthquake that struck Central Italy in the summer and autumn 2016, worked on the reconstruction of six schools in the areas struck, thanks to the help and support of many donors and supportive companies.

Two schools have already been completed: one in Arquata del Tronto, in November 2016, and another in Norcia on 31 March 2017. In May 2017 we will complete a secondary school and a nursery school in Norcia and an elementary and a secondary school in Cascia.

On the day the elementary school was inaugurated in Norcia, Mariavittoria Rava, president of the foundation, launched an appeal for help to complete this important program.
And SCM wanted to contribute to the effort of returning the area struck by the earthquake to normality. The group decided to donate 25 libraries for the schools that have been completed and for the ones being finished.

The bookshelves were produced during this edition of Ligna Hannover, by SCM's highly technological and completely automated integrated cell. This technological solution, which represents a concrete application of the Industria 4.0 concept and "mass customization", has been optimised to produce libraries that will be used in the recently rebuilt schools.
A functional combination of high technology and solidarity.

FONDAZIONE Francesca Rava

NUESTROS PEQUENOS HERMANOS 60 anni

N.P.H. Italia

THE FONDAZIONE FRANCESCA RAVA – N.P.H. ITALIA
The **Fondazione Francesca Rava** helps children in serious need and in Italy it represents **N.P.H. – Nuestros Pequeños Hermanos** (Our little brothers and sisters), an international organisation, that for over 60 years welcomes orphan and abandoned children in its homes and hospitals in 9 Latin American countries.
The foundation is particularly involved in the extremely poor **Haiti** with the paediatric hospital St. Damien, that helps 80,000 children a year, street schools for 10,000 children, 2 centres for disabled children, 2 orphanages with 800 children and with reconstruction and water and food distribution programs. In Italy we work as volunteers to provide first aid for migrants, children and pregnant women in particular, on the Italian Navy ships in the Sicilian Channel, we bring aid to families and bodies hit by sanitary poverty with the "In farmacia per i bambini" and in collaboration with KPMG, we fight child abandonment with the "Ninna ho" project, which is the first such project on a national scale with the support of the Italian Neonatology Society and the Ministry of Health. We are also rebuilding 6 schools for children in Central Italy, that were struck by the earthquake (two have already been completed).

www.nph-italia.org

THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

SCM. A RICH HERITAGE OF WOODWORKING SKILLS IN A UNIQUE BRAND

TECHNOLOGIES	ORIGINAL BRANDS
CNC MACHINING CENTRES FOR DRILLING AND ROUTING	MORBIDELLI
CNC NESTING MACHINING CENTRES FOR DRILLING AND ROUTING	SCM
CNC HOUSING MACHINING CENTRES FOR ROUTING AND DRILLING	SCM
CNC MACHINING CENTRES FOR TIMBER CONSTRUCTION	ROUTECH
CNC MACHINING CENTRES FOR DRILLING, ROUTING AND EDGEBANDING	MORBIDELLI
EDGE BANDERS, SIZING EDGE BANDERS	STEFANI, SCM
BEAM SAWS	GABBIANI, SCM
DRILLING SOLUTIONS	MORBIDELLI, SCM
FINISHING SYSTEMS	SUPERFICI
WIDE BELT SANDERS	DMC, SCM
AUTOMATION SYSTEMS	MAHROS
THROUGHFEED MOULDERS	SCM
PRESSES	SERGIANI, SCM
SYSTEMS FOR DOORS AND WINDOWS	SCM
MACHINES AND SYSTEMS FOR SQUARING, PROFILING AND TENONING	CELASCHI
ASSEMBLY AND PACKAGING	CPC
JOINERY MACHINES	SCM, MINIMAX
INTEGRATED SYSTEMS AND LINES	

Over 65 years of success gives SCM the centre stage in woodworking technology. This heritage results from bringing together the best know-how in machining and systems for wood-based manufacturing. SCM is present all over the world, brought to you by the widest distribution network in the industry.

65 years history
3 main production sites in Italy
300.000 square metres of production space
17.000 machines manufactured per year
90% export
20 foreign branches
350 agents and dealers
500 support technicians
500 registered patents

scm woodworking technology | *is more*

CREDIT

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The magazine cover is created with Favini - Remake Carapace paper.
Remake is a high-end, ecofriendly, uncoated paper.
The special touch and the natural look of the paper is due to the up-cycling process which includes leather residues to substitute FSC™ cellulose to the tune of 25%

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