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HITS
2019
A YEAR OF SUCCESS STORIES


scm
woodworking technology
is more

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Smart&Human stories

Right from the outset, SCM has built its success around offering its clients solid solutions that suit market demands. Nowadays, in the era of the Industry 4.0 and Mass Customisation, our experience in the field means we have managed to establish a new production model. A system where humans and technology work in perfect harmony, to satisfy every taste and market demand: this is how SCM's **Smart&Human Factory** came about.

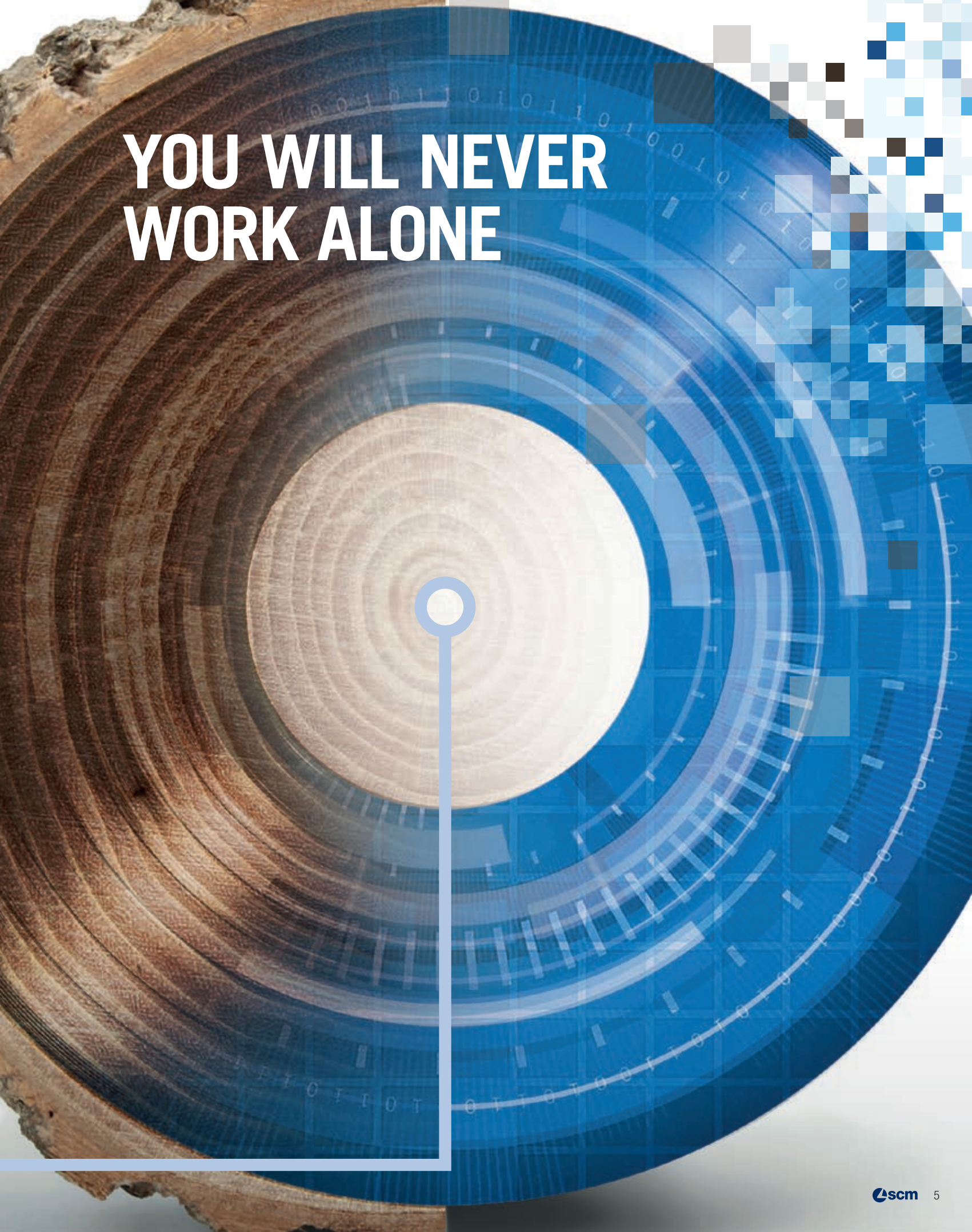
Interesting interviews will accompany you through the following pages, inside this vision of the future factory - intelligent but people-friendly. You will find out how SCM has once again interpreted the furniture industry effectively and solidly to meet its clients' needs. Clients which SCM is committed to working alongside, accompanying them as they develop and expand with state-of-the-art technological solutions which are increasingly flexible, modular and scalable.

This is where the claim **"You will never work alone"** comes from. Not only does it refer to the new interaction between machines, robots, digital systems and humans but more than anything, the daily consultancy service guaranteed by SCM technicians and experts to timber industry companies around the world thanks to a capillary distribution network and direct branches, including the most recently established one - the SCM Austria branch, operational since March of this year.
This excellent skill reinforces and grows thanks to the specific training courses in the Scm Group's Campus project, inaugurated at the start of the year, or through close collaboration with Universities, Technical Institutes and Professional Training Organisations, because the industry's future also passes through there. A future which companies build, day after day, aware of the fact that investments in technology are essential for growing and keeping abreast of the times but which should also allow for greater flexibility compared to the past.

Hits 2019 continues in its mission to tell the stories of some of these companies which have entrusted themselves to us, by investing in SCM technologies to achieve top quality projects and products, from furniture and furnishing accessories, from contract to design items, from doors to timber houses, right up to sectors like the car industry. Every kind of technology like those for surface treatment where SCM boasts a long experience, having been the first company to propose an integral range of solutions for sanding, painting and pressing, and which today has enhanced its specialist laboratories at Villasanta (MB) and Villa Verucchio (RN) where clients have a chance to test finishing processes for themselves, trying out the end result on their products.

You will discover this and much more in this new magazine, designed and produced with the intention of showing off different aspects of the timber world in the hope it will act as a valid point of reflection on the industry's future.
Hope you enjoy the read!

Gian Luca Fariselli,
Communications Director


YOU WILL NEVER
WORK ALONE

AT THE FOREFRONT OF CHANGE

*Interview with **Luigi De Vito**, SCM Division Director and Scm Group Sales & Marketing Director*

A top level technological innovation, capable of providing increased support to companies with their business and tangibly assist them with new demands linked to "mass customisation" and the 4.0 Industry. This is the priority that drives SCM to developing evolved solutions, in line with new market challenges. "From world leader and partner of the most well renowned and innovative companies in the woodworking industry dedicated to the processing of panels, hardwood and woodwork - **explains Luigi De Vito, SCM Division Director** - our strength lies in being able to use careful analysis and data collection to recognise the main production requirements of our clients, in advance, who no longer wish to settle for set standards with regard to performance, aesthetics and price.

The change in course is transversal to the entire industrial sector, from large businesses to small artisan laboratories, and SCM, boosted by its experience of the entire range of production machines and processes, develops Easy & Responsive solutions for each target. One example of many is the **"Smart&Human Factory"** that SCM is presenting in world preview at Ligna 2019. After launching its "Lean Cell 4.0" two years ago at the Hanover Fair for highly automated industrial production, SCM is now going a step further, revolutionising the concept of Smart Manufacturing and presenting a state-of-the-art production model, based on digital and automation systems capable of permitting a new interaction between machine, industrial and collaborative robotics, ground logistics movement and software.

You will never work alone is the concept that describes the SCM vision of the factory of the future. What does this mean?

The concept effectively summarises the aim of SCM's new vision: to promote an automation that is "user friendly", as much as possible, and that, as well as considerably simplifying the factory, rendering it more efficient, also creates a new model of interaction between man, robot and machine, in open, safe cells and with highly innovative, flexible, modular and easily re-configurable plants.

"You will never work alone" refers to SCM's strength to be a partner for all the companies working in the secondary wood processing industry, over and above being a supplier; an all-round consultant capable of supporting clients along their investment and business path, **giving constant support**. In order to achieve this, SCM provides clients with their know-how, spanning more than 65 years, in the woodworking industry, to create wholly integral made-to-measure, turn-key solutions".

The client asks for easy-to-use solutions, that increase productivity, flexibility and, at the same time, help optimise handling raw materials.

"Nowadays, a manufacturer who produces around 500-800 pieces per shift requires flexibility in order to rapidly change the pieces and pro-

Luigi De Vito
SCM Division Director
Scm Group Sales & Marketing Director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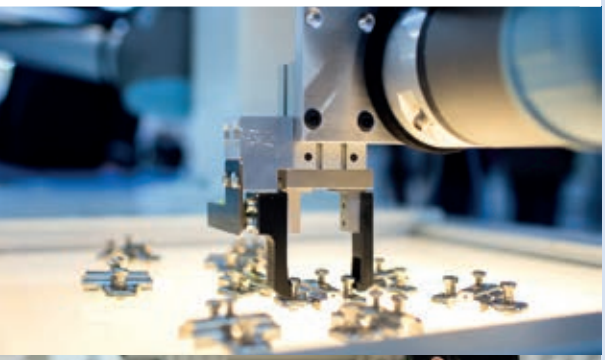
duction. The set-ups need to be extremely rapid, waste needs to be reduced and solutions need to be reconfigurable, over time, based on market demands. SCM's Smart&Human Factory heads in this direction: it **proves** that flexibility that can be achieved by concentrating numerous joinery machines in a single factory, with the advantage of a production on an industrial scale that optimises production flows, granting all-round control. This is our idea of the factory of the future: intelligent as well as people-friendly".

In 2018, Scm Group's turnover surpassed its goal of 700 million Euro and more than half is represented by the SCM brand and Wood Division that has continued to record a growth in double figures over the last two years. Its workforce is also in continuous growth and has surpassed 4,000 people divided between the three Italian production sites and its twenty branches in five continents. What are the next goals?
"Continue to guarantee a high quality product which, in the case of SCM is represented by the vastest range of technologies and solutions for advanced processing of existing wood on the international market, accessible both to small and large businesses in the industry. SCM's strong point, however, is also its ability and ease with which it localises itself in different areas, across all five continents, with a very strong distribution network guaranteeing a capillary and direct presence on all markets. The recent opening of a new branch in Austria is proof of this. It was created with a view to guaranteeing a solid, highly professional presence throughout the country as well as ensuring the best skills dedicated to all technologies and software applications linked to the panel, solid wood and wood work process.

Software and digital services; another of SCM's important priorities in the coming years.
"Yes, further strengthening of our software range (from the office to machinery) and digital services has two objectives: on the one hand, simplifying further the work of the operator and increasing the effectiveness of the systems and machinery to achieve results that so far have been unthinkable; on the other, that of accompanying the client by providing all the support, consulting and training needed to optimise their own production processes, as well as help them further improve the effectiveness of the plants. A genuine breakthrough: a direct line and an increasingly more efficient service, aimed precisely and exclusively at the client, even on after-sales ” aspects."

Bruno Tommasini,
SCM Engineering Director, outlines the strong points of the Smart&Human Factory



THE "SMART&HUMAN FACTORY"

The purchasing methods in the furnishing sector have changed dramatically in recent years: we have moved from "furniture for everyone" to "furniture for the individual", an increasingly more unique styles which, as a result, needs to be custom built to meet the client's individual specific requests. The furniture needs to be innovative, designed with different materials (glass, wood, steel, etc.), ecological, functional, good quality and long lasting. Furthermore, the market demands increasingly tighter delivery times and more competitive pricing, aided and abetted by the increasing use of e-commerce that allows clients to configure the product to suit their needs.
So, a production system is required that **can deal with all the orders quickly, customising them to meet demands while simultaneously reducing waste and retooling times for an order change. The answer lies in technologies that are easy to use and above all flexible, modular and reconfigurable.**

The strength behind the 'made by SCM' process is to **optimise the panel cutting, edgebanding and drilling operations as much as possible resulting in high production line speed, and put the orders back together at the end of the process**, leaving the customisation to the assembly stage. The advantages include good management of the material and pieces being processed, a significant reduction in waste and considerable financial savings. Because logistics, as they are organised nowadays in numerous factories, risk becoming an unsustainable cost.
At the same time, old land and air automation systems are no longer suitable as they were conceived for high production capacity and poorly serve the critical situations faced by modern day furniture manufacturers. So, SCM decided to integrate **automated flexible cells** with industrial, collaborative robots and programmable intelligent unmanned shuttles (AMR) which, depending on the production unit plant, work alongside the operator. The operator is not replaced, but relieved of repetitive and risky tasks so they can dedicate their time to more high value-added tasks. The human figure in this production model designed by SCM maintains a central role because s/he becomes a supervisor and process director.
Furthermore, the whole system is managed and optimised by the **Maestro active watch** supervisor software, to monitor the state of each product being machined, from the start to the end of the process. This is supported by the **IoT Maestro connect** system that collects and analyses the data from the SCM technologies, achieving complete control and the implementation of remote and predictive maintenance models.

The process starts in the **cutting cell** where the raw material is stored in an automatic warehouse for shaped panels. It is loaded into the operating machines (integral part of the warehouse) for the cutter and blade sectioning. Once the cut has been made, the individual components are transferred by an industrial robot on a shuttle to the next cell. At this stage of the process, we are working as though we were on a mass production line, because the system takes all the orders for one, two or more weeks (depending on what the client wants to do), places them in a line and develops all the cuts to be made for that specific thickness and colour. So, if I had to create a white piece of furniture today and another one in two days time, the panels for this furniture are processed today. This way the sheet is used to its maximum potential, minimising remains and waste.

The next stage involves an **edgebanding flexible cell**. According to the program that is called up, the panel will be subject to fewer or more steps. At the exit, the same robot that loaded the machine, stacks the edgebanded panels that are then again transferred via shuttle to the **drilling cell and assembly dowel insertion**. Here, the components are processed and allocated with the aid of an industrial robot in a modular deposit aimed at re-assembling the order. When this is complete, including parts provided in real time by contractors (such as cupboard doors), the shuttle transfers the kit to assembly. This function is offered by SCM via a semi-automatic process (complete automation would have required greater commitment in terms of investment). The station is arranged with work benches and collaborative robots that help the operators with the assembling of bases and the application of glue to the panels. The furniture components are then inserted manually in the clamp to ensure an accurate assembly and a perfect squaring and, subsequently, the complete box is transferred, again via shuttle, to the storage area for the end product.

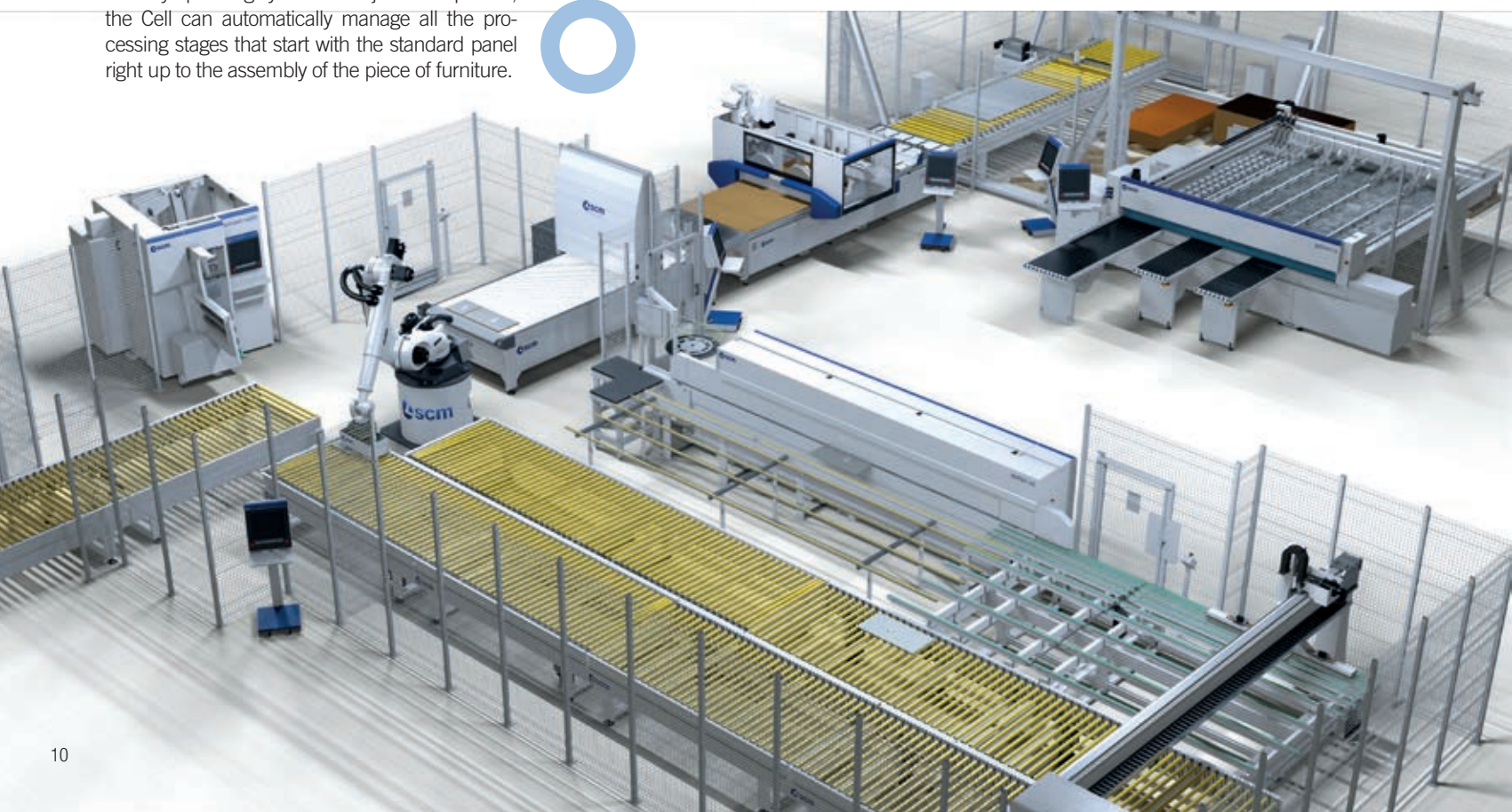
A cell system, configured as above, can produce 500 "batch one" pieces in a shift with two operators, a supervisor and 600 square metres of operating area. We are talking about a modular and scalable system: **the state-of-the-art SCM cells can be put together as you wish** to satisfy the various processings of the panel. For example, I can achieve a higher production capacity - up to 800 pieces per shift - changing the machines' configuration and the investment can be made step-by-step by taking into consideration market evolution. If there is sufficient space and the level of flexibility is not extreme, I can also combine certain functions (for example sectioning and edgebanding or edgebanding and drilling) saving on the number of industrial robots and shuttles.

The "**Smart&Human Factory**" concept which, according to Scm represents a "**vision**" of the factory of the future can be expanded to create complete furnishings - bathrooms, kitchens, living areas, bedrooms - within the same production unit by using a series of combinations between the shuttle routes and flexible processing cells.

"LEAN CELL": THE PRODUCTION SYSTEM FOR "ONE BATCH" CABINETS

THE DIFFERENT MODELS DESIGNED BY SCM IN LINE WITH CLIENT DEMANDS

The "**Lean Cell" or "4.0 Cell**" developed by SCM can provide an solid application of "**4.0 Industry**" concepts and "**mass customisation**", with a view to meeting the client's individual needs, while maintaining the advantages of industrial production. The entire system is fully automated and managed by **Maestro active watch** software, assisted by an anthropomorphic robot equipped with a display for piece recognition, and managed by a single operator who does not need to be an expert. The "4.0 Lean Cell" is highly flexible and capable of producing a large variety of pieces, with production in large numbers of "batch one" panels ready to assemble. The cell uses fully reliable standard SCM models that are high performing as well as easy to use and configure. Furthermore, the system operates automatically once the order has been placed and is open to every operating system. With just one operator, the Cell can automatically manage all the processing stages that start with the standard panel right up to the assembly of the piece of furniture.



PRODUCTION SYSTEM FOR "ONE BATCH" CABINETS - LEAN CELL

1

CELL COMPOSITION

1. CNC nesting machining centre for drilling and routing **morbidelli n200** 3122
2. Edge bander **stefani xd** + feeder
3. "Pickback" piece return
4. Drilling solution **morbidelli ux 100**
5. Robot KUKA KR180 R3500 + Vacuum gripper
6. Vertical buffer

   Maestro active watch SPV

SPECIFICATIONS:

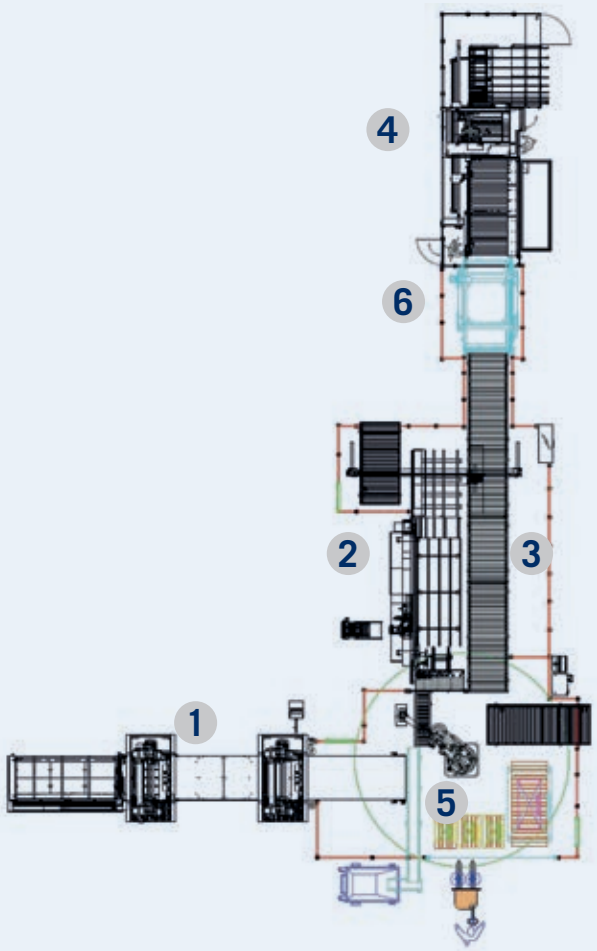
- Productivity up to **400* pieces/shift**

  **Squared and made-to-measure panels*

  Manual unloading of the bottom drills on line
- Min. panel dimensions: 260 x 130 mm
- Max. panel dimensions: 2750 x 1300 mm
- Thickness: min 10 mm – max 60 mm
- Max weight: 60 – 70 kg
- Operators: 2
- Area: 400m2

BENEFITS

- Fully integrated average productivity process for the cabinet components



2

CELL COMPOSITION

1. Storage Handling System **flextore el** 9 x 12
2. CNC nesting machining centre for drilling and routing **morbidelli n200** 3122
3. Edge bander **stefani xd** + feeder
4. "Pickback" piece return
5. Drilling solution **morbidelli ux 100**
6. Robot KUKA KR180 R3500 + Vacuum gripper
7. Vertical buffer

   Maestro active watch SPV

SPECIFICATIONS:

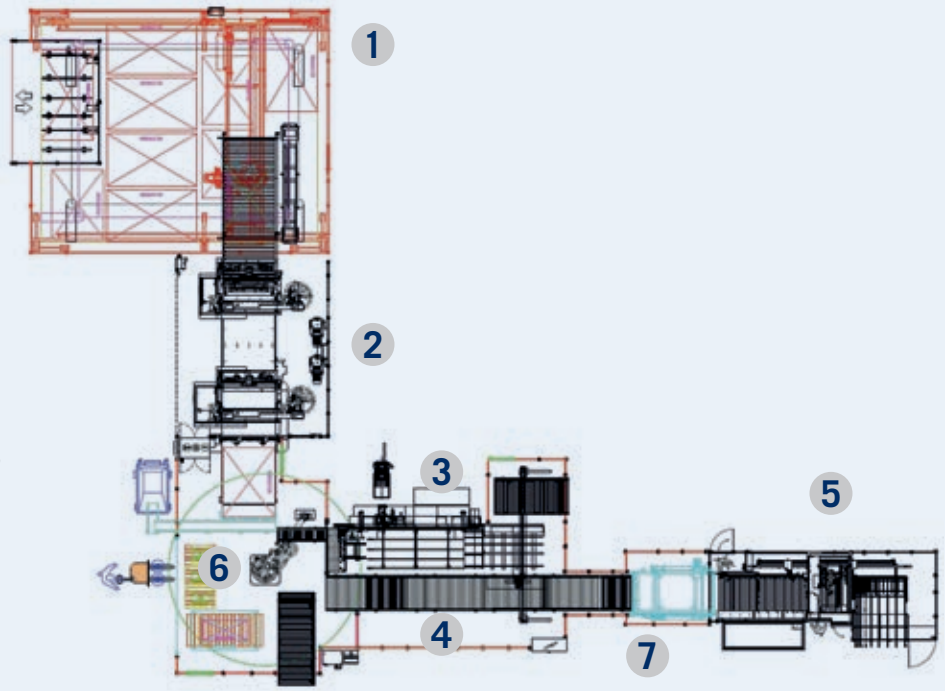
- Productivity up to **400* pieces/shift**

  **Squared and made-to-measure panels*

  Manual unloading of the bottom drills on line
- Min. panel dimensions: 260 x 130 mm
- Max. panel dimensions: 2750 x 1300 mm
- Thickness: min 10 mm – max 60 mm
- Max weight: 60 – 70 kg
- Operators: 1 supervisor, 1 operator
- Area: 520 m2

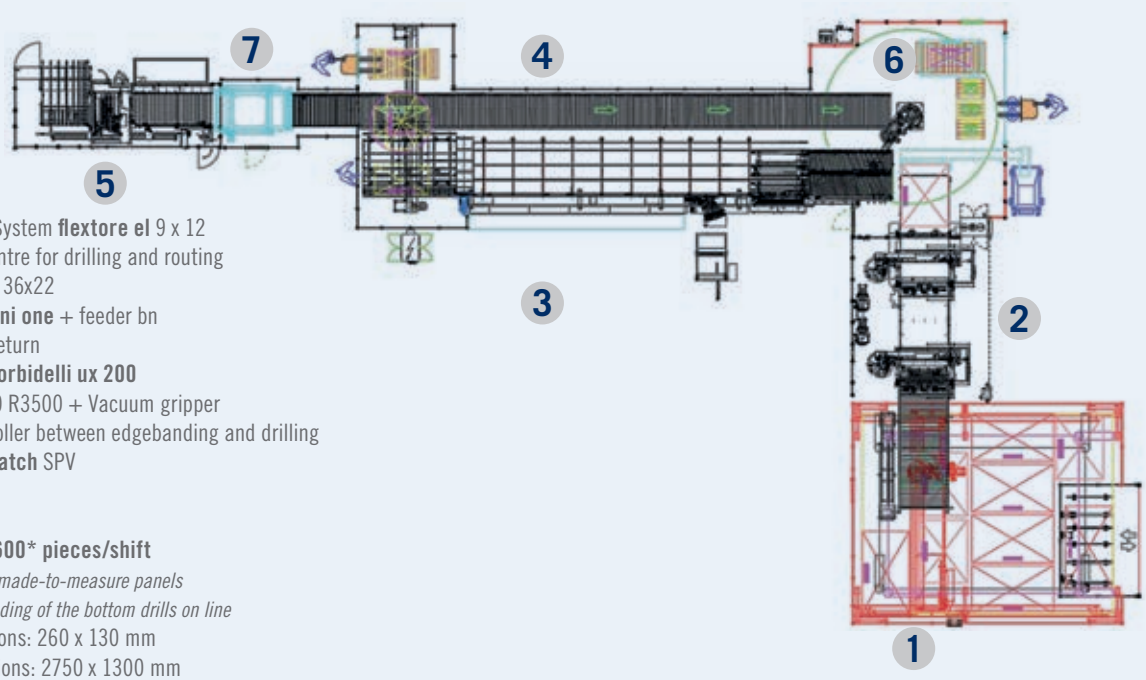
BENEFITS

- Fully integrated average productivity process for the cabinet components



PRODUCTION SYSTEM FOR "ONE BATCH" CABINETS - LEAN CELL

03



CELL COMPOSITION

1. Storage Handling System **flextore el** 9 x 12
2. CNC machining centre for drilling and routing **morbidelli m400f** 36x22
3. Edge bander **stefani one** + feeder bn
4. "Pickback" piece return
5. Drilling solution **morbidelli ux 200**
6. Robot KUKA KR180 R3500 + Vacuum gripper
7. Vertical buffer + roller between edgebanding and drilling **Maestro active watch** SPV

SPECIFICATIONS:

- Productivity up to **600* pieces/shift**
  **Squared and made-to-measure panels*
  Manual unloading of the bottom drills on line
- Min. panel dimensions: 260 x 130 mm
- Max. panel dimensions: 2750 x 1300 mm
- Thickness: min 10 mm – max 60 mm
- Max weight: 60 – 70 kg
- Operators: 1 supervisor, 1 operator
- Area: 820 m2

BENEFITS

- Fully integrated average/high productivity process for the cabinet components

04

CELL COMPOSITION

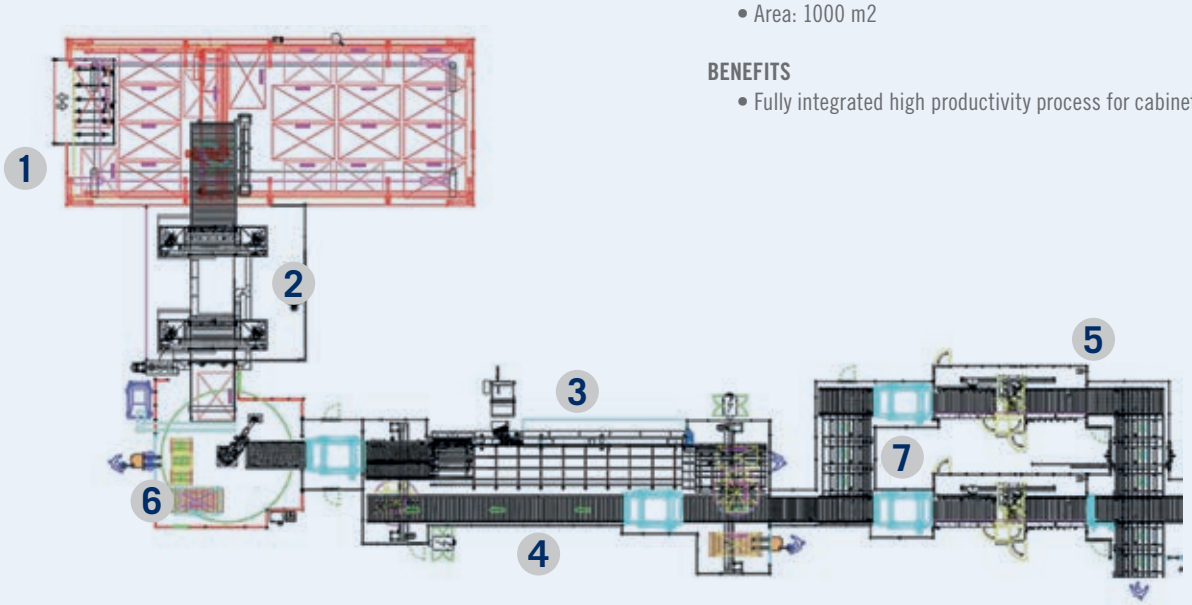
1. Storage Handling System **flextore el** 9 x 24
2. CNC machining centre for routing and drilling **accord 40nst**
3. Edge bander **stefani one** + chain feeder
4. Mahros automation loop for edge bander
5. 2 Drilling solutions **morbidelli ux 200**
6. Robot KUKA KR180 R3500 + Vacuum gripper
7. Vertical buffer + edgebanding automation and drilling area **Maestro active watch** SPV

SPECIFICATIONS:

- Productivity up to **800* pieces/shift**
  **Squared and made-to-measure panels*
  Manual unloading of the bottom drills on line
- Min. panel dimensions: 260 x 130 mm
- Max. panel dimensions: 2750 x 1300 mm
- Thickness: min 10 mm – max 60 mm
- Max weight: 60 – 70 kg
- Operators: 2
- Area: 1000 m2

BENEFITS

- Fully integrated high productivity process for cabinet components



THE ALLWOOD CASE **FOR A PRODUCTION OF 1000 PIECES PER SHIFT**

Allwood Cabinetry, located in Bartow (Florida), is a company specialising in top of the range custom-designed cabinet and wardrobe production, both for individual customers and for professionals in the building industry. With 30 million dollars and around sixty employees, this company stands apart thanks to its four kitchen, bathroom and wardrobe brands and can offer the right solution for every need. Furthermore, its 150,000 square metres of factory covering warehouse and production area, is fitted with fully automated production lines that guarantee a high level of customisation of the end product and fast delivery times, in just 7 days.

Allwood Cabinetry entrusted itself to SCM for the development of an automatic integrated and multifunctional production line aimed at the production of top quality furnishings that guarantee a production target from 1000-1100 panels per shift (c. every 8 hours).

The main characteristics of the system offered by SCM are:

- a high integration level: the process, from the warehouse to finished panels, is completely automatic under the control of a single software supervisor
- the automatic application on each panel of BC Barcode identification labels and automatic monitoring of the parts being processed along the entire production line: nesting, edgebanding with relative traceability of the panels, drilling, dowel insertion and unloading
- a production line managed by a single operator, thanks to the presence of two robots to deal with operations.

HIGHLIGHTS

THE LAUNCH OF "CAMPUS": FOR TRAINING IN LINE WITH NEW TECHNOLOGICAL CHALLENGES

A practical response to the continuous technological and training challenges now facing the manufacturing industry. Support to business as well as a socially responsible gesture.
Rimini is the starting point of the **Scm Group Campus** project, with which the world leader in technologies for machining a wide range of materials and in industrial components is re-launching and boosting what has always been a priority: to develop the most advanced expertise in these sectors and pass it on to current and future professionals worldwide.
Campus was established with a view to coordinating and supporting all the work that goes into developing the professional technical, organisational and managerial skills of more than **4,000 people who work for the group** in the three large production centres in Italy and its more than twenty foreign branches.
Where there is a need for it, some training courses also extend to **dealers and end customers** in the SCM. network. But there's more: this centre aims to be a reference point for **Secondary schools, Universities, the various Professional training bodies and Business Schools** with which SCM already works in Italy and abroad on joint training initiatives, making available the high-tech aspects of its machinery and the know-how of its professionals.

THE 4 CAMPUS TRAINING COURSES

- **"Welcome"**: aimed at all newly hired employees at the onboarding stage. There is a theory phase in the classroom, covering the group's core business, and a practical phase with a shadowing period.
- **"Technical Training"**: supports specific technical training for the group's various technologies / product lines, the installation and maintenance methods for machines and/or systems, plus industrial and commercial processes. Includes targeted paths for safety aspects and new technologies.
- **"Leadership"**: is for young graduates, people with proven technical expertise and managers from all company departments, allowing them to keep adding to their managerial, economic and relationship skills.
- **"Focus on"**: includes special projects, for acquiring know-how and innovative and strategic working methods, as well as for supporting the network of employees and collaborators through times of major organisational change.

NUMBERS AND ACTIVITIES

Campus is spread over a total area of **1300 square metres**, with 9 classrooms, offices and a Training Centre set up with SCM machines, dedicated to training support technicians.

RELATIONSHIP WITH THE TRAINING SECTOR

Scm Group's "Campus" continues and re-launches a long tradition of projects and relationships.

• Italian universities with which SCM works on apprenticeships and joint training schemes include **Bologna University** (also the Rimini and Forlì-Cesena sites) and **BBS - Bologna Business School** with which it designed the Master in Internet of Things (first edition in 2018). The group also has active relationships with **Cattolica University in Milan, the universities of Ancona, Bergamo, Padua and Turin Polytechnic for the new Master in Timber machining for construction**, which started in the autumn of 2018 and is for level 2 Architecture and Engineering graduates. Plus, the brand new Faculty of Engineering for Wood Technologies at the **University of Bolzano.** The group also works with foreign universities, from **Rosenheim** University to **Moscow, St Petersburg and South Bank University, London**.

• Scm Group now also supports the diverse **professional training** sector, in the various machinery and industrial component sectors, helping teachers and students to stay up-to-date with the most advanced systems and the latest-generation digital services.

A GROUP OF ENGINEERS AND ARCHITECTS OF THE NEW MASTER'S DEGREE PROGRAMME IN "WOOD ARCHITECTURE" AT THE TURIN POLITECNICO GRADUATE SCHOOL VISITED SCM'S RIMINI HEADQUARTERS AND THE SCM SINALUNGA PLANT FOR A TWO-DAY STUDY OF THE LATEST INNOVATIONS DEVELOPED FOR THE ENTIRE PRODUCTION CHAIN.

Some of the most important experiences currently active include: the new **Federlegno Arredo Training Centre**, inaugurated last November at Lentate sul Seveso (Monza-Brianza) attended by more than 400 young people; **the Carniello Institute** at Brugnera (Pordenone) which enrols 90 students each year; the **Fermo Solari** state secondary school at Tolmezzo (Udine), specialising in teaching timber machining for construction. Abroad, the group has links to schools well known in the sector, whose students can specialise and learn the secrets of the trade by working with SCM solutions: from the **Enstib - Ecole Nationale Supérieure des Technologies et Industries du Bois** (National Secondary School for Wood Technologies and Industries) linked to Lorraine university, France, to **College Cerritos** and **Laney College**. California.

• Since 1980, for two decades the Scm wood department had its own school, the **CSR Training Centre**, which trained a total of around 4,000 people, from 40 countries. It was a centre of excellence that was unique in Italy, the recipient of several international awards, gaining a reputation as the second-ranked private school for woodworking worldwide, second only to Rosenheim, in Germany. Over twenty years it was awarded a large portion of public funds for regional and national training. That was the starting point for several of the Group's current collaborators, now even in management roles. It also laid the foundations for all of the training activities that still go on today.

"SCM AUSTRIA" OPENS

SCM has further confirmed and strengthened its presence in Austria with the opening of its first branch in this transalpine country. The inauguration was held **from 13 to 16 March** at the headquarters in **Ansfelden (Linz)**, with an Open House that gave the entire sales network and companies in the sector a chance to take a closer look at all the key aspects on offer, designed by SCM for the Austrian market: **the most extensive international range of solutions for wood and a team of technicians and sales engineers**, highly specialised in different technologies.

Exclusive solutions and services that aim to accompany the client at all times, providing all the support, consulting and training required to optimise their production processes, as well as help him/her continually improve plant efficiency. A genuine breakthrough: a direct line and an increasingly more efficient service, aimed directly and exclusively at the client, even on after-sales aspects.

The new SCM branch can rely on a **Technology Centre** for excellence where clients have an opportunity to directly test the various solutions and observe a technical demonstration in real time both of software applications as well as specific machining work that the individual models are capable of carrying out.

"The Austrian market is one of the most strategic for our international growth plan, where Europe continues to produce half of our turnover - **highlights Fabrizio Pazzaglia, SCM Regional Manager for Europe** ***(in the photo on the right with Josef Werner, SCM Austria Country Manager, and Luigi De Vito, SCM Division Director)*** -. With the opening of this new branch, SCM, is increasingly focused on becoming an important point of reference for its clients, guaranteeing a solid, highly professional presence throughout the country as well as ensuring the best skills dedicated to all technologies and software applications linked to the panel, solid wood and joinery process".

In line with a strategy focused on European market consolidation, SCM further boosts its presence in Switzerland with a direct control headquarters in the Lucerne area. "Once again - adds Pazzaglia - we aim to provide our retailers and companies in the woodworking industry with support in their business with a sales and consulting team ready to deliver all-round assistance with whatever they need, pre and post sales. All this is achieved by SCM providing its clients with their know-how spanning more than 65 years in the woodworking industry, which SCM can offer to create wholly integral made-to-measure, turnkey solutions and accompany them in the era of Industry 4.0, without abandoning them for a moment".

Photo credits:
Melvyn Earle, Furniture Journal

THE "NEXTING GENERATION" IS HERE

For a world that is increasingly moving towards flexible and batch 1 production, the nesting process is undoubtedly a point of reference for furniture manufacturers. The possibility of producing a larger number of pieces and dealing with shapes or very unusual forms, means manufacturers can achieve flexibility and carry out more operations on a single, numerical control machine.
All technology has its strong points as well as its weaker ones. As far as traditional nesting machines are concerned, three key critical aspects can be identified: handling of the spoil board panel, productivity (when compared with sizing machines) and the vacuum seal on small sized pieces.

The SCM team has devised, developed and tested innovative solutions as a remedy to their clients' problems and to give them a chance to increase their own productivity and flexibility at the same time. The result of the work carried out over the years is reflected in the new morbidelli x200/x400 machining centres that were exclusively presented at SCM's Open House 2019.

"The most acclaimed innovations on the m100 and m200 machining centres have been transferred to these new solutions for morbidelli x200 and x400 nesting" points out **Bruno Di Napoli, BU Manager for SCM Machining Centres**. "The new range is a genuine concentration of innovation and the ideal solution for most companies and artisan workers producing furniture".

The **spoil board panel** is essential for making the most of the nesting process as it would be impossible to go and work directly on the machine's surface without damaging it. This involves a series of problems and complexities that need to be handled by the operators. Starting with the flattening, moving on to the change of spoil boards that have come to the end of their service life and right up to their removal when there is a need to work with supports that must be fixed to the machine surface.
The new **morbidelli x200/x400** machines offer new innovations that will mean the spoil board panel no longer needs to be removed to carry out all the operations that were required in the past: making horizontal borings directly on the spoil board or positioning special suction cups above them will now be possible by increasing the machine's flexibility and productivity.

Other important changes introduced focus around the ability of the machine to **secure even the smallest pieces** during processing. Like so many other machines for nesting, the new **morbidelli x200 and x400** can be fitted with a work surface split into areas, with the possibility of closing off the vacuum areas not in use; that said, these are the only ones fitted with the new **X-Vacuum system**, for a genuinely dynamic activation of the vacuum. An innovative and automatic function carries the vacuum to exactly where it is needed.

Lastly, a **new labelling system and cutting speed** up to 50 m/min mean SCM clients can achieve a **completely new production** for a nesting machine. And that's not all: just like the cars that so many of us drive each day, the new morbidelli series can be used in smooth, neutral or dynamic mode (the equivalent of comfort, neutral and sport) to customise program use "at the wheel".
Years of design and investments have brought about the new morbidelli x200/x400 range. Outstanding performance, maximum configuration and a competitive price mean SCM have a made to measure machine for every client.
The NeXting Generation has officially begun.

SCM FOR THE GALLI THEATRE

SCM technologies have been involved a great deal in the restoration work at the **"Amintore Galli" Theatre in Rimini**, a prestigious building for the Italian historical and cultural scene, which was finally returned to its town and community on 28 October 2018. The famous local Theatre, opened in 1857 from a design by Luigi Poletti and very badly damaged by Allied bombings in 1943, re-opened its doors exactly 75 years after the last curtain fell.
SCM is not only one of the main sponsors of the Galli's first season, but also provided its high technology solutions - the same ones which supported state-of-the-art cultural works like the Hamburg Philharmonic Orchestra with its famous "white leather" upholstery and the Auditorium at the new Swiss International Scientific School in Dubai, - creating key architectural elements like the flooring, arched windows and doors with innovative, prestigious features.

Four Italian companies, all of noteworthy standing in their respective sectors and clients of SCM, were involved in this important and difficult restoration work,
Finblok – a company from Sedico (Belluno), which has been manufacturing top quality door and window frames for over fifty years - handled the restoration work on all the lamellar pine arched windows that were a considerable size, as well as the plywood panel shutters on a metal structure. Finblok also produced the "theatre doors" in cherry wood and solid oak, and the fireproof doors in lamellar oak and composite panels. The flooring for the stalls and solid wood gallery were supplied by **Garbelotto**, a long-standing, prestigious organisation in Cappella Maggiore (Treviso) which also boasts parquet flooring as one of its specialities, a vocation which dates way back to 1950 with floors which were produced with quality 16mm thick oak.
The internal doors, gates and solid wood doors in Tulipier and lime, as well external arches on the front façade in solid pine, were manufactured by **Mobilporte**, a company based in Fermignano (Pesaro-Urbino) with unique brush-stroke rustication and painting techniques
Lastly, **I.T.A.B.** from Ponte Santa Maria Maddalena (Rimini) was entrusted with manufacturing the theatre's internal vault and proscenium arch, as close to the soul of a theatre as one can get. A structural intervention carried out in full compliance with the theatre's architectural criteria but with modern tools and technologies which undoubtedly closely re-created the original atmosphere, style, richness and beauty of the works.

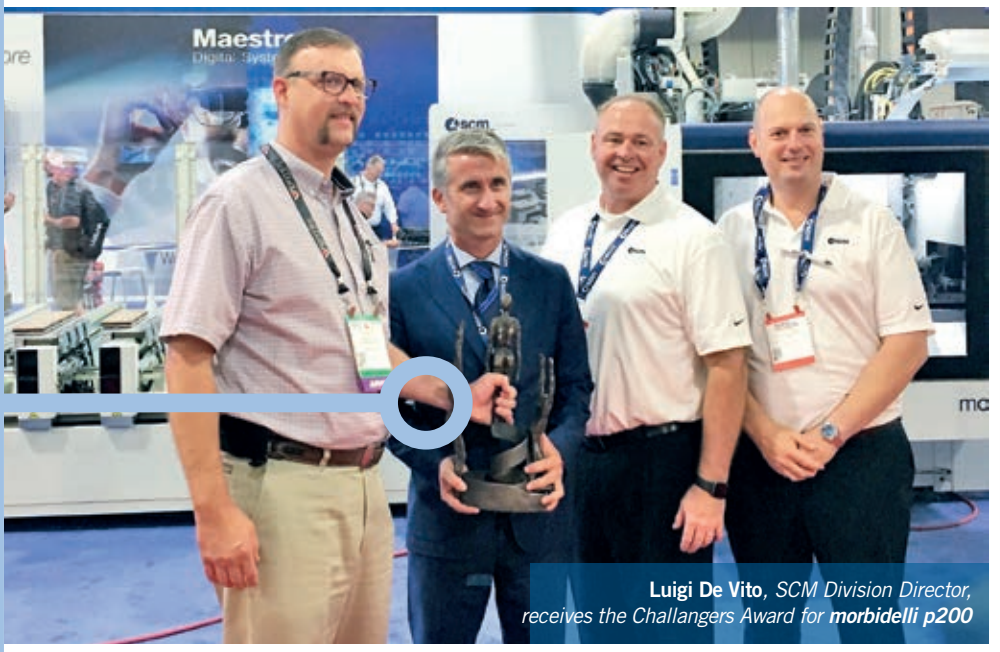
Andrea Aureli, *Scm Group CEO, with the Mayor of Rimini* **Andrea Gnassi**, *visiting the Galli Theater construction site during the restyling works*

SEVERAL AWARDS TO ACKNOWLEDGE SCM'S INNOVATION ACHIEVEMENTS

R&D has always been a key asset for SCM that invests 7% of its turnover in this sector each year. This is confirmed by the vast number of accolades attributed to SCM's most evolved technology in just one year.

Massimo Paganelli, *BU Manager for SCM joinery machines, in front of the* ***minimax me 35, 1****st XIA prize for the "Tools" sector*

Trio of awards at XIA – Xylexpo Innovation Awards 2018. Of all the companies present at Xylexpo, SCM received the most awards. Three completely different technologies received prizes demonstrating how SCM is a reference point for the entire industry, from joinery work to large industry. The **minimax me 35 combined end trimming and rounding unit** presented for the first time at international level, took first prize in the "Tools" sector. Jurors admired its ability "to combine trimming and rounding functions carried out with a single tool, allowing for the development of reduced bulk machinery" as can be read in the jury's motivations. Technology which makes this edgebander a unique machine for artisan joinery work. **SCM's gouging unit** won an award in the "Finishing" section thanks to **unique three-dimensional finishing effects on panels.** "With two milling units in a sanding machine - stated the jury - a wide variety of relief representations can be produced". **Maestro smartech** also took the stage thanks to its ability to offer "remote assistance and direct interaction between the end user and expert technicians located in the main headquarters, with the use of smart glasses".



Luigi De Vito, *SCM Division Director, receives the Challangers Award for* ***morbidelli p200***

At the **IWF 2018** in Atlanta, SCM was honoured with another prestigious award, the **Challengers Award,** for its **morbidelli p200 machining centre with HE-POD technology**, designed to meet every kind of milling, edgebanding and drilling requirement.

More recently, the new HMI developed by SCM, "**Maestro Active**", received a special mention at the **German Design Award**, one of the most prestigious designer competitions in the world which previews some of the latest industry trends in terms of research and innovation. The visual and interaction design project developed by SCM aims to meet all the using experience demands made by companies working with wood, especially the need to use the machine with ever increasing simplicity and efficiency.

Federico Ratti, *SCM Innovation Director, at the German Design Award*

A TECH LAB SPECIALLY DESIGNED FOR SCM EDGEBANDING

Some of SCM's more important investments in recent years include the new Tech Lab for edgebanding in Thiene, the largest in Italy dedicated to this technology and a space created to house customised testing and demonstrations for each and every kind of production need. The inauguration event, from 6 to 8 June created a perfect connection between technology and design. An occasion designed to discover all of **SCM's** latest technologies on edgebanding: from focuses on new devices to live demonstrations, in great demand, for each kind of processing and edge; from the new frontiers of **softforming** to the most interesting projects created for batch 1 production, including the **stefani cell**, the latest cell generation with high-tech solutions and not necessarily a heavy investment, and the new "pick-back" bridge system for automatically returning panels, allowing simple and “just in time” production management.

The SCM Team at the "Edgebanding Connect Days"

ALC CORPORATION (VIETNAM)
CABINET SYSTEMS (AUSTRALIA)
GIORGETTI (ITALY)
JDL INTERNATIONAL (TAIWAN)
MERZ SCHREINEREI (GERMANY)
UTOPIA GROUP (UK)
YACHTLINE (RUSSIA)

01

FURNITURE

scm

A CUSTOMISED SCM FACTORY FOR THE SUCCESS OF "CASTA" KITCHENS

The project developed by SCM for ALC Corporation closely examined all the client's machining requirements, to provide a vast and mixed range of evolved technologies. Having a single partner at its side was a considerable advantage for the Vietnamese kitchen company

ALC Corporation, run by **Mr. Luu Quang Loc**, CEO & Chairman as well as principle shareholder, is one of the most important kitchen manufacturers in Vietnam. His brand "Casta" is extremely well known thanks to its formidable network of showrooms found in every major city in Vietnam.

The company was founded in 1994 and currently, with over 1,000 employees located in the Ho Chi Minh City headquarters, handles the manufacturing of kitchens in two industrial plants, and the importation and sales of high-end kitchen appliances like Teka and Kueppersbusch. All of which is distributed throughout the country thanks to the company's logistics network and impressive fleet of lorries with the Casta sign which can often be seen winding its way through the famous Vietnamese traffic.

The trusting relationship with SCM has developed over time and, in fact, the original production site at Cat Lai has been using SCM saws, drilling machines and sanding machines for many years.

But the turning point came in 2017 when Mr Loc decided to invest in a new 80,000m2 production site in Long Khanh with a view to tripling ALC's production capacity, taking it from 4,000 to 12,000 kitchen sets per month. An important challenge entrusted to SCM Engineering right from the factory layout project stage.

The SCM project, worth more than 5 million Euro, is split into different stages and just as many solutions. The first is a panel machining system designed for mass production, that includes a **gabbiani a3 130** angular sectioning unit capable of combining flexibility, productivity and configurability to satisfy any process requirement, an imposing **stefani** line for double square-edging and an author 924 (nowadays known as the **morbidelli a924**) high productivity boring cell. Another technological solution concerns the production of medium batches with an automatic storage cell and management of unfinished **Flexstore** panels integrated with a **morbidelli n200** nesting machining centre for cutting shaped panels with the addition of **stefani** edgebanders and **morbidelli** flexible drilling centres. Another system is designed for the


Mr. Luu Quang Loc

production of single batches, made-to-measure furniture and samples with a fleet of SCM stand along machines for cutting, drilling, sanding and pressing. An automatic line for made-to-measure cutting of cardboard boxes and modular furniture packaging is also part of the project designed by SCM Engineering. Lastly, a series of **dmc** sanding machines found in the finishing area complete the items supplied: the surfaces sanded here need to be impeccable so maximum sensitivity and precision are demanded from the process. Based on lengthy experience and knowledge of the market, SCM has always known how to provide the right answer no matter what the production requirement, which in this case is a **dmc system**. The flexible abrasive modular system is the ideal choice for the highest levels of finishing on "hi-gloss" panels. The two long transversal belts perfectly prepare the pieces for mechanical finishing and polishing processes.

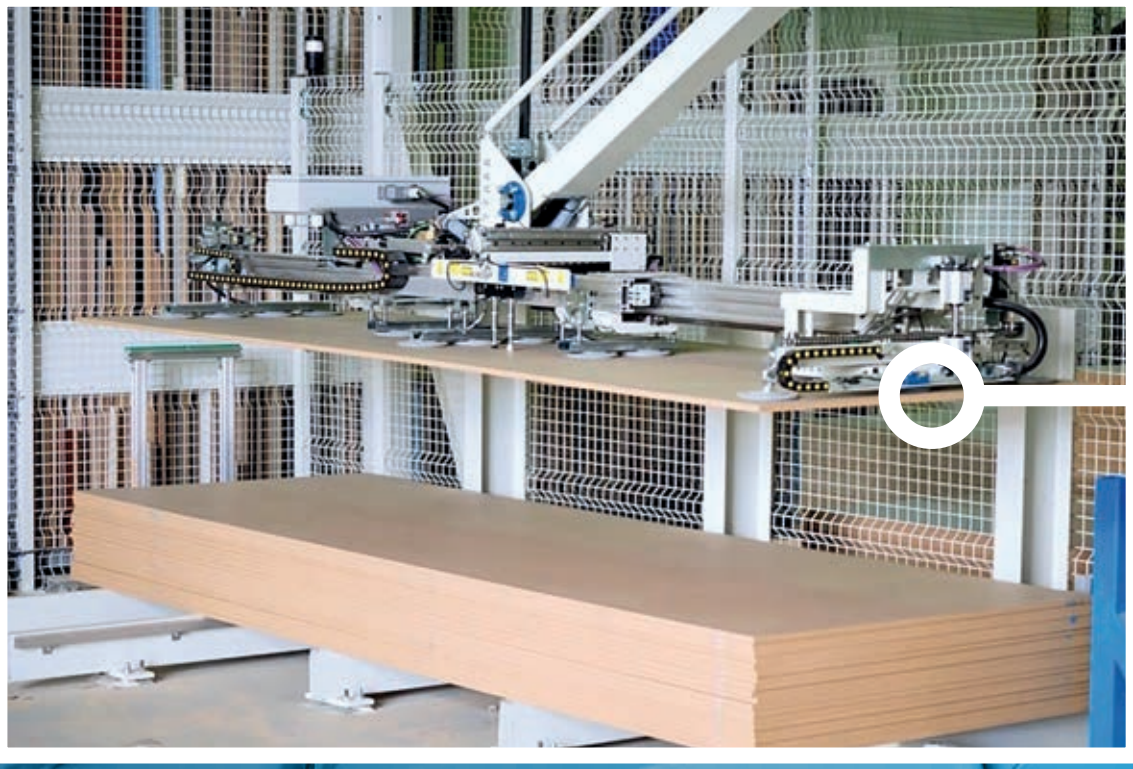
All the machinery is integrated with IMOS company software.

As Mr. Loc explains, the decision to select SCM as its main partner in the design and production of one of the most important production plants in the country depended on the extensive and varied range of products that SCM could offer. For ALC Corporation, it was possible to interact with a single supplier and partner in the creation of a genuine "turnkey" factory and for all the plant's machining requirements, from the handling of raw materials up to the packaging of the end product. Having a single provider made the production process research stage considerably easier, thus directly avoiding any misunderstandings that could arise when various suppliers are involved on the same job. Furthermore, having SCM as a single partner made the integration of state-of-the-art technologies much easier with the company management software and, subsequently, the service and spare parts management.

The ability of SCM and the Vietnamese distributor "Vetta" to provide a fast, effective service, already tried and tested over many years at the original production site, played a key role. According to Mr. Loc, however, the determining factor was the mutual understanding between the two companies: ALC Corporation's production needs were carefully examined and the factory was custom designed for the success of the Casta brand.

INCREASINGLY SMART **FURNITURE WITH FLEXSTORE**

How to deal with the high costs and waste resulting from the processing of small lots? Cabinet Systems succeeded in the enterprise after addressing experts from SCM Australia. A significant investment for a company of its size, but which immediately had a great return



Flexstore Storage Handling System allows integration with beam saws, Cnc nesting machining centres and labeling stations

When it came time to relocate to a new factory, Ben Fatchen of Cabinet Systems decided to use the opportunity to reassess their production and manufacturing processes. Needing to increase both production and efficiency, Ben worked with SCM Group Australia to come up with a solution that would address the problems they were experiencing with small batch processing and waste costs.
"At first we were considering adding another nesting machine to the factory, however the more we heard about **Flexstore**, the more we realised it was an option really worth considering," said Ben. "The idea of a second nesting machine soon became obsolete."

Optimised to handle different sized panels, the **Flexstore Storage Handling System** allows integration with beam saws, Cnc nesting machining centres and labeling stations to improve productivity and reduce the costs associated with materials handling. "Once we realised Flexstore would allow a CNC to run continuously, it was an easy choice to make," said Ben. "Combining our new Flexstore system with a new **morbidelli universal** (equivalent model currently in range: **morbidelli n200**) CNC quickly gave us significant savings on both time and handling costs."
In the Cabinet Systems factory, the **Flexstore** Storage System has been set up to communicate seamlessly with the morbidelli so that the following day's work can be prepared overnight, helping to reduce downtime. Multiple sheet sizes of the same material can also be prepared, meaning no interruption to workflow throughout the day. "We've also incorporated a SCM cyflex hp drilling machine (equivalent model currently in range: **morbidelli cx220**) to perform our secondary processes," said Ben. "This has allowed us to value add to our flatpack options and helps to take some of the pressure off the nesting process."

Being able to handle multiple sheet sizes of the same material has solved Cabinet Systems' initial small batch processing problems. "The waste from

small batch cuts was huge and needed a lot of handling, so it was a very expensive process for us," said Ben. "Flexstore allows us to change sheet sizes on the fly so we can handle just in time orders easily. This has drastically reduced our waste, we're saving around 15-20 square metres of material each week. When you combine this with the labour costs involved in handling the waste, it's a substantial saving."

"We took a big leap of faith in entrusting SCM Group Australia with such a large part of our business. For a company of our size, this has been a major investment," said Ben. "We've had a lot of positive interaction with SCM Group Australia both throughout the sales process and after installation. Everyone made a major contribution in making sure it would work for us, and that's a huge testament to the way SCM Group Australia conducts their business."

FUTURISTIC TECHNOLOGIES FOR TIMELESS FURNISHINGS

SCM with Balestrini meets the specific needs of a leader in design furniture

Visiting the Giorgetti factory is always an exciting moment. A historical organisation dating back over a hundred years and one of the most important brands in made in Italy furniture. On this occasion we are here to run a reportage on the **balestrini idea** machining centre that has been operational at the company since last year. We are welcomed by the **General Manager, Fausto Citterio** who talks to us about this high tech. solution in the context of a reality - the 4.0 Industry - in which he is enthusiastically investing a great deal.

SCM is a long-standing supplier to this company with its Balestrini models. "We have invested in this new machining centre - confirms Citterio - making the most of the tax relief offered by the 4.0 Plan, with a view to using it for the research centre and dedicating it, beforehand, to the prototyping stage. Nowadays, the procedure for creating prototypes differs greatly from the past: we start with drawings and renderings by the architects which means we can rapidly develop machine programs and, as a result, a highly evolved piece is produced. Not so many years ago, we would have started out with a cardboard shape, something that was just a sketch. Nowadays, the first prototype already closely resembles the finished piece both in terms of material and shapes". The company also uses a 3D printer before sending the rendering to the machine.

"The younger members of staff who have replaced those recently retired are much more familiar with designing on evolved tools. While I am confident that Giorgetti in ten, fifteen years time will still be selling its furniture, I am not so sure that there will still be the skills to carry out this kind of work. This is why it is important to train young people. So, we have estab-

lished close. on-going links with a school as part of the work placement project: the youngsters in the laboratory are all young and, when the students visit the company we explain to them that those working for us are driving machines that cost more than a Ferrari".

Giorgetti also underwent a move from artisan work to a more industrial production method. "The care and raw materials have not changed because the presence of solid wood in the Giorgetti collections has remained unaltered - continues Citterio -. Its processing method has definitely changed. We now achieve shapes that are extreme even if there is still a certain number of items that cannot be produced at industrial level and need to be shaped by hand. It is important for us to create a product that can be produced at industrial level with a high artisan content. So, SCM machines are an essential part of this mission in our company. "Technology becomes essential, not only because the new generation is much more in tune with evolved working modes, but also because it allows us to grow in precision and speed".
With this in mind, Giorgetti made a number of different investments last year. "We purchased machinery to include in the production systems and, as well as this integration, a new organisation was established which allows us to work better, managing relations with suppliers, the integration between the machines and big data, benefiting from the possibility of mapping the warehouse and work progress, unloading, pieces, storage management and everything linked to it. At the current time we are working to integrate the machines with one another. Being slim line allows us to free up resources to dedicate to core business work. When selecting our latest investment, **balestrini idea**, SCM see med to be more in step with these current needs".
Freedom in prototyping. Generational change, change of skills and change of approach: so the need to equip ourselves with the right tools that are useful and correct in ensuring these talents can express themselves. "The current operator - continues Citterio - was head of the laboratory, bearing in mind that we had decided to focus on a young person to change the production approach, his best skill was his all-round knowledge of so many of our processes and process software. We have invested in a numerical control machining centre that gave this person the chance to work to the best of his ability, increasing precision so that we had a product that was as close as possible to the original in as short a time as possible. The production of a new armchair was introduced last year and its prototype involved the use of the production machines. This is why we felt it was essential to **introduce a reliable machining centre like to balestrini idea into the prototype department: thanks to its speed and flexibility, we can achieve prototypes and relative production processes, and subsequently integrate them easily into the actual production process."**
Balestrini idea is our compact machining centre fully fitted with SCM technology, like the liquid cooled electro-spindles and the extraction worktable.

The added value that the machine provides to the prototype process is the optional "lathe axis", a centre/tailstock device that allows the entire perimeter of the piece to be worked: this saves time with fixturing, the construction of templates, programming and adjusting at the end stage of the prototype finishing. "This solution has given us a chance to perform a series of processings that have improved the outcome even at production level. Today, if we are talking about SCM and Balestrini models it is because

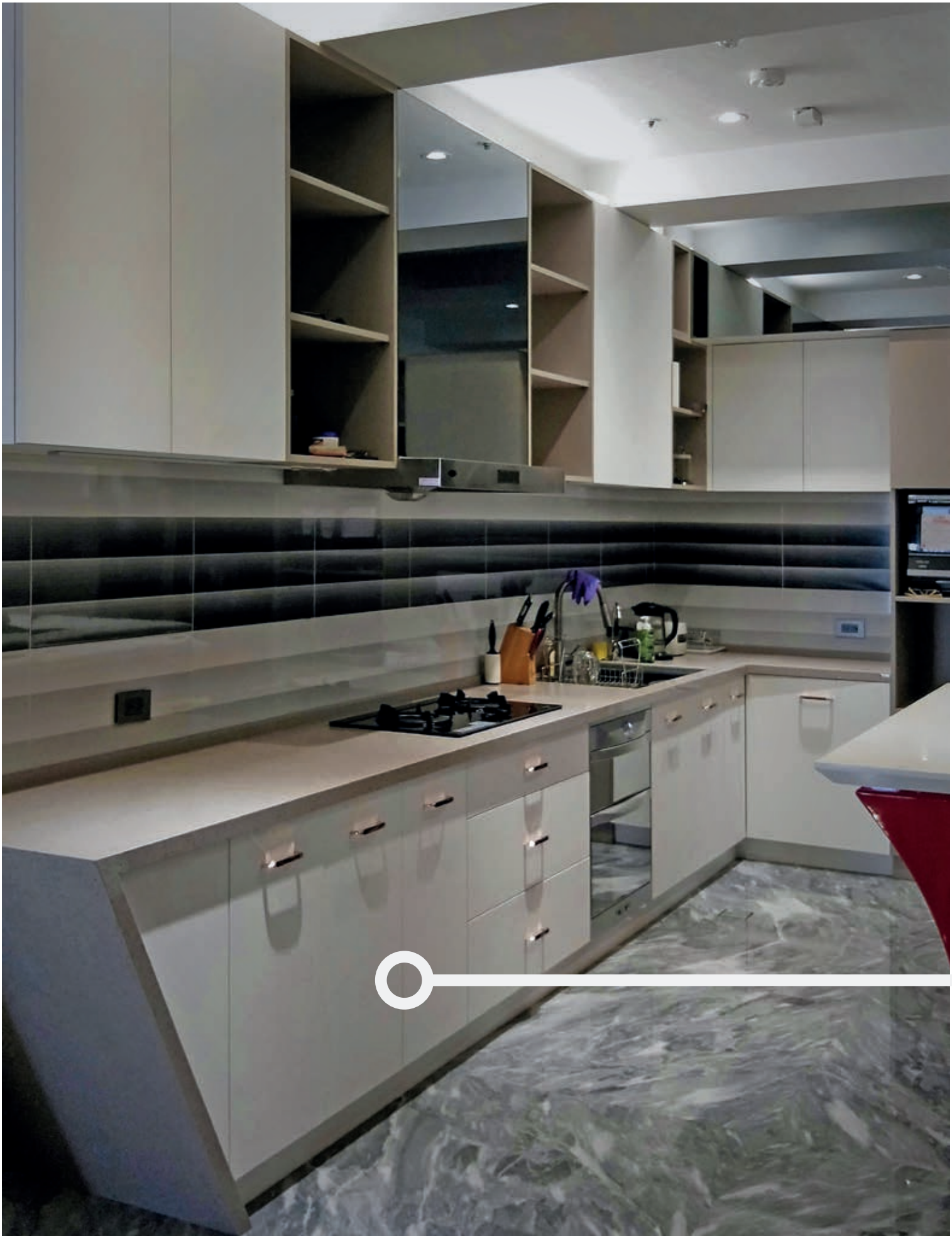
they are a reliable partner with a lengthy history and have been around for so long. SCM's strength as well as its intelligence in embracing the balestrini brand after buying out the company of the same name, was to maintain all the skills, technology and experience matured by such an important local organisation and with a series of essential positive aspects to create and develop top quality machines".

Credits:
Pietro Ferrari
for L'Industria del Mobile

LAI JIAWEN, THE ENLIGHTENED BUSINESSWOMAN WHO IS LEADING THE WAY FORWARD IN THE FURNITURE BUSINESS

Interview with the founder of JDL, Lai Jaiwen, who reveals how she managed to successfully stand out in Taiwan in such a fierce and strongly male-dominated sector, such as the furniture industry. She entrusted herself to SCM's experience in order to expand her business. SCM drew up a project of machinery and automated cells for her factory in Taichung, that are some of the most advanced in the entire country.

Mrs **Lai Jiawen** visiting the SCM headquarters in Rimini during the 2019 Open House. With her, from the left, from SCM:
Carlo Ferretti, Product Manager, **Wang XingYang**, Area Manager for East China and Taiwan, **Marco Rampichini**, Regional Manager, **Marco Battilani**, Product Area Manager, and the Country Manager **Damiano Bragie**.



In 2013, when the concept of "customisation" was first launched in Mainland China, we conducted numerous interviews with custom designed furniture manufacturers in Taiwan. Today, after six years, the custom designed furniture industry is growing rapidly in this geographical area. Even all the brands which tend to mass produce also partially play the "customisation" card. Custom designed furniture manufacturers in the country, on the other hand, with a tendency to increasingly meet the individual needs of a client are now taking a more complete and solid approach. JDL is the most representative brand in this group.

Mrs **Lai Jaiwen**, founder of JDL International had a challenging childhood which played its part in forming her resourceful and persevering character that so distinguishes her, as she understood from an early age just how difficult it is for the middle class to have a warm, decent home. Basing itself on the motto **"Create a domestic lifestyle and present the beauty of life"** and guided by an almost spiritual force for its creativity, the JDL company, previously specialising in custom designed furniture for bathrooms, expanded its offer to the entire home: from bathroom furnishings to full kitchen furnishings.

JDL invested in a new **10 thousand square metre factory in Taichung** which helped greatly expand its market. Of late, there has been a slowdown in the growth rate across the entire furniture industry on Mainland China but the owner of JDL remains optimistic: "Our company has a pioneering soul" she tells us. "Commitment to meeting the most varied demands of the individual client is needed to stand out. The most important thing, for a middle class family as is the case for a luxury villa, is that our offer does not vary and we always aim to ensure comfort, warmth and convenience for each member of the family.

Due to a growing shortage in skilled workforce in the manufacturing industry, manufacturers need to turn to sophisticated, advanced technology to successfully compete. This is why JDL chose SCM to launch an almost pioneering business for this Asian market: one of the first factories in the country to be equipped with fully automated machinery and "intelligent" production plants for the furniture industry, for an investment of more than one million Yuan.

"The choice of high added value technology is essential", confirms Mrs Lai. SCM boasts more than 60 years of history and complete production lines as well as a professional, considerate team. This is the best plant that could have been devised for JDL".

In January 2019, Mrs Lai was invited to the SCM headquarters in Rimini, Italy and this visit further convinced her of just how advanced SCM technology is. The businesswoman and SCM managers sealed a contract to purchase a production line with solutions for cutting, nesting, milling, sanding, spray glue application, membrane press and waste trimming. And looking to the future, JDL intends to develop an across-the-board implementation of fully automated SCM production lines in its factories.

It also plans to transform the Taichung factory into a showroom to open it up to businesses in the furniture industry in Taiwan and display what is, today, one of the most advanced production lines in this division. Yet another excellent promotional platform for SCM in this market.

Credits: Wendi Wei for Panels & Furniture Asia

A moment of the last Interzum Fair which once again saw SCM technologies as protagonists

PASSIONATE ABOUT JOINERY

"You need to put passion into everything you do; that's the only way to do it well" These are the words Hermann Merz uses to underline what makes his activity stand apart from the crowd. Whether it's the relationship with workers or clients, or investment in technology, master joiners put their whole selves into their work by placing people at the centre.

I got to the meeting at the Merz joinery workshop in Aichach in Bavaria, a few minutes ahead of schedule. But here respect is shown for other people's time and I was not kept waiting. A few moments before the managing director arrived, an employee led me across an incredibly large showroom before climbing the outstanding glass and wood staircase that leads to the penthouse". Once up there, I sat down and spotted an enormous kitchen on display. It had every accessory you could imagine. Remarkable! Frontal pieces with no handles, everywhere I looked. While I imagined that everything opened electrically with a simple touch (as clearly it did) Hermann Merz appeared.

I know from a few preliminary conversations that the master joiner had changed a number of things in the company, which is precisely why I was visiting. As a result, I thought I would be meeting with someone stressed, always with his smartphone to hand and an eye on the clock. I couldn't have been more wrong. He welcomed me warmly with a friendly smile and a firm handshake and we started talking straight away. Initially, the main reason behind my visit to the workshop, the state-of-the-art production technology, took a back seat.

Hermann Merz told me in which direction he feels client demand will

head in the joinery industry and how he intends to configure his company in the future in line with this scenario.

Merz splits potential clients into two groups. Price can be their key factor so they are simply looking for something low cost. "That is not our target market". Or we are talking about something unusual and exclusive. This is the ideal environment for the master joiner, who states: "Clients are increasingly turning to the web to take an initial look. But then they want to get a closer look, try out the product and get a feel for it. Anyone without a showroom, in my opinion, will pay the consequences in the long run". This is why Merz expanded his showroom last year, bringing it to 1,500 m². This is where we can show off everything the company has to offer: furniture and accessories for quality interiors. kitchens, bedroom furniture, work environments and internally produced stairs and doors for homes.

The joinery team includes 24 employees, six of whom are apprentices and three master joiners. "Each individual colleague is essential. It is like a football team and applies to each and every position, from the manager to the person doing the cleaning. Only together are we great".
As a result, Hermann Merz and his wife Monika do everything they can to provide their employees in the workshop and office with an ideal, modern work environment: "On the one hand it is extremely difficult to find a valid workforce and, on the other, we would like to ensure that the older members of staff stay with us as long as possible and in good health, providing us with their priceless skills. Obviously, training also plays a key role for us".

Last year, along with a considerable expansion of the offices, there was a complete reconfiguration of production. We aim to achieve continuity and automated processes from design right up to production. In this context, Hermann Merz highlights: "We invest in machinery and software in order to expand with the same number of employees and hope to be equipped to deal with future challenges". On the subject of the future: His son Mathias (25) is a fundamental figure. He is the fourth generation in the family business and has already made a significant contribution in the transition towards new technology.

For a number of years, Hermann Merz has focused on his trustworthy partnership with SCM, investing in the most up-to-date technology.

The heart of the new production is the **morbidelli n100** CNC machining centre with aluminium surface and 4.3 x 2.1 m work field; milling, sheet cutting and drilling work is all done on a single machine.

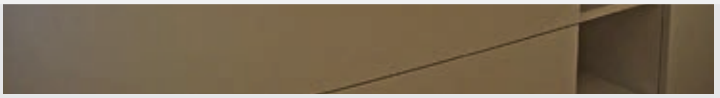
This machine is integrated with an automatic magazine which deals with unmanned preparation of incoming pieces, including labelling. Once the work is complete, the components of the piece of furniture are unloaded from the machine and are ready for the edge machining.

Merz also invested in this field: the new SCM **stefani kd** edge bander has an automatic return of panels and is fitted with **AirFusion+**, gluing technology to melt the laser edging with hot air.

The new **morbidelli m200** CNC 5-axis machining centre also offers the joinery workshop complete freedom and flexibility for any solid wood and panel processing.

Continuity is also the key word for the SCM digital solutions which, as in the case of Merz, with the aid of MSL (Maestro Scripting Language) language, allow for a complete compatibility with all the third party CAD/CAM design software.

Text and photos credits: Christian Närdemann, BM 5/2019



In his 600 m² terrace showroom, **Hermann Merz** offers around 50 different enhancements for terraces. In the penthouse alongside (to the back) we find an amazing "active kitchen".

The heart of the production is SCM's CNC **morbidelli n100** machining centre.

Optimal flow of material in a reduced space: **morbidelli n100** is powered by the automatic magazine with pre-labelled panels. When the machining is finished, the individual components exit the machine via the outgoing conveyor (left) and are ready for the next processing.

The new SCM **stefani kd** edge bander has an automatic return of panels and is fitted with **AirFusion+** gluing technology to melt the laser edges with hot air.

Over the last year, Merz has further increased its production capacity thanks to the new **morbidelli m200** 5-axis CNC machining centre.

UTOPIAN **SOLUTION**

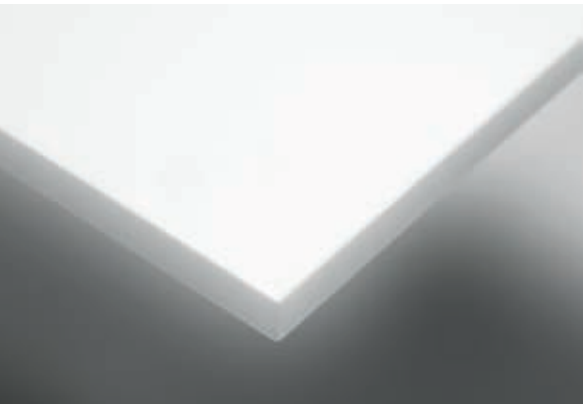
Utopia's stefani xd is equipped with some rather special features that provide edge perfection and additional benefits.

Making bathroom furniture is the preserve of perfectionists. There's water to contend with – lots of it – and there's steam. If your quality control isn't super tight, sooner or later water ingress will catch you out and the returns will flow back in a steady stream. At **Utopia Group**, they've developed quality control procedures that include examination of doors and panel components in microscopic detail, and that's given them a unique perspective on the machinery and processes that work and those that don't. The expectation of Utopia's dealer network is that perfection and reliability will come as standard, so when Director **David Conn** and Production Engineering Manager **John Phelps** invest in a new machine, they choose it carefully. Very carefully.

The introduction of a new Alpine White door might not sound like a major task for production but, as John Phelps reports, it proved to be the catalyst in a decision that resulted in the purchase of a brand new **stefani xd edgebander**. "We wanted a really good finish with no join between the edge and the face. The finish was good but it didn't seem to matter what we did with PUR, it wasn't quite good enough. That's when we started looking at **AirFusion+**.

"We went to the W exhibition and saw a number of machines in action. SCM's Stefani engineer, John Wilson, gave us a demonstration of AirFusion+. We liked what we saw. SCM could supply a machine that would run at 25m/min and the heat up time of SCM's Air Fusion system was just 30 seconds from cold to 350 degrees. Compared with other machines on the market, that was fast.

Typically, you'd expect a hot air unit to heat up to 300+ degrees in about 20 minutes – and we saw several of those in action as well. SCM had a stefani xd in stock at Thiene, and it was already equipped with the tooling we required and could be supplied in six weeks. We have other SCM machines in the factory and know them to be good, so we placed the order."



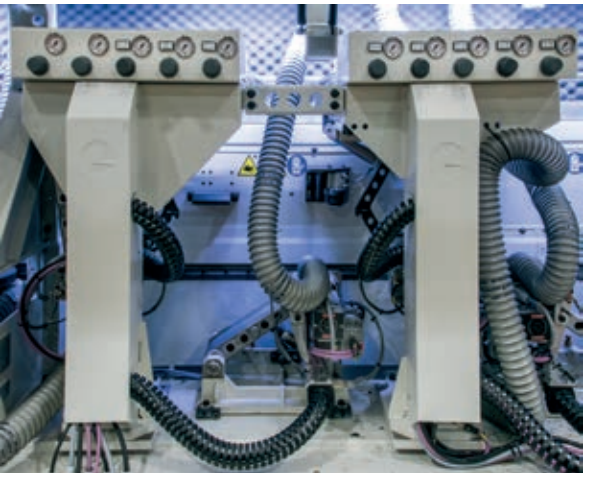
Utopia's stefani xd is equipped with some rather special features that not only provide the edge perfection Utopia wanted on their new flat Alpine White door, they also bring additional benefits.

Some readers may well remember the Innovation Award Stefani received for its SGP gluepot at Xylexpo around four years ago. Utopia's **stefani xd** has this, and it basically means the operator can switch from using PUR to the hot air '**AirFusion+**' glue system in under a minute. "The SGP gluepot has a fast purging system," explains engineer Jon Wilson. "The old systems needed wax to purge through, nitrogen gases, etc. The new system is a sealed gluepot, so the only thing exposed overnight is the roller. When the operator comes in on a morning, the only thing he needs to do is start up and heat the gluepot. The glue roller starts rotating. There's an automatic purge button on the software that will purge and scrape the skin off the glue roller. That takes 5-10 seconds, then it discharges the glue into a pot. Press the button again and the PUR is clean, warm enough and you're into full production. You can leave this overnight, or over a weekend. There is no need for waxing out processes until shutdown for Christmas."

One problem John Phelps really wanted to overcome was the edgebanding of doors that had been drilled ready to take hinge cups and components that had been grooved to accept mood lighting strips. Over the years, his operators had become skilled at taping over grooves and making plugs to fill gaps so nested components could be taken straight to the edgebander from the CNC router for finishing. But, as he says, it was taking a huge amount of time, often demanding additional work at the bench to ensure a standard of finish that would pass all Utopia's quality control checks.

What he really needed was a nesting lock that would ride over them and get it right every time. Many edgebanders can be equipped with nesting locks but Stefani's solution was both unique and particularly effective. John Wilson explains how it works: "With a nesting copier, if Utopia produces nested components on the CNC, they can machine the 35mm hinge inserts and the copiers at the top inside the edgebander don't dip into the panel and damage it. There's a locking system on the nesting copiers that follows the zero profile of the panel so it comes off consistent in its finish. It's a new system we've developed. We used to use three tracer wheels. The first and last tracer wheel would always sit on the panel and not dip in. We've now devised a locking system with a single tracer wheel that has a thickness of 20mm. It measures the panel off the centre and locks on the zero of the panel – the top or the bottom of the fascia – giving a perfect

Utopia's stefani xd is equipped with a unique nesting lock system that allows pre-drilled and grooved components to be edgebanded perfectly.



The edge is sprayed with NFly cooling solution before the panel goes through the machining section.

finish to the edge regardless of any drillings on the panel."

Also key to the decision on which machine to buy was the **stefani xd'**s ability to cope with smaller components. Officially, the smallest panel it's mean to be capable of edging is around 84mm, but the remarkable **stefani xd** is consistently making light work of 63mm components. "On the top pressure beam, there are no rubber rollers," explains Jon Wilson. "It's a belt system. The smallest

panel it is supposed to be capable of processing is around 84mm but Utopia is doing 63mm at the moment. It's holding it without twisting as it goes through the machine and it's still giving a 100% finish."

Every unit inside the **stefani xd** is NC controlled and set from a one-touch controller. There's no manual adjustment to be done inside the machine – and that's a feature that was particularly important to Utopia. Even if production needs to alternate between flat panels and grain-effect panels, the axes move the tooling and it's easy to change the parameters by as little as 0.1 of a micron to accommodate different panel thicknesses. As the panel enters the machine, an LPZ-2

anti adhesive spray is applied to the top and bottom before it goes through a pre-milling section that prepares the board in readiness for tape application. Tape is supplied automatically from a multi-roll magazine and feeds through the AirFusion+ or the PUR system, depending on the bonding you want to use. Channel one is loaded with edging for **AirFusion+**, leaving the second channel free for ABS or PVC to be applied with PUR via the SGP gluepot. Next, pressure rollers force the melted edge into the panel and over the edges, top and bottom. It's then sprayed with an **NFly cooling solution** that cools the polyurethane prior to it going through the machining section, so you're not machining soft edging and can create a precise finish.

The panel then goes through to the end trim process which cuts the front and back, then the top and bottom. Utopia's machine is equipped with a multi-function tool that allows the operator to switch from 2mm, to 1mm or 0.8mm at the touch of a button. The one-touch controller automatically changes the radius of the tool. The edge scrapers are at the back of the machine and they remove a 0.1-0.2mm profile – just enough to get rid of cutter marks left by the four-wing cutter in the ED system tool. Then the panel passes through a flat glue scraper that removes excess residue before the panel reaches the buffer sections that polish and blend it using LP163 solution. "LP163 is a Riepe solution, but we're doing tests with the Ostermann all-in-one solution that is alcohol-based and evaporates off the panel as it comes off," says Jon Wilson. "When the panel comes off the machine, there's no residue left on the protective plastic film. It cleans the panel and evaporates into the air."

And herein lies another problem Utopia's stefani xd addresses nicely: there's a flat copier on the corner rounder rather than a rotary copier that might rip the protective film from the surface of the panel. The edge is sprayed with the slipping agent, N-Fly, to aid finishing, so when the panel comes off the machine it's ready for the fitter to remove the film.

John Phelps is delighted with SCM and with the new Stefani. "We've always had a good quality finish from SCM machines and they are very reliable," he says. "We have one machine that's knocking on 20 years old and its probably one of the best edgebanders we've got. We always get tremendous support from Jon Wilson and the training we've received with this machine has been first rate. It's covered the software and programming, mechanical setup of the stations, removing tools, maintenance, greasing points – anything the guys can check for or fault find – and concluded with two days of full production so we knew everything was 100%. You can't ask much more than that can you?"

Credits: Melvyn Earle for Furniture Journal

WITH SCM, YACHTLINE "NAVIGATES" ON COURSE TO SUCCESS

The establishment of a factory specialised in "premium" class furniture (top of the range) is an almost impossible feat. Apart from the large investments in modern, high-precision machinery, the hiring of qualified professionals and the development of technologies for processing different materials, it is essential to create a product that meets modern-day market demands from a design and additional services point of view. This is the "course" followed by Yachtline, which successfully operates in Gribki, near Moscow.

The 5 axes morbidelli m100 CNC machining centre produces 3D pieces guaranteeing precision throughout the entire process stage as well as providing a top quality finishing.

The dmc sd 60 wide belt sander and the sergiani gs 90 press allow to prepare surfaces optimally so that they are smooth and homogeneous

From a small carpentry workshop to a successful company specialising in luxury furniture. Established in 2007, Yachtline started expanding its horizons early on and, together with their furniture production, introduced another highly profitable activity, that of customising yachts and motor boats. In Russia, between 2007/2009, the second-hand yacht market grew, resulting in a demand from the new owners to have restyling and interior restoration work done. Yachtline rapidly grew in popularity with yachtsmen, acquiring numerous new clients thanks to the excellent quality of their work. At the same time, following different individual projects for this specific sector, the Russian company acquired further experience in the processing of wood and other materials (leather, stone, brass, etc.).

The state-of-the-art technologies adopted by this company mean they can also produce **outdoor furniture**, a very particular type of product, as well as being complex to create because it has to withstand bad weather. Considerable attention, therefore, needs to be placed on raw materials, the types of wood and processing technologies to maintain high quality and extremely accurate production. Yachtline made a success of this venture thanks to the experience acquired over time at industrial level and, in the space of a few years, recorded a rapid increase in demand from the market. Indeed, such high demand, that the company needed to increase its production capacity. As a result, the company decided to renovate its factory in order to optimise its processes for creating both indoor and outdoor furniture.

In 2015, considerable investments were made to expand the plant, now covering 8,000 square metres overall, and equip it with even more state-of-the-art machinery. An expansion that allowed for an increase in production volumes and a diversification in product varieties. In 2017, the new collection for the outdoor range of furniture was presented (garden furniture) in teak, iroko wood and ash. For its indoor furniture production, Yachtline uses a range of quality, naturally veneered woods - hickory, wenge, rosewood, eucalyptus, zebra wood, etc.

As the owner says, the company entrusted itself to the state-of-the-art technologies and consolidated know-how of a world leading manufacturer like SCM as soon as it realised the need to expand its production. “We

chose this Italian "player" because we consider it a strategic and highly reliable partner, as we have had the opportunity to clearly observe over these years of fruitful collaboration.
The processing of more complex pieces and the milling and drilling of solid wood are done with a numerically controlled 5 axes **morbidelli m100** machining centre which produces 3D pieces guaranteeing precision throughout the entire process stage as well as providing a top quality finishing.
An important process for the company is the preparation of the surfaces of elements for the following application stage of a base of oil. The surfaces in question need to be smooth and even, so completely free of any imperfections such as undulations, excessive roughness or raised fibres which represent unacceptable defects for the subsequent protective and decorative coating of the pieces being processed and, soon to be high quality furniture. A **dmc sd 60** (re-branding model of sandya 600) was selected for this purpose which, thanks to its robust supporting and ergonomic structure, powerful motorisation and some of the most high performing calibrator and sanding units, excels in achieving top quality finishings for the furniture sector.

The other SCM technologies used at the Yachtline plant include a **sergiani gs 90** press, a **superset nt** throughfeed moulder, a **class si 300** circular saw and a **class f 520** planer.
Thanks to such technologically advanced equipment, the quality of Yachtline products, as well as other aspects, place the company on a par with the most important European manufacturers with decades of experience in the industry. But this dynamic enterprise is not resting on its laurels: the company plans to increase sales not only in Russia but to explore new markets. Yachtline products are currently exported to Germany, Switzerland, Georgia, Kazakhstan and Cyprus, but its industrial plan foresees expansion into more strategic European markets in the coming years.

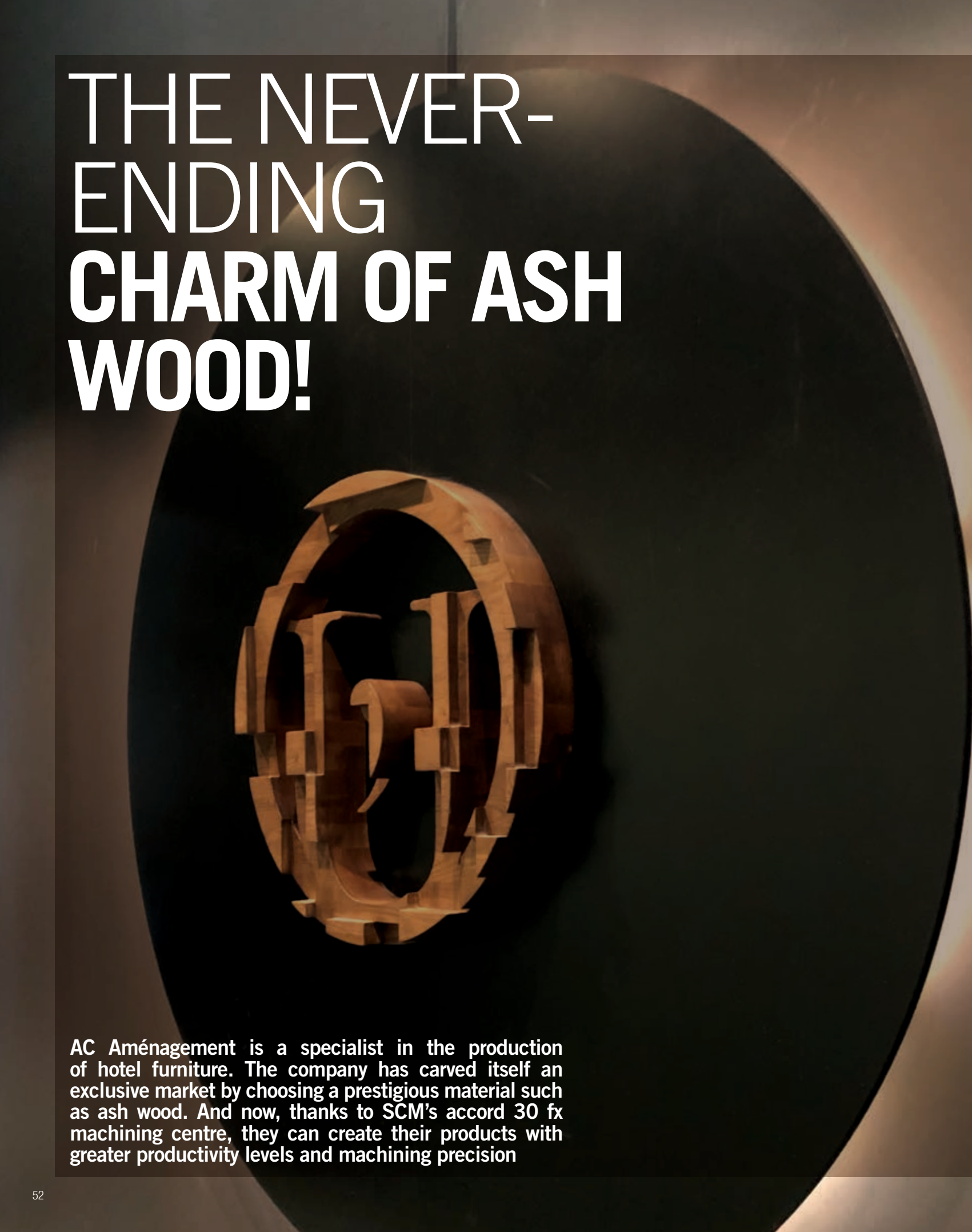
Credits: Alexandr Tambi for Lesprominform

AC AMÉNAGEMENT (FRANCE)
BÜHNENCONCEPT GMBH (GERMANY)
CHERWELL (UNITED ARAB EMIRATES)
JPMA GLOBAL (CANADA)

CONTRACT FURNITURE

scm

THE NEVER-ENDING **CHARM OF ASH WOOD!**



AC Aménagement is a specialist in the production of hotel furniture. The company has carved itself an exclusive market by choosing a prestigious material such as ash wood. And now, thanks to SCM's accord 30 fx machining centre, they can create their products with greater productivity levels and machining precision


HÔTEL CHANTEREYNE

"Since we set up our company, we have experienced a growth of 110%. Every year we double our turnover", explains **Camille Frenay**, the young carpenter who set up the furniture-making company, **AC Aménagement**, in Saint-Etienne-de-Saint-Geoirs, half-way between Grenoble and Lyon. From the outset the aim of this entrepreneur was to design and construct furniture for hotels in solid wood. His choice proved itself to be correct. Frenay is in fact able to stand out against his competitors in a very tough market, where companies from other countries (Poland and Portugal, in particular), are able to keep their prices very low due to lower production costs. "**We use 500 square metres of ash wood per year**. This quantity accounts for about 80% of our production. The rest is made with oak and both woods come from the forests of Franche-Comté and from the Doubs department, both with sustainable forest management certifications. We differ from our competitors for the quality of our creations and for the 100% French production. This guarantees, amongst other things, a **faultless support service**, that foreign companies cannot provide", continues Camille Frenay. The secret of a growing success, probably, because the company is submerged in orders and has decided to restructure itself very quickly, to respond to the growing number of requests from the market.

AC Aménagement soon found that the space it had was no longer enough and last year was forced to move to a former sawmill, to install a larger machine shop and achieve higher productivity levels. "When I think that I started alone, with a small combination machine… How far we've come!", recalls Camille Frenay. To buy new machines he turned to JPM Diffusion, SCM's long-time dealer for the French market. "They are the point of reference for the region", confirms Camille Frenay. Last spring, through JPM Diffusion, AC Aménagement purchased an **accord 30 fx** machining centre, with double combined machining unit with three and five axis. "We had a small machining centre built in 2009, but it was slightly dated. We were looking for a solution that could guarantee higher productivity levels and precision. We chose the accord 30 fx and today we can't do without this latest generation machining centre".

During the installation in the new AC Aménagement plant, Alain Cœur, SCM's sales manager for this area of France, was onsite to make sure that everything was carried out to the highest standards. The company operators were then trained by SCM technicians. Thanks to the customisation of this machining centre with a working surface of 6,380x1,680 mm and the two routing units, the furniture maker saves time by not having to change tools, achieving greater precision and optimisation. "This accord 30 fx can be used to perform any type of machining from power routing, with five interpolating axis, to high capacity drilling, as well as machining

Alain Coeur, SCM Product Area Manager, with Camille Frenay, CEO AC Aménagement and the dealer of Jpm Diffusion Thierry Fauchon

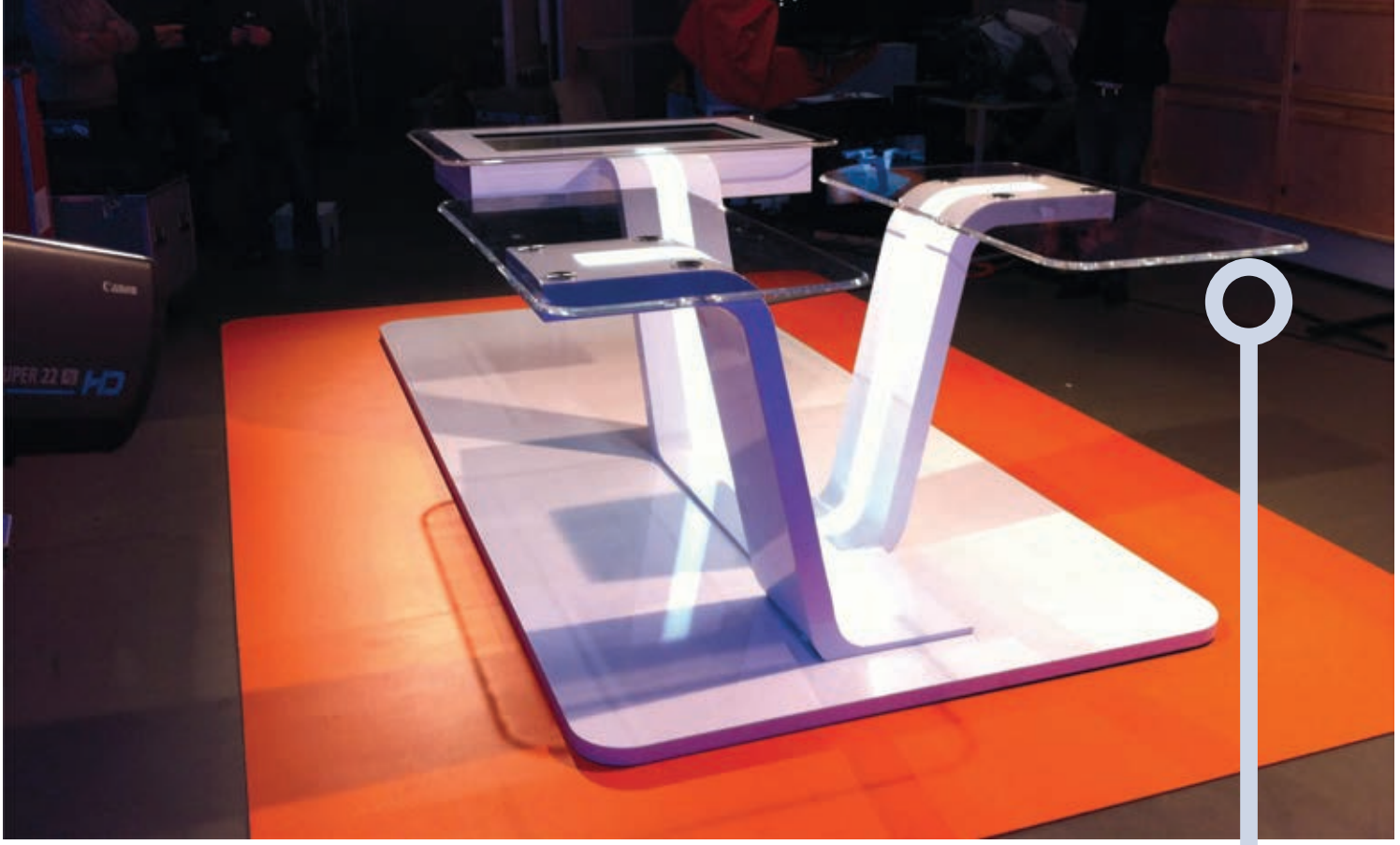
jambs with the BRC unit. It is without a doubt perfect for machining jambs, but also doors, stairs and other solid wood elements", explains Alain Cœur. The potential of this machining centre with automatic worktable and independent carriage, with numeric control, is extensive. Camille Frenay believes that he still has a long way to go before being able to use all its capacity. "We are very interested in learning about the CAM-CAD software, which will allow us to program the machine from its interface", explains Frenay.

Thanks to this SCM solution AC Aménagement has already produced furniture for the receptions and rooms of prestigious hotels such as the four-star Le Cercle in Cherbourg (in ash wood, olive wood and Valchromat), the four-star Best Western in Sélestat (in heat-treated ash wood) and the three-star Kyriad in Grenoble (in heat-treated oak and Valchromat). The company produces creations of extraordinary beauty!

Text Credits: Alice Heras for L'Agenceur
Photos credits: Ac Aménagement

A MORBIDELLI RIGHT ON TRACK... **READY FOR GO!**

You bet! These are words that Ullrich Lange, owner of the company, Bühnenconcept GmbH, specialising in the creation of TV studios and staging, has never expressed. Indeed, his company has been entrusted with designing TV studios and furnishings for this famous and well-loved TV show, as well as other TV productions enjoyed in both Germany and abroad. "Hallo Deutschland", "Drehscheibe", "Länderspiegel", "Frontal 21", are just a few examples that highlight the efficiency of this company specialising in staging, scenery and fitting out trade fairs held in Hohenstein-Ernstthal in Saxony



Founded initially in 1998 by U. Lange as a sole proprietorship, in 2000 a second company was established, the current day Bühnenconcept GmbH. Following the merger of the two companies in 2011, new premises, spanning 3,250 m² acquired in Hohenstein-Ernstthal where larger scale projects could be achieved, like those for the TV programmes mentioned above, to meet with high quality demands and in line with the "all inclusive" formula. This way the company designs, produces and fits out all in the same place.

The highly varied clientele of this company specialised in processing wood and plastics principally includes TV stations, decoration manufacturing companies, agencies, event organisers but also joinery workshops that purchase manufactured parts for all kinds of special decorations, furnishings and furniture.

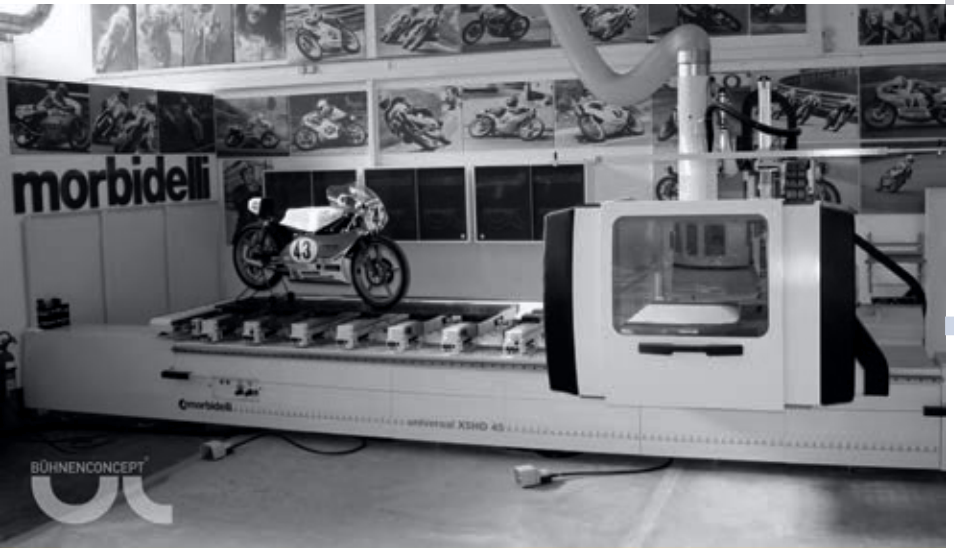
In order to stand apart from the traditional suppliers, Bühnenconcept U. Lange e.K. relies on state-of-the-art manufacturing and processing techniques. In specific terms, this allows them to produce special 3D work for the trade fair outfitting and decorations industry as well as furnishings and saunas to the highest standard of quality. On the subject of which, the 5-axis **morbidelli universal x5 hd** (equivalent model currently in the range: **morbidelli m100**) machining centre has undoubtedly proven itself to be an essential piece of machinery. As the CEO and "stage manager" Ullrich Lange says: "Using the morbidelli 5-axis numerical control means we can even meet the intense demands from modern digital TV. Thanks to this machining centre, our company has managed to expand its offer portfolio in several directions, allowing us to stay one-step ahead of our competitors especially with regard to special three-dimensional pieces. One of our key elements is speed, with short delivery times, combined with flexibility, particularly when dealing with special solutions. Thanks to this CNC technology, we have become even faster, more flexible with lower costs, and can now offer complete solutions. This is an important factor for our clientele. SCM is a long-standing partner of ours and one that is respected and esteemed for its assistance and consulting services, capable of providing a wide range of products and complete solutions."

One other important aspect for the CEO and his management team is the

fact that the company, thanks to the use of CNC technology, has a proven advantage over the competition. This means being faster, as the pieces receive a complete processing and there is no need for further processing. This undoubtedly produces better results from a company finance point of view compared to the past. An example of a show time-scale: in the past, a week of work was needed to achieve mediocre quality; nowadays, with CNC technology, three days is sufficient to produce first class quality pieces which can then be fitted with precision and ease producing a potential saving of 60%.

These are ideal requirements for the TV and trade fair industry where a certain amount of ostentation is always needed. On the subject of which, Bühnenconcept's CEO Ullrich Lange, adds: "The decision to purchase an SCM Group's machine, and more precisely, the morbidelli CNC machining centre, was abetted by this company's innovative modus operandi. Many innovations can also be found in the details on our CNC machine which the competition can certainly not boast about. So, I would do it all again!".

Text by Rudolf Bartl
Photos by Bühnenconcept GmbH



Technological innovation and racing motorcycles:
tthe two great passions of Giancarlo Morbidelli, founder of the same-named Pesaro-based company taken over by SCM in the Eighties.
The Morbidelli-branded bikes managed to win four world championships, beating industry giants on several occasions.

A "TURNKEY" SCM FACTORY

SCM has supplied to Cherwell, a Dubai-based company specialising in customised furnishings for residential and commercial buildings as many as 20 different technologies. The result was a significant improvement in product quality, combined with greater accuracy in the various processing phases and a considerable increase in productivity


CHERWELL

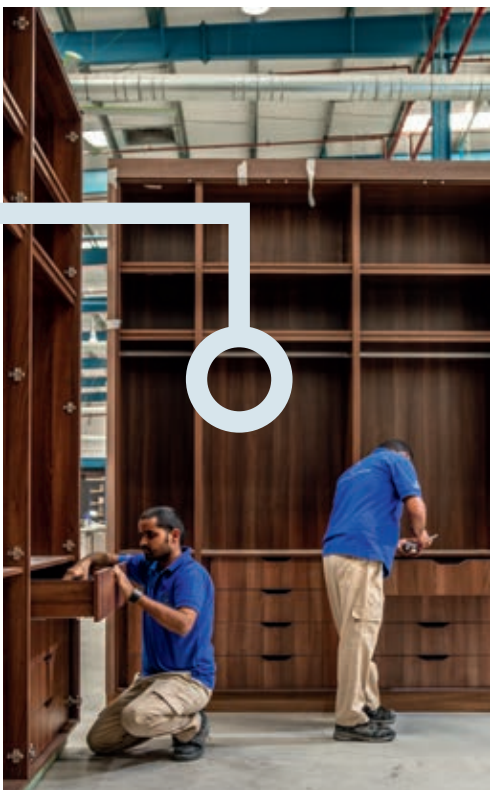
It all began in 2014 with a small company - Creations - producing quaint children's playhouses. The natural evolution and next stage of development meant the creation of **Cherwell** - bespoke interiors specialists based in Dubai, U.A.E. The enterprising company evolved by devising full ft-out and interiors for the residences of discerning clients. Today, Cherwell is a high-end joinery and ft out company specializing in the residential market.

According to **Tom Brooks**, Owner, Cherwell, it all comes down to what the company believes in the first place: producing quality, in an environmentally sustainable way with excellent client communication and the core values of investing in its workforce and loyal customers. These are Cherwell's keys to success. As such, their experienced team creates fantastic spaces for residential and commercial clients. Cherwell also have their own specialist joinery division who design and build truly custom kitchens, dressing rooms, bathrooms and loose and fixed furniture. This is complemented by their knowledgeable in-house contracting team who can execute all other required works to the expected Cherwell standard.

Working with small traditional machines, Cher-

From the left, Diego Piersanti, SCM Middle East Commercial Director, Luke Gray, Cherweel Production Director, and Tom Brooks, CEO and owner of the company

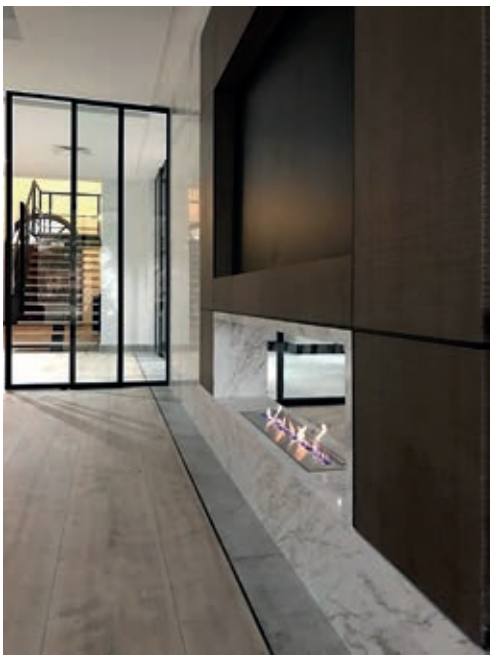
well were able to execute projects but were limited to an extent. According to Brooks, they contacted SCM and asked for more advanced technologies. **Diego Piersanti**, SCM Middle East Commercial Director, responded with a strategy for Cherwell's development plan and the rest is history. "Now have a state-of-the-art factory capable of delivering high quality in a short time thanks to our capacity and flexibility. Reliable technology gives us peace of mind and lets us focus completely on our company development and customers' satisfaction. Our operators feel confident working on easy-to-use equipment, and the possibility to work and to be integrated with third-party software makes the whole process very efficient and streamlined from the design office to the one ready for delivery," said Brooks.



SCM provided Cherwell with 20 different technologies. The beam saw **gabbiani pt** with integrated rear loading table and the **Flexcut** device (double-independent pusher) allows for incomparable flexibility and productivity. Cherwell has been able to enjoy increased productivity of up to 30 percent and space saving up to 20 percent owing to the simultaneous execution of both rip and cross cuts.
Also supplied was the edge bander **olimpic k 560**, which allows for a perfect joint line on account of the 'SGP' glue pot that features perfect dosing and a special spreading roller. The use of EVA and Polyurethane glue is made possible by the anti-adherent plasma treatment and a fast and simple glue changeover. As such, 12 mm solid wood lipping for panels up to 60mm thick is possible.

The throughfeed moulders **superset nt** with 7 heads (composition 31, 6+universal) allows for increased productivity as the system enables the operator to change tools and perform adjustments in just a few seconds, decreasing set-up times by up to twenty times. The new electronic control MOBILE PC also makes machine programming intuitive drastically, providing clear and precise information and reducing the possibility of human mistakes. The machine is configured to execute workpieces up
to 260 mm width for the finished section.

SCM also provided Cherwell with a 5 axis CNC **morbidelli m100** that has a 5.5m working area that allows the company to process doors with



maximum productivity thanks to the possibility to load/unload one side while the CNC is working in the other side. 5 axis also means the highest flexibility to support any design that projects may require.

According to Brooks, the introduction of a suite of SCM machines in a bespoke designed and purpose-built large facility has enabled Cherwell to work on bigger scale projects whilst not compromising quality. Having the latest technology has also meant they can keep a high level of design integrity whilst still looking at higher volume projects. This is an area that is often compromised when scale is introduced. With a one-stop shop with SCM, Cherwell now have machines from classical, through volume and specialist (5 axis). "Cherwell has always tried to offer our clients a high-quality product delivered in a timely fashion. SCM's machinery has helped us not only improve, quality and accuracy but also productivity. The fact that SCM offers a full suite of machines means that we only have to maintain one relationship for service, maintenance and spares which also goes a long way to minimizing down time. SCM was also very helpful in the design process for our facility, helping consider work flows," concluded Brooks.

Credits: Timber Design&Technology

DESIGN AND HIGH TECH **FOR UNIQUE RETAIL PREMISES**

A family run business that exports most of its production and has just turned fifty. JPMA Global are "outfitters" for retail sales premises with highly sophisticated customised creations. They have strong ties with SCM: 'The result of the finished product is just as important as the machine's performance and functioning when one decides to invest in new technology"

JPMA Global Inc. is a family run business based in Montreal, Canada, that employs more than 300 workers around the world. Established in 1968, it recently celebrated fifty years in the industry. The secret of their success lies in a product that artfully combines wood with other materials (mainly metal) to achieve custom-designed furnishings and installations and "turnkey" solutions for a mid-high client range with sophisticated tastes.

Looking at this company's creations, we can admire a **fine balance between design and practicality**. In fact, the aim is to create pleasant, elegant retail environments which are also functional for retail sales premises and that attract the client's attention at first glance, tempting them to purchase something. The most commonly used materials include MDF, pressed wood, plywood and solid wood panels though veneering is also applied to the panels as well as paint and staining treatment. Everything is custom produced at the factory in Montreal, from the project to delivery, although for certain kinds of work, a small number of trusted outsourced suppliers may be used.

The elegance that distinguishes JPMA Global's contract furnishings has also won over other markets as well as the Canadian one, mainly in the United States which covers 70% of exports, though there are also clients in Europe (10%) and other continents (5%).

Technology plays a key role in production, as does automation: with the exception of work that is more craftsmanship focused, where manual skills remain essential, in most cases, evolved technology is used to accelerate the pace of production. The 5-axis numerically controlled machining centres, edgebanders and automatic saws are some of the solutions which the JPMA Global team could not do without when working with wood. This is also the case with the internal plating line and the automated ones assigned to painting.
The speed and precision guaranteed by machines and automation plants, perfect communication between these and design software and planning models for an effective production are the main technological supports.

Over the last three years, JPMA has invested in numerous SCM products: a **superset tx** (topset xl pre-rebranding) throughfeed moulder, ideal for producing slabs, cornices, profiles and linear elements for windows, doors and furniture; a **morbidelli m600** machining centre with modular composition designed and developed to meet the needs of companies in the furnishing industry; a **gabbiani s 95** saw that stands out for its easy process handling and impeccable execution of the end cut, thanks to a perfect mix of machine interface and solid structure; a 5 axis **balestrini power** machining centre with an elevated workable cube, a work surface with rapid set-up and a CAD/CAM software that extols its performance.

"This technology has always helped us overcome any creativity limitations, improve our production methods and accelerate processes" **explains Giuseppe Paventi, founder of JPMA.** Opting for "made in Italy" machines was a source of great pride for this Italian businessman who moved to Canada at a young age. "Demonstrating what we are capable of manufacturing with this technology, produced in my homeland, is the greatest joy of all" he adds.

"The result of the finished product is just as important as the machine's performance and functioning when one decides to invest in a new technology" explains Paventi. "It is also true that if the supplier does not offer a back-end support, then it is better not to buy from them at all!".

A constant dedication to creativity, a strong passion for one's work, continuous control of product quality, combined with an effective and reliable customer service: the JPMA Global mission moves along this track: continuing to successfully unite craftsmanship and technology to create customised, refined furnishings for retail premises around the world.

ASCHFORD HANDICRAFTS LTD (NEW ZEALAND)
FALEGNAMERIA GRECO (ITALY)
GRUPO ESCATO (MEXICO)

DESIGN

scm

ASCHFORD E SCM, **AN "INTERTWINING" IN THE NAME OF TRADITION AND HIGH-TECH**

This family-run company has been manufacturing looms in traditional silver beech wood, in New Zealand, since 1934. Nowadays, this enterprise, Ashford Handicrafts Ltd., is a world leader in the industry and exports 90% of all it produces. Relations with SCM have permitted their clientele to achieve high levels of precision and considerably increase productivity. "We manufacture around 100 different products, each one comprising of sometimes more than 20 parts - explain the owners - so we need to concentrate on production methods that provide maximum efficiency, like numerical controlled lines and machining centres".

The attraction of a product, like the loom, that has accompanied humankind through its history, and the warmth and softness of the fabrics woven by this ancient tool. The history of **Ashford Handicrafts Ltd** began right here, more than eighty years ago, in one of the world's most famous countries for fine wools and natural fibres, New Zealand. Founded by Walter Ashford in 1934, it is now a world leader in the manufacture of **looms, spinning wheels and textile equipment**, most of which is produced using Southland Silver Beech, typically found in New Zealand. "Weaving the plot" of this family business are Richard Ashford, son of Walter, and his wife Elizabeth. Around thirty employees work alongside them, bound by a common goal of upholding a tradition, like weaving, that has been handed down over the centuries.

The Ashford looms are eco-sustainable, renewable and environmentally friendly thanks to the dedication shown by the owners towards waste recycling and a reduction in energy consumption, but above all, they are the result of significant R&D work: available in natural wood or finished with ecological water-based paint, they are designed for easy assembly as well as being a pleasure to use.

"Our products for textile crafts are aimed at hobbyists, for teaching purposes and working from home" confirm Richard and Elizabeth. "95% of our production is in solid wood while some parts are in MDF and veneered plywood".

The company exports more than 90% of its

looms to over 40 countries: with the exception of neighbouring Australia, all its other main markets are geographically distant, like Europe (especially Austria, Denmark, Finland, France, Germany and Italy), the United States, India, Taiwan and Thailand, Singapore and South Africa. The owners explain that their clientele is highly demanding, looking for top quality textile equipment that makes the work of their employees easier while increasing productivity. For a company like this one, which produces everything internally, it is essential to have quality performing machinery. "We manufacture around 100 different products, each one comprising of sometimes more than 20 parts - explain the owners - so we need to concentrate on production methods that provide maximum efficiency, like numerical controlled lines and machining centres".

In fact, the meeting with SCM whose technologies have ensured the achievement of high levels of precision as well as significant increases in production times, proved decisive. Overall, Ashford have chosen seven SCM machines, of which five are CNC machining centres. The most recent of these purchases, as Richard and Elizabeth showed us, is the **accord 30 fx**, one of SCM's best suited models for every kind of intense processing that requires a great deal of removal, maintaining high standards of accuracy and quality finishings. Glancing around the factory, we spot other various kinds of models with different functions: a **morbidelli n200** nesting machining centre (universal 2412 pre-re-branding), a **superset nt** throughfeed moulder, a **dmc eurosand** sanding and calibrating machine (model currently replaced by the **dmc eurosystem**) and other machinery for solid wood processing including the very first one every bought more than twenty years earlier, an scm routomat. The improved quality offered by these models, underlines the Ashford owners who have favoured the Made in Italy technology offered by SCM for many years, is the opportunity for a more accurate production of parts, as well as greater performance, less waste and increased safety, in line with the strictest regulations. "We have remained loyal to the SCM brand because their machinery offers a series of advantages such as the interchanging of parts, the quality of the tools and software, not to mention the training and excellent after-sales service provided by the Italian group and their dealer in New Zealand, Machine R Us".

Based on these excellent premises, the Ashford family continues to weave its future with the same passion, creativity and energy which have stood them apart from the outset. "We are looking at how to further increase productivity by investing in other CNC machining centres" explain Richard and Elizabeth proudly, before saying goodbye. High technology and innovation come together even in a antique work tool, but one with timeless charm.

MORE THAN JUST CARPENTERS

Andrea Greco and his father Fernando are modern and versatile craftsmen with a designer approach. They were granted patent rights for an innovative extension mechanism for solid wood tables. “Sometimes people seem to think that behind particularly 'clever' solutions there is a bunch of top-class engineers, while very often it's all done to 'simple' craftspeople. Today we need to be eclectic, know how to do different things and be ready to meet a variety of needs ".

The Italians have a saying, **“learn the art and put it aside”**, and we have often tried to grasp its meaning, to understand if there is any truth in this old adage or not. We could start an endless discussion about which is more “profitable” from an economical point of view: to specialise in a specific field or learn the greatest number of trades. The truth is that there is no universal answer, and that the topic is completely subjective. Today, we will tell **the story of two carpenters**, father and son, who have turned this saying into a way of life.

We met **Andrea Greco** and his father **Fernando** in their carpentry workshop, specialised in **nautical work...but not just this!** Very active in the shipyards of Cattolica and surrounding ports, and valued for its ability to satisfy the most exacting “fitting-out requests”, the Greco carpentry business started with Andrea's father, the first in the family to take on this trade. **An adventure that began in Galatina in 1975**, when Fernando, then 13 years old, set out as an apprentice at a workshop in the Apulian town to learn the rudiments of carpentry, those without which you cannot take all the subsequent steps: sweep and clean the cobwebs from the workshop! “After a few years of experience, I progressed to straightening nails”, tells Fernando, “this was normal practice because nails longer than 4 cm had a certain cost, while the apprentice didn't cost anything”. He was not paid by the employer, on the contrary, it was his parents who paid the employer to teach a trade to their son, obviously with payment in kind: cheese, eggs, meat, oil...

Little by little Fernando made progress and started to clean the wood, remove nails, cut with the circular saw... As he himself says, when a boy begins his apprenticeship, there was no set time for his first cut. The old

DESIGN - **FALEGNAMERIA GRECO -** ITALY

masters were protective of their trade and never taught anything explicitly. It was up to the boy to be smart and **learn with his eyes** and then, when the master wasn't there, take advantage and make a dovetail, paint a workpiece or sharpen a chisel. The kinds of task that awaited apprentice carpenters depended greatly on the workshop in which they worked; there were some carpentry workshops in which they made doors, others in which they made skirting boards and still others in which they carried out one kind of repair rather than another, and so the rudiments that they learned would also differ. Passing from one carpentry workshop to another in search of better pay or more specific knowledge, they acquired different skills and enriched their educational background.
Even when the others rested at the weekend, the boys had to return to clean the workshop, and yet **the chance of learning such an ancient and precious art** was enough of a push to convince them to continue their educational path. Fernando's path through the local carpentry workshops lasted ten years, as he himself summarises: "If you were good and knew what you were doing, sooner or later a local carpenter would contact you. As the place in which you started to work offered zero Lira, perhaps the new carpentry workshop would offer 1 Lira, and little by little you advanced".

These small steps forward took Fernando towards his first direct contact with customers; handling their work from start to finish, more than one person suggested that it was time to set up by himself, so he decided to look for a place where he could install a **combination machine**. He continued to work as an employee at the current workshop during the week, while he worked for himself at the weekend. The word spread a little at a time and he got more and more work, until the workload was enough to push him to continue with just his own business. **The push that we spoke of earlier**, that impels the boys to continue their apprenticeship, was so strong for Fernando that, despite his active business, he then decided to **move up north** to further advance his career as a carpenter. "We moved up north for the greater opportunities and better economic conditions that those parts can offer. We started working for a structured company, in which we were able to make ourselves known and be appreciated; it was a positive experience that lasted 15 years.

The company mainly worked in the **nautical sector**, and we had the chance to learn a great deal about it: **from making the model to structurally building the whole hull**, over the years we have learnt all of the stages involved in creating a boat." With the crisis, most of the shipyard closed its doors, and father and son found themselves out of work, albeit with a little money in their pockets from redundancy and other payments. But there were still many customers in need of maintenance work, and even shipowners did not know how to repair their boats, so in the end, we were asked: "Since you know the sector and the work, why not come to do maintenance and various other jobs?". Helped by a little healthy entrepreneurial spirit, the SCM joinery machines and word of mouth from satisfied customers, their new business started.
"The greatest satisfaction came when we modified million-Euro boats of our own initiative, it was as if a part of us travelled seas that we couldn't even imagine, on boats that we could never afford to sail", Fernando tells us. **Sometimes people imagine that there are highly-qualified engineers behind certain smart solutions, while often there are only simple craftsmen that thanks to a life spent working in different fields, doing different trades, they have learned practicality, which is a fundamental characteristic, especially on ships, where space is reduced and resources need to be sipped. Of course the good quality and versatility of the machines are fundamental characteristics to be able to express the accumulated experience, for this reason we entrust our activity to the SCM machines ".** Therefore, a negative event such as the closure of the company in which they worked, led to a positive experience, which allowed Fernando and Andrea to **put their wide range of acquired skills into practice** and re-utilise them to work across the board in the world of carpentry.

"At the moment, I have a number of ideas and projects on hold, but one that is taking shape more than the others is related to tables. **Special tables**, designer, made of solid wood, but with a modern spirit. I have just filed for a **patent on a special extension mechanism** that has allowed me to combine modern design, solid wood and the need for practicality in everyday living. The Facebook page of my business, **AG_design**, has allowed me to show off the mechanism, and I have received a lot of requests for the solution that I invented."

Andrea has clear ideas and many projects, he knows how to use social media like the SCM machines we see in his laboratory (a circular saw, a

thicknessing planer **L'Invincibile** and a **class ti 130** moulder) and he learned from the proverb: learn the art and put it aside!
In this case the ancient adage was right.

Credits: Marco Di Pietro

INNOVATION THAT PUTS ON A SHOW

The Mexican company, Grupo Escato is a world leader in corporate staging. Established in 1988, it has famous clients like BBVA Bancomer, Santander, Citibanamex, HSBC, Telefónica Movistar, AT&T, Avaya and Nestlé, to name but a few. Continually in search of top quality innovation, Grupo Escato needed to find a single space in which to converge all the work and all-round services offered to its clients. One of its key requirements was to be able to count on a flexible production system, capable of meeting a highly varied and complex demand from its target market.

The Grupo Escato Headquarters.

Top side: from left, Horacio Flores (from Mademaq, SCM dealer in Mexico), Marco Pedronici (SCM Mexico), Nicolas Flores (Mademaq), Andrea Aureli (CEO Scm Group), Mauricio Flores (Mademaq) and Marco Mancini (Scm Group Managing Director).

On the right a moment of the inauguration of the new Escato Operations Center

In search of perfection and on the verge of becoming a World Class company, Grupo Escato is not only the top Mexican manufacturer of corporate furniture and fittings but prefers to talk about "staging" rather than furnishings, expo spaces and installations. A number of its creations are genuine works of art, giving companies and brands it works with a chance to offer a unique experience. A few months ago, Grupo Escato celebrated its thirtieth anniversary and for the occasion, inaugurated its **new Escato Operating Centre (COE)**, a state-of-the-art complex located in Lema, in the State of Mexico, one of the country's most important industrial areas. The modern industrial complex, developed thanks to the investment of 80 million dollars, covers more than 54,000 square metres, 34,000 of which set aside for the industrial area, with the most up-to-date machinery for wood, metal and plastic processing, a laboratory for developing prototypes and R&D work and 3,500m2 of office space.
The idea of creating environments that operate, communicate and sell, is the defining backbone of the work of this highly innovative company which nowadays, with its COE, has generated more than 1,000 direct jobs and around 3,600 indirect jobs. This allows it to be a partner to more than 180 national and international brands, developing an average of 1,800 projects per year.

The partnership with SCM. For its new Operating Centre, SCM, a multinational partner of state-of-the-art companies including the furniture industry, has provided this leader on the Mexican market with **more than 40 machines worth in excess of 6 million Euro**. A record purchase, that enriches and notably increases the technological equipment of the Grupo Escato, one of the most important "players" in Latin America and, thanks to its branch in Spain, also at global level. “The new Escato Operating Centre gives us the chance to offer a platform of solutions with an all-round vision, to fully meet our clients’ communication and image demands, in line with the internationalisation and consolidation strategy that distinguishes a world class company like ours”, **comments Gabriel Gadsden, President and founder of Grupo Escato**.

Grupo Escato designs and creates all-round communication solutions, made-to-measure

Grupo Escato is the first Mexican company to have received the PRIME prize, awarded by BANCOMEXT, AMIB and BMV, that allows it to be quoted on the stock market and continue to build itself up as a solid, competitive company. Thanks to the experience and quality of the products and services offered, Grupo Escato was named one of the 99 "Best Mexican Companies" of 2018. Other awards include "gold winner" of the APEX Awards 2019 in the "Public Spaces" category and at the Fitur 2019, prize for best pavilion for the Canary Islands awarded by PROMOTUR.

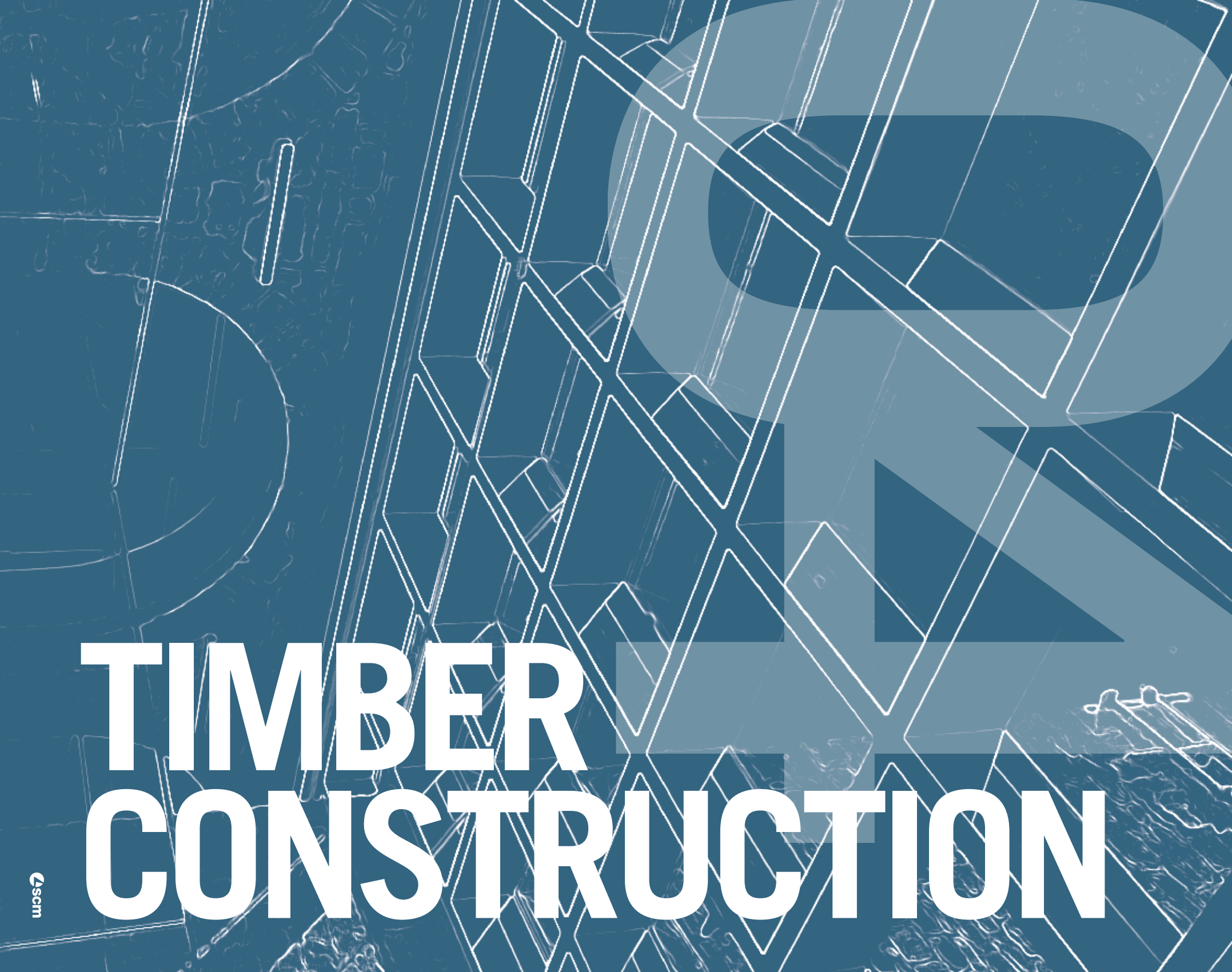
environments that combine elegance and innovation, corporate and trade fair fittings and staging for companies across the world, as well as furnishings for banks, offices, restaurants and shops. Wood takes centre stage as a material, followed by metal and plastic. **The process solution provided by SCM is the result of all-round focused and in-depth consulting and design work by the SCM Engineering team, launched half way through 2016**. This company was in need of a single production site organised into several "small factories", each one specialising in a process, but above all, it needed to simplify its production and make it faster and more flexible. Group Escato's problem was dealing with several different requests from such a wide variety of clients, something like 1,500 different orders a year. A process that risked becoming extremely chaotic: this is where the need for flexible, easy-to-use machinery stemmed from, that considerably simplified their work and generated a significant saving in time and resources.

SCM's singular decision to offer itself as a consultant rather than a sales organisation made all the difference. After an initial order in 2017, that covered 85% of the technological equipment at the new plant, the remaining 15% was purchased the following year, in sign of the significant trust earned. "The extensive and in-depth know-how of the professionals involved, more than 30 designers and service technicians, ensured the delivery of the most highly approved of SCM's technologies and services around the world for panel machining: from **gabbiani** sectioning solutions to **stefani** solutions for edgebanding; from **morbidelli** boring centres to action assembly machines, as well as **dmc** wide belt sanders, **celaschi** squaring machines and **morbidelli** edgebanding work centres, 3 and 5 axes **balestrini** machining centres for solid wood that the professionals at the Grupo Escato use mainly for creating three-dimensional prototype models.

Grupo Escato keeps a close eye on new digital frontiers and opted for **Maestro smartech** in its most recent order: the innovative remote assistance and maintenance system created by SCM, with augmented reality glasses: Escato workers can receive support in real time from experts at the SCM branch in Mexico or, alternatively, from the US branch in Atlanta or directly from the service centre in Italy". In fact, assistance is one of the priorities of the consulting project provided by SCM. The after-sales service, optimal use of the plant, management of the team of support technicians and training for the client become just as important as the positive result in sales.

"Thanks to the project developed with SCM – **they tell us from the Grupo Escato** – we have increased the production levels of wooden furniture, reduced delivery response times and improved the accuracy level of our processings. The advantages achieved by the integration between all the SCM machines are mainly a greater control and traceability of processed pieces and an increase in the quality of assemblies and products throughout the production process".

CARVALO LTD (UK)
HUBERT SCHMID (GERMANY)
I.TA.B (ITALY)
LAUBE (SWITZERLAND)


TIMBER
CONSTRUCTION
scm

SCM OIKOS AT THE HEART OF CARVALO

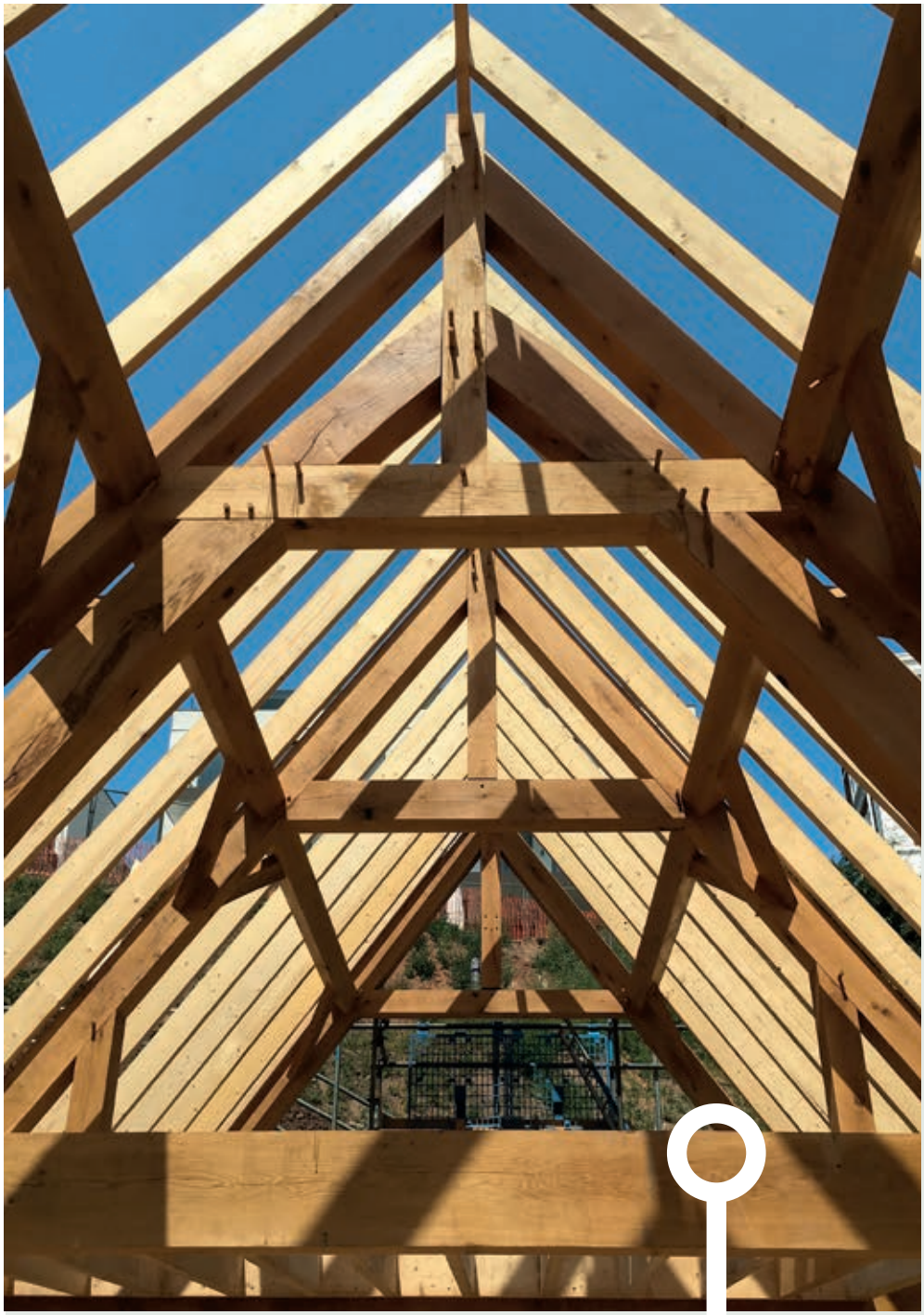
Established in 2006, and located just a few miles from the magnificent Roman fortress city of Chester, Carvalo Ltd is a specialist manufacturer of timber-framed buildings, beautifully-crafted from the finest oaksourced from sustainable European forests.

As a multi-disciplinary, design-led enterprise, the company has refined the manufacture of oak-framed buildings to something of an art form; honing knowledge and skills, and tailoring services to meet the needs and requirements of its customers for both standard designs and bespoke creations. The team at Carvalo – the name is derived from the Portuguese word for Oak– are highly skilled and the factory is equipped with industry-leading technology; not least significant being the company's most recent acquisition of an SCM 'OIKOS' CNC machining centre.

With 6 interpolating axes, the SCM oikos is ideal for machining structural beams and modular timber sections for use in the building industry, and provides companies operating in this sector with a highly innovative solution to meet the demands of a constantly evolving market. At Carvalo, the OIKOS machining centre is helping to further expand and develop the company's creative manufacturing lead, as well as satisfying a growing order book for bespoke oak-framed buildings.

Carvalo's decision to go ahead with the investment was made following a trip to SCM Italy by Haughton brothers, Grant, Ashley and Struan, along with SCM's area sales manager, Lee Gibson. "Carvalo had been exploring the possibilities of using a CNC machine to take production to the next level," says Lee, "and, following up on a recommendation, had contacted SCM to learn more about the machine's capabilities." After observing the machine being put through its paces by the demonstration team in Italy, and after further evaluating the pros and cons back home in the UK, Carvalo placed an order for the first oikos machine to be installed in the UK. This was followed by a second visit to Italy in the summer of 2017 to sign-off on the new investment and to witness the company's first products being programmed and machined during the in-house training.

One year on, and Carvalo has forged ahead with planned development of a range of oak-framed garage kits alongside the core business of creating bespoke timber sections for oak-framed construc-



the River Dee, in Chester, as part of a unique and prestigious residential development. The luxurious river-facing apartments combine the best features of an original Grade II Listed Georgian house with contemporary architecture, and the development occupies a magnificent position, high above the river, with unrivalled southerly views across Chester Meadows. To complement this enviable location, the development will also include a 'boat-house' which will itself combine contemporary living space and architectural features, within a traditional timber-framed construction, and is set to become something of a riverside icon.

Managing the logistics of transferring over 9 tonnes of timber down the hillside, and completing construction of the oak framework on-site, was contracted to M Moss Technical Ltd; a company with many years' experience of traditional timber building. Director and owner, Chris Herbert, is very impressed with the results Carvalo have achieved since installing the oikos: **"The quality of finish on the machined timber is outstanding,"** says Chris, "and the dimensional accuracy of the sections is just second to none. We've now worked on several buildings where the timber has been supplied by Carvalo and, although we are always working with huge chunks of oak, the framework slots together perfectly, every time."

As well as processing solid timber, the oikos at Carvalo is employed for machining Glulam beams, and has the capacity to machine components with cross-sections from 50mm x 20mm up to 625mm x 300mm; the boathouse design in Chester called for several beams at almost 7 metres in length with a cross-section of over 1000cm2.

Occupying around 140 sq. metres of floor space, with a 3.3m high machining cabinet sandwiched between the 9m long infeed and 9m outfeed, the SCM OIKOS 6 installed at Carvalo has a total operating length of 23.7 metres and is actually the most compact model in the range. Two further

tions. The company's production team have extensive knowledge of the design and construction of oak-framed buildings, and devote the same care and attention to detail on their building kits as they do on custom-designed building projects. Designed for rapid assembly on-site, Carvalo's garage kits are supplied with fully-dimensioned plans, and timber components are numbered to correspond with the plans.

The fresh-sawn green oak used at Carvalo is visually graded for strength and suitability for construction, and all jointing is done with traditional mortise and tenon joints; locked together with tapered oak pegs. The product of a typical bespoke 'Carvalo' machining job for the SCM **oikos** has recently taken shape on the north bank of

variants of the **oikos 6** are available with operating lengths of 32.7 metres and 43.7 metres, capable of machining pieces up to 13.5m and 19m in length respectively. In addition, there are 3 models of the **oikos 12** – the same as the **oikos 6** in every way except the maximum machining width is doubled to 1250 mm; making it ideal for sizing modular wall panels and, utilising the nesting function, especially economical for machining multiple shaped panels in one pass.

The innovative and flexible 6-axis **oikos** achieves a first-class surface finish thanks to the unique geometry of the specially-designed head unit and an electrospindle with rotation speeds up to 16,000 rpm. Furthermore, with the machine's 360-degree machining capability and robust build quality, ultimate precision in the finished piece is guaranteed. Controlling machining operations is SCM's **Maestro Beam&Wall** software; interfacing seamlessly with structural designs created using industry's leading CAD programs, and also allowing for a degree of customisation of components when required. SCM's software also provides the ability to modify any processing parameters – adding or deleting operations and elements, or managing machining strategies to ensure optimum finish quality and minimise waste. **Maestro Beam&Wall** also includes simulation software which enables machining programs to be tested in advance – visualising production operations in 3-D; eliminating errors, collisions and downtime, and allowing calculation of production time, cost and project profitability.

Maestro beam&wall software provides 3D visualisation of machining operations.

The oikos 6 installed at Carvalo can handle workpieces up to 19 metres long.

SCM's oikos delivers a superb surface finish and precision fit for oak frame components.

In the loading area, a workpiece is automatically selected from the infeed buffer and, securely gripped by self-centring horizontal and vertical clamps, is then guided through the machining cabinet, in a single pass, with no rotation or repositioning required. By facilitating machining on the lower face of the workpiece, the sixth axis of operation optimises precision and productivity with no additional operator intervention required. Carvalo's machine has a 15-position tool store, plus a 500mm diameter circular saw; allowing rapid selection of tools for a multiplicity of drilling and machining functions.

The SCM **oikos** can also be specified with a 600mm diameter circular saw, or a dedicated mortise slot chain cutter head, and there is even the option to include an angular head incorporating a chainsaw unit with integral lubrication system. Accuracy and speed of operation can be further optimised by inclusion on the head of either a pneumatic probe, which checks the position of the workpiece before machining, or a laser probe, which detects workpiece position at very high speed, allowing fast, precision movement of the head to the workpiece.

A wide belt conveyor directs waste dust and chips to an extraction point at the rear of the fully-enclosed machining cabinet to keep the work area clean and, in conjunction with the sizeable viewing window, affords the operator a perfect view of machining operations in complete safety.

"**oikos** CNC machining centres are already being utilised successfully across Europe," commented Lee Gibson, "where the demand for timber-framed structures in countries such as France and Austria, as well as in Italy, has steadily grown in recent years. As the market evolves here in the UK, the OIKOS is a shoo-in for manufacturers planning to fulfil future demand."

FLEXIBILITY, TIMELINESS AND EFFICIENCY: THE BACKBONE OF HUBERT SCHMID

The German Group has a new SCM CNC machining centre for timber construction

From the left:
Pietro Ferrari, Struttura Legno journalist,
Luciano Tagliaferri, Product Area Manager SCM,
Christian Hebisch, from the technical and programming office Hubert Schmid,
the Chief Executive Officer Florian Schmid
and the Zimmermeister (Carpenter Master) Werner Hämmerle

TIMBER CONSTRUCTION - **HUBERT SCHMID -** GERMANY

In the wealthy, industrious region of Allgäu in southern Bavaria, between the important centres of Kempten and Munich, the Hubert Schmid group is of huge economic relevance with its different activities in the field of timber, cement and metal construction as well as recycling systems for sustainable energy.
Its vast production area is like a small city where the most varying technologies are located in separate units and warehouses.
Our reportage focuses principally on the **Zimmerei-Holzbau Schmid** which deals with timber constructions and uses SCM's most recently developed machining centre: **oikos x**.

The typical structure of multi-functional organisations with premises in German speaking regions translates into an ability to **meet different demands to be completed with the utmost flexibility, timeliness and efficiency**.

"The Hubert Schmid group was established in 1969 by Luise and Hubert Schmid - **explains the managing director, Florian Schmidt** - while the timber carpentry work was launched in 1989 and, after an initial transfer to Röntgenring in 1997, in its own warehouse, the company transferred to its current headquarters in 2001. The first automatic machine for blockboard beams was put to work in 1991. Our work spans the full length of the entire timber construction industry: residential buildings, public buildings, warehouses, bridges, special projects and third-party processing".

"Our work - **continues Christian Hebisch, a colleague of Florian Schmid** - is to process "KVH/BSH type" solid wood and blockboard beams to create timber structures for various applications such as trusses, roofs, lofts and special pieces for individual projects such as bridges and industrial warehouses.

From a project point of view, our technical department uses CAD-CAM design systems and, since 1991, the software has been kept up-to-date in line with industry standards. Even with automatic machines, we have continually updated our technology right up to this SCM plant, **oikos x**, capable of working on pieces up to 1250 mm in useful length".

"It is precisely the working width, the excellent flexibility guaranteed by **oikos X**, which can even work on extremely short pieces, and the price-performance ratio which have been the determining factors in the investment" points out Florian Schmid.

"**Oikos x -** confirms Hebisch - allows us to carry out all the required work ,in other words, longitudinal and transversal cuts, including optimisation operations on beams and the creation of modular elements from unfinished panels using nesting technology. We do all kinds of milling, drilling,

straight and tilting, in every size and variation you can imagine, as well as special solutions; indeed, the more complex the piece, the better **oikos x** performs thanks to its precision and operating speed".

The person working directly on the machining centre, the Zimmermeister Werner Hämmerle, adds: "We were looking to working pieces up to 21 metres and the assistance and service received from SCM's technical support team has been, and continues to be, highly efficient in meeting our specific demands".

Luciano Tagliaferri, SCM's product area manager outlines oikos x's most state of the art features: "This is an automatic load and unload machining centre; the maximum sizes of the pieces are 21 metres in length in this installation, generally up to 19 metres, 1250 millimetres wide and 300 millimetres thick. We have the opportunity to work pieces with a minimum length of 250 millimetres, 20 millimetres thick and 50 millimetres wide. So, we move from pieces that are relatively large to pieces that are very small to cover most applications in timber constructions".

Oikos x works on six sides of the piece and ensures every form of processing, with eighteen tools always at the ready and automatic tool change, while the chain saw and mortise can be used as additional processes to work on 1250 millimetre elements to create mortises on the beams for joints and hardware insertion.

The machine is fitted with a laser probe to increase accuracy in the case of dovetail joints and also with a marker, directly fitted on the A axis where the electro-spindle moves, so that the passage from laser to marker and vice versa is very fast.

The system offers automatic lubrication of the linear guides and highly accurate mechanics that

do not require a great deal of maintenance by the operator.

It is worth pointing out that the milling head structure is symmetrical and means the head and tail of the piece can be worked in the same overhang conditions; the latest kind of clamps secure and position the pieces up to 4 tons with maximum accuracy and speed.

In this configuration, the loading and unloading roller conveyors have roller supports to make the loading and unloading operations easier and prevent damage on the lower surface of the piece.

The operator can monitor the plant thanks to both the wide windows in the cabin and four video cameras positioned above the CNC which provide full vision of the process: loading, unloading and internal processing area. The loading system is equipped with resting supports at the front of the motorised chains to aid the operator when preparing the pieces.

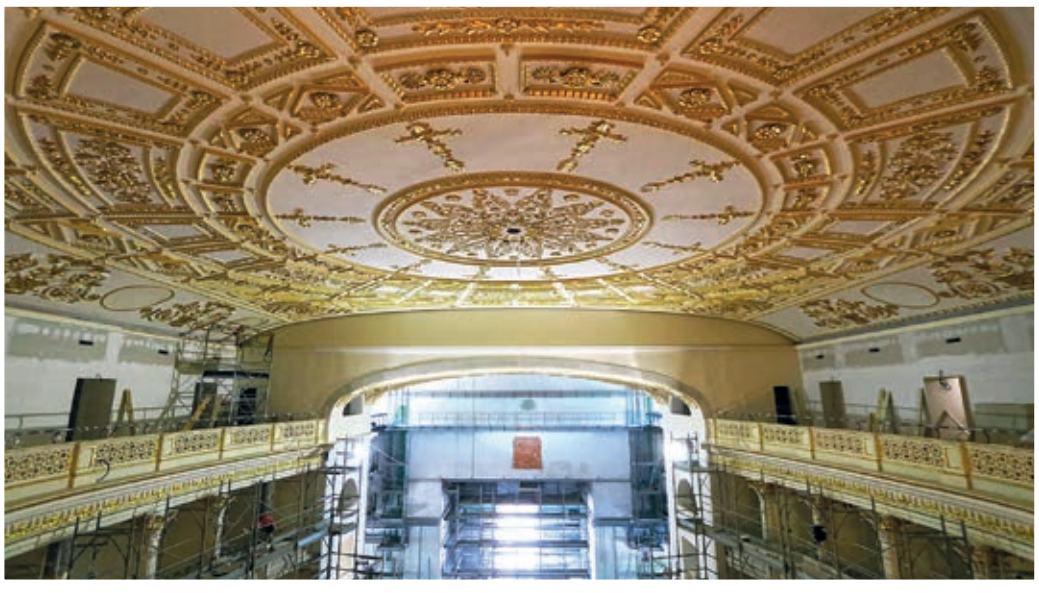
It is a compact machine that is 2.4 metres wide in the piece processing area and the commands console has been positioned near the machine so that in this case, the operator can make changes to the programs arriving via BTL file elaborated by SCM's **Maestro beam&wall** software. It is possible to generate work programs for the CNC thanks to the automatic elaboration of the BTL project files and manage the simulations, optimi-

sations of waste, tool nesting work and operator interface data to manage the entire process.

Lastly, thanks to experience and collaboration acquired with the more sophisticated clients from central Europe, SCM continues to update the software providing its clients with a wide range of functions to satisfy the most complex processing requirements.

Credits: Pietro Ferrari for Struttura Legno

“MADE IN I.TA.B.” ECO-CONSTRUCTION: **MADE-TO-MEASURE NATURE**



Tradition, innovation and technology are the pillars of this Romagnola company specialised in the production of buildings and elements for timber construction with a strong “green” imprint. One of its works is an architectural element, the structure supporting the vault and proscenium arch at the prestigious Galli Theatre in Rimini, and which was fundamental to the rebirth of the theatre.

A company with deep roots, solid like the quality raw material par excellence from which its creations stem. Since 1985, I.T.A.B has been transforming the extraordinary physical and mechanical properties of wood and considerable technological potentialities into customised and innovative solutions for construction, furnishings and design. In reality, taking a closer look at the family tree of this company, now in its third generation, we discover that its origins date back as far as the 1940s. We are at the heart of the Valmarecchia, in Ponte Santa Maria Maddalena, surrounded by the green hills between Rimini and Pesaro, a countryside perfectly in line with the sensations of warmth, harmony and naturalness that the wood naturally releases. The architectural features of the headquarters, covering a surface area of 13 thousand square metres, are in themselves the company's first "business card", a clear demonstration of I.T.A.B.'s strength to conjure up a passion for tradition using the most modern technologies. The structure, entirely made of wood, combines with eco-construction design techniques and modern furnishing, and decorative elements like the large glass display windows showing off the bright showroom from the outside. It is here that **Gilberto Bucci**, owner and partner together with his brother-in-law **Adriano Tamburini** welcomes us with daughters Laura, Elisabetta and Elena, all with the different roles and involved in running the family business. The other "pillar" in the business is **Maria Tiziana Bucci**, Adriano's wife and sister to Gilberto, who has always been at their side, ready to make the accounts add up in the admin. office.

Gilberto has been working with wood since he was 13 years old, alongside his father Augusto, a carpenter, and the memory of whom still remains clear in the minds of many of the older clients. "A lot of people still ask us for a piece of furniture like grandfather Gutìn made!" Laura tells us, the granddaughter in the Bucci team with a head for "sales". Overtime, in virtue of the considerable progress made in the timber building industry, the creation of eco-construc-

The I.TA.B. Headquarter. On the right a corner of the splendid show room

tions with a high technological leaning and energy saving, has become "core business" at I.T.A.B. "We started out in the 1980s as a saw mill and over the years, we have further diversified our production - **explains Gilberto** - Nowadays, 50 per cent of our work is timber houses, roofs, coverings, timber frame walls (Platform) and X-lam (panels), mostly produced with pine and fir wood types".

The production range is vast and highly varied: villas for private clients, residential complexes, prefabricated houses, beach and tourist-reception structures where the "green" imprint is increasingly more requested in light of new legal regulations governing earthquake-proof, fireproof and thermal-acoustic matters. And more, external wooden paving, ventilated façades, sports complexes, schools and industrial structures with dried fir wood strips, specifically checked and selected in the best parts to achieve greater elasticity and mechanical resistance. All that remains is the part dedicated to door and window frames and furnishings, without forgetting decorative objects that include attractive gifts. All managing to be practical and attractive to look at as well as being made-to-measure, the key to successfully rising above the competition which, nowadays, is increasingly tough.
"The timber construction industry is flourishing - **adds Gilberto** - but it is quality that makes the difference. We present ourselves as a reference partner thanks to our careful selection of raw materials, solid craftsmanship experience, flexible approach, highly specialised in-house staff and state-of-the-art technological plants. In total, there are 26 of us, but we continue to expand and are in search of engineers to further reinforce our technical department. It all starts with the planning, design and data elaboration that is then transmitted to the numerical control machining centres which, nowadays, is at the heart of our factory, an **oikos** purchased from SCM in 2014 which has allowed us to diversify our production significantly. On the oikos we process structural beams, X-lam wall panels/CLT, even very large sized ones. As well as this advantage, the **Maestro beam&wall** software makes the operator's job a lot easier thanks to the perfect integration with the main CADs for planning and the possibility of simulating and testing the work in advance which, will then be carried out on the machine. All this while constantly guaranteeing quality results".

Oikos is not the only machine purchased from SCM. We also have a **gabbiani s 90** saw (sigma impact 90 pre-rebranding) and a router for made-to-measure craftsmanship processing work. "We chose SCM for the soundness of its brand. Its technology helped us to manage the entire process internally and, above all, to become faster, better performing and more competitive" **affirms Gilberto**. Advantages which are just as fundamental for the owner of I.T.A.B. as the after-sales service received. On the other side, SCM made a question of meeting the specific needs of this company starting from its ability to create new production standards even in timber construction, in the name of eco-sustainability, safety and high technology.

We browse through the "made in I.T.A.B." references album and even discover the **Russian and French pavilions** created for Expo Milano 2015 and the **"Amintore Galli" Theatre in Rimini**, a prestigious work for the entire Italian historical, artistic and cultural scenario: opened in 1857 from a project by Luigi Poletti and badly damaged by Allied bombing n 1943, it was returned to the local territory and community on 28 October 2018, exactly 75 years after the last curtain fell. I.T.A.B. played a key role in its restyling by creating the lamellar fir structure that supports the theatre vault and proscenium arch as near to the "soul" of a theatre as one can get. Structural work carried out in full compliance with the architectural standards of the theatre though done with modern equipment and technologies, that without doubt, recreated with precision the atmosphere, style, richness and beauty of the original works. "We were commissioned by the A.C.C - Adriatica Costruzioni Cervese: we produced it with the **oikos** machining centre and then coated it in flame-proof plywood, completing the work with the finishing touches".

“LAUBE HOME” THE PREFABRICATED HOUSE THAT LOOKS TO THE FUTURE

Live in an attractive, comfortable house built with state-of-the-art eco-construction techniques and good energy saving? A dream that can come true without breaking the bank. Laube prefabricated and modular solutions found a valuable ally in SCM technology. With the routech rx30 machining centre, the Swiss company managed to diversify its range of products and materials and subsequently expand its market

There are many reasons for choosing a prefabricated house, especially if it is made entirely of wood. Monetary savings, together with shorter completion times is undoubtedly one of the key advantages if we consider the high cost of land and all the difficulties and costs involved in a traditional construction. To this we can add the extraordinary results achieved nowadays with the use of more modern eco-construction techniques, eco-compatible materials and state-of-the-art technologies capable of guaranteeing a high quality of life, in perfect harmony with nature and houses that are long-lasting. Thanks to a structured made-to-measure planning for prefabricated modules, you can also customise the future of your home at no additional cost. Laube SA was one of the first companies internationally to realise the enormous potentials of a house of this kind, becoming leader in the sector.

Operational since 1939, this Swiss company with more than 100 employees distributed between its main headquarters in Biasca and two branches in Losone and Melano, is a point of reference for the Swiss economy, especially in the Canton of Ticino area. Over the years, it has grown constantly thanks to its ability to embrace, and even anticipate, market trends in the building industry and nowadays is specialised in solid wood or lamellar prefabricated and modular houses. And that's not all because Laube also offers carpentry services like roofing, waterproofing flat surfaces, coating and creation of ventilated façades and tinsmithery work.

If Laube has managed to expand its "operating radius" and successfully open up to new markets, this is largely due to its foresight in equipping itself with state-of-the-art technologies. The recent purchase of the most evolved SCM machining centres for carpentry work, the **routech rx 30**, is a perfect example of this. "The company was looking for a plant which would allow it to increase its productivity and flexibility, expand its range of products and acquire new clients without having to increase internal resources as well" **explains Christian Terfruechte, SCM Area Manager for Switzerland**. This way, equipped with a five axes and multifunctional

From the left, Christian Terfruechte, SCM Area Manager for Switzerland, and Ruben Veronese, Laube sales manager

surface machining head unit, with a high level of automation and digitalisation, the owners of Laube found the solution that best suited their needs, "and their investment has already paid off with the advantages achieved since the routech rx 30 made its début in the factory" adds Terfruechte

"The market demands shorter delivery times. As well as the need to work with increasing accuracy" **underlines Ruben Veronese, Laube's Sales Manager**. - Managing to do everything internally with a fully automated solution like this SCM machining centre has been fundamental for us".

To mention one initial important result, thanks to this model purchased, Laube has managed to optimise the process management by eliminating the intermediaries between the design and production phases. One example? Laube's technical office designs a prefabricated house in the minutest detail, based on the client's individual requests and all the data is automatically sent to the SCM machining centre. Just insert the pieces and they are cut and milled according to the indications transmitted by the software. This also makes the process easier and more manageable for the operator, though always with a high level of know-how.

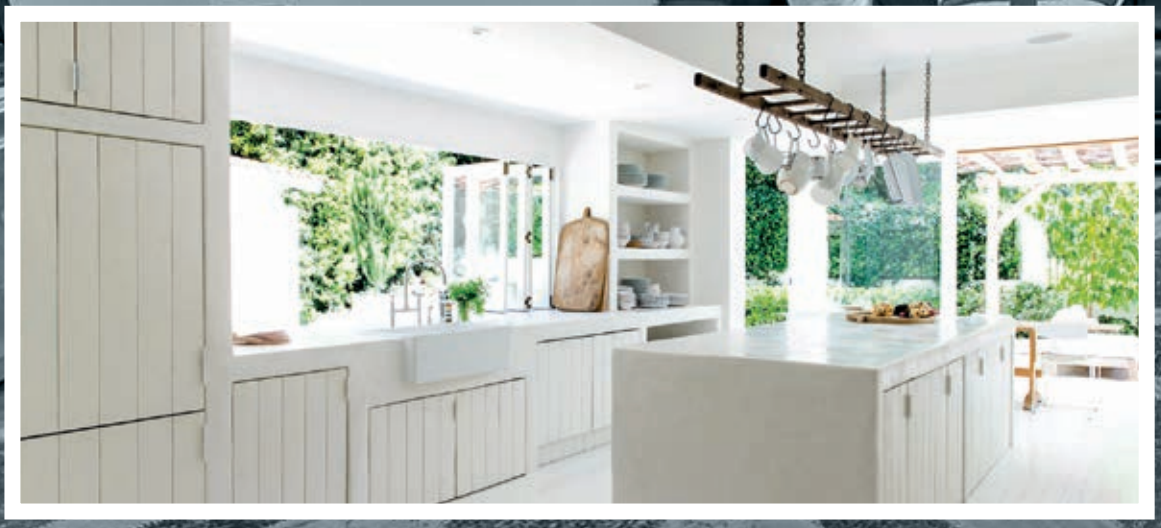
Furthermore, **routech rx 30** offers a volume of work well above traditional standards, a genuine strong point compared to competition insofar as it means any shape can be processed, always with maximum precision, on all the materials commonly used in carpentry workshops, even the most advanced, innovative ones for eco-construction.

"For us - **concludes SCM's Area Manager** - it is a matter of great pride to have been the only ones to satisfy the demands of a client like Laube, which has always kept a close eye on technological developments in the industry". "Laube Home": a genuinely sustainable reality.

FINEWORX JOINERY (AUSTRALIA)
SVENSKA FÖNSTER AB (SWEDEN)

DOORS AND WINDOWS

ACCORD 5-AXIS TECHNOLOGY **OPENING NEW DOORS AT FINEWORX**



This Australian company successfully combines the typical custom-made production of a handicraft business with the most advanced technology. 'Thanks to a one-stop solution - SCM's accord 25 fx 5-axis machining centre - we were able to replace our mortising machine, tenoning machine, spindle moulder and numerous hand tools. This translated into massive time and space savings," say the owners, David Alderton and Russell Andersen.

With a combined experience of over 50 years in the woodwork and furniture industries, there was little doubt that David Alderton and Russell Andersen's venture into their own joinery company was going to be a success. Almost 5 years since its inception, Fineworx Joinery services the Sydney, Central Coast and Newcastle regions of NSW offering a blend of traditional craft skills of timber joinery with contemporary technologies to produce window and door products that meet and exceed client expectations.

With a focus on timber windows, doors, gates and privacy screens, Fineworx Joinery create custom made orders to architect specifications. "We pride ourselves on our quality and pre-sales service," said David. "If the customer needs us on site we will be there. Instead of focusing on after-sales, we make sure we get it 100% right before we even start the manufacturing process."

Choosing to create their designs by hand and running their workshop without any materials handling systems, Fineworx Joinery needed to make sure their machining solutions provided them with the right combination of adaptability and automation. "After a lot of research, we selected the **SCM accord 25 fx 5 axis** machine," said David. "This one purchase replaced our morticer, tenoner, spindle and numerous hand tools. It's been an excellent time and space saver for us."

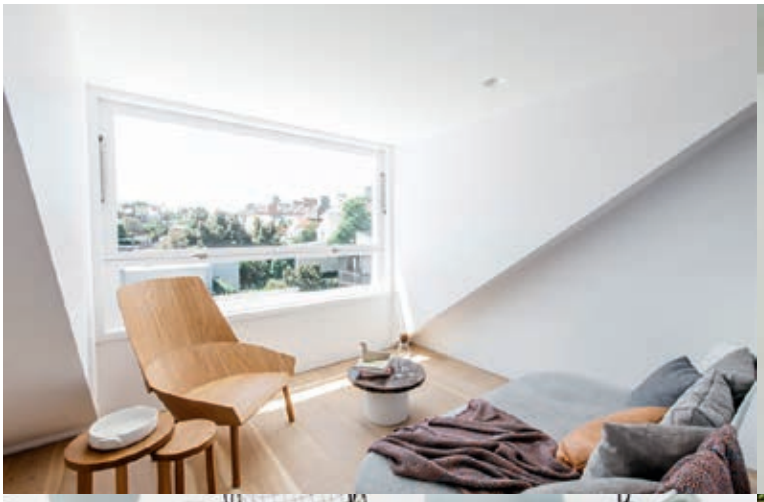
As David and Russell heard the news that one of their very proficient craftsmen was leaving Fineworx Joinery, they needed to quickly fill the skill shortage. Rather than hiring a new craftsman, they made the choice to invest in the **accord 25 fx 5 axis** machine, knowing that the investment would be the best outcome for their business.

"In the time we've had the **accord 25 fx 5 axis**, we've seen major improvements in the speed and accuracy of our production," said David. "After only one week of having the machine we were making circular windows with ease. We have just delivered product with a 6.5 metre radius, all done on the **accord 25 fx**."

Reorganising a factory to cater for a new and large machine can be a daunting task, however this wasn't the case for Fineworx Joinery. After moving their dust extraction to cater for the new machine, and minimal rearranging of the factory floorplan to incorporate the **accord 25 fx**, the new production line was ready to run.

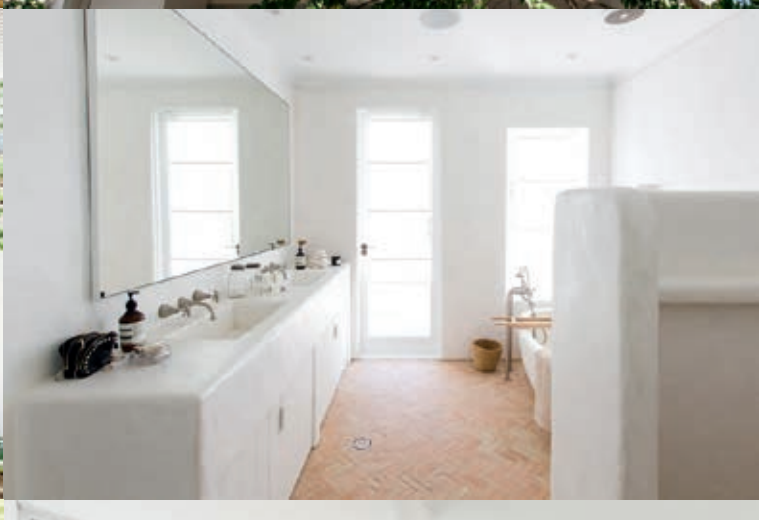
"The time spent sanding profiles and cleaning and squaring corners has dropped dramatically. Machining for hardware is now a breeze, and we can now offer more fittings which were previously just not viable due to long labour times."

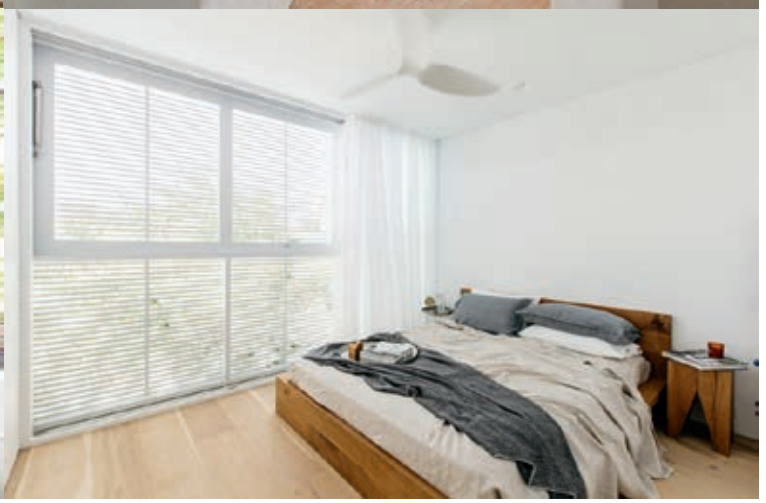
"It has actually been a lot of fun learning to use the machine," said David. "The support from our rep Chris Nixon and SCM Group Australia has been fantastic, and while it is only early days, the potential for our business is unlimited. All our expectations of SCM Group Australia have been met and exceeded."



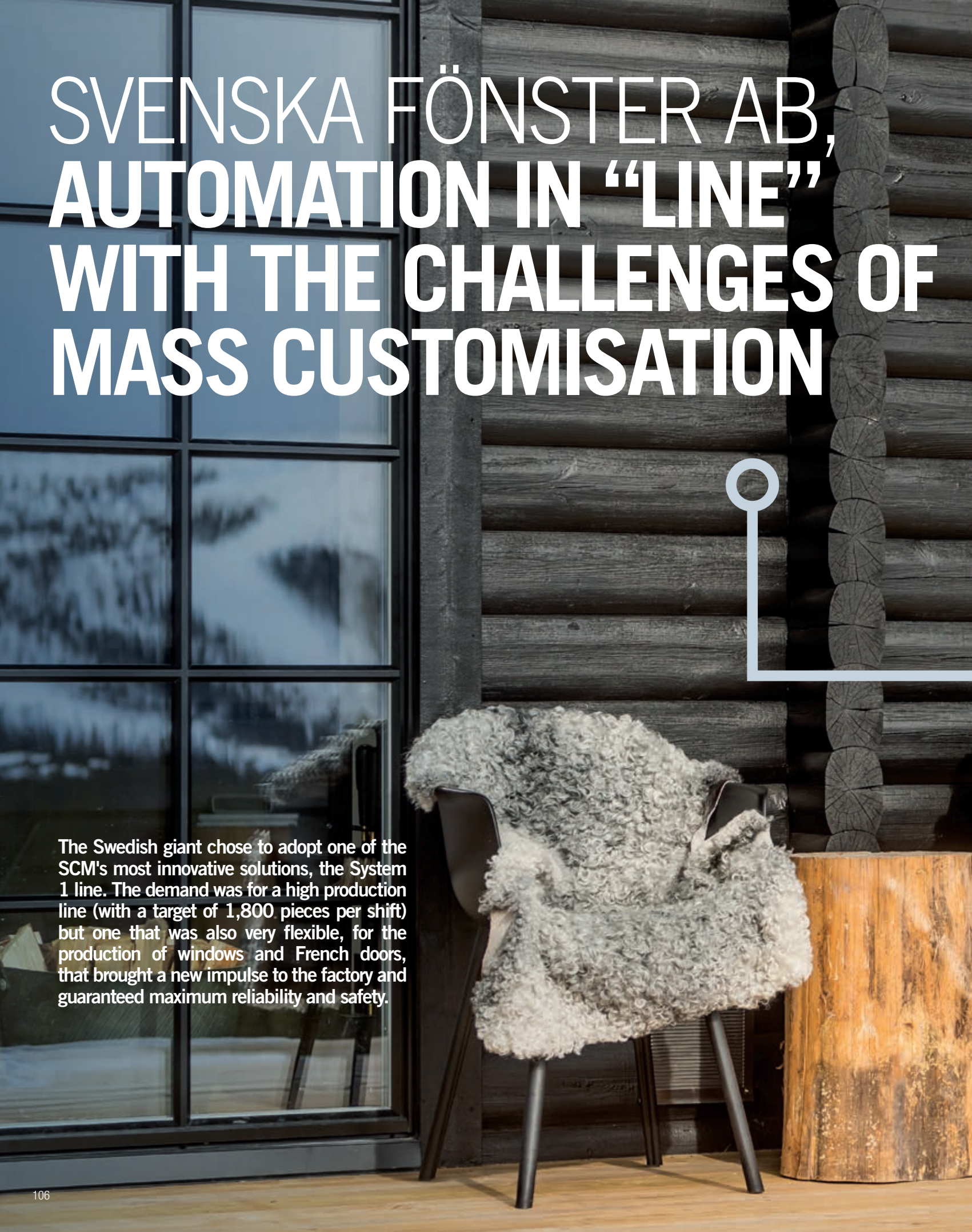








SVENSKA FÖNSTER AB, **AUTOMATION IN "LINE" WITH THE CHALLENGES OF MASS CUSTOMISATION**



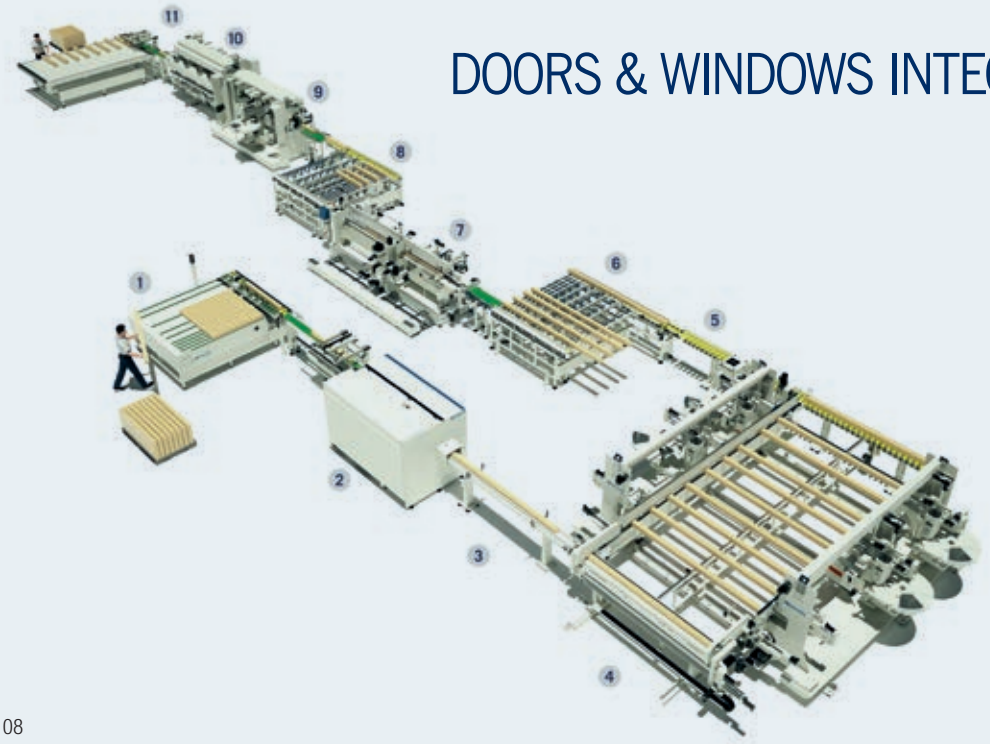
The Swedish giant chose to adopt one of the SCM's most innovative solutions, the System 1 line. The demand was for a high production line (with a target of 1,800 pieces per shift) but one that was also very flexible, for the production of windows and French doors, that brought a new impulse to the factory and guaranteed maximum reliability and safety.

With a turnover of 130 million Euro, **Svenska Fönster AB** is one of Sweden's leading and most eco-friendly manufacturers of windows, with three brands – Traryd Fönster, SP Fönster, and the joiner's app Svenska Fönster. Its head office is in **Edsbyn,** where most of the company's 800 employees work.

Svenska Fönster is part of the **VKR group**, which has a long-term interest in this company and is now making major investments in it.

As the technical manager, **Göran Hammarlund**, tells us, the good quality of its products, the continuous investments in technology and the production process automation play a key role. Its windows are produced entirely in **solid wood** and are aimed at the high end of the market, both private individuals and construction companies; a market characterised, in any case, by an increase in orders and an ever growing product customisation. This is the so-called "**mass customisation**", a production that needs to be increasingly customised in line with the demands and tastes of individual clients, without sacrificing industrial production advantages. A production structured for **small batches** while still being smart, fast and with a minimum possible waste of time and resources. This can put industry companies in a lot of difficulty, and even more so in the case of Svenska Fönster AB, that produces everything internally.

How can these increasingly arduous challenges of "mass customisation" be dealt with? How can large volumes and flexibility be satisfied at the same time? The Swedish timber giant opened a genuine "window" onto the future and chose to adopt one of the most innovative solutions offered by SCM, Italian leader in technologies for secondary wood processing: the **System 1** line. The demand which the SCM Engineering team tried to satisfy from the outset was that of a high production line (with a target of 1,800 pieces per shift), for the processing of windows and French doors, that brought a new impulse to the Swedish factory and guaranteed maximum versatility, reliability and safety. The result is a line fitted with sufficient units to permit "automatic passage" between all element types to be produced, without any operator intervention. In addition to this, the work is further simplified by the **state-of-the-art operator interface** which is extremely intuitive and means orders from the company management software can be imported directly.
The System 1 line consists of 11 different stations. The raw pieces loaded in different shapes, are firstly planed in the **superset nt** automatic throughfeed moulder, an extremely versatile machine that can be customised around the client's needs and type of product to be achieved. It is fitted with extractor



DOORS & WINDOWS INTEGRATED LINE **SYSTEM 1**

- **HIGH PRODUCTIVITY LINE, FOR THE PRODUCTION OF WINDOWS AND DOORS, UP TO 7 PCS./MIN**
- **HIGH LEVEL OF INTEGRATION AND PROCESS CONTROL, THANKS TO MAESTRO WATCH**
- **ONLY 2 OPERATORS TO MANAGE THE WHOLE LINE**

Line composition

1. Loading station
2. Automatic throughfeed moulder "superset nt"
3. 90° Transfer conveyor
4. Double end tenoner "celaschi p60"
5. 90° Transfer conveyor
6. Transfer conveyor with buffer function
7. Drilling and Routing machine "fleximat"
8. Transfer conveyor with buffer function
9. Left Profiling machine "profitech"
10. Right Profiling machine "profitech"
11. Unloading station

devices to be able to work individual pieces with a minimum length of 280 mm and all functions useful for correctly advancing and machining each component. From here, via transfer, the pieces are conveyed to a **celaschi p60** double tenoning machine, in which the head tenoning is carried out simultaneously on the two tips of the pieces at an advancement speed of up to 20m/min.
Thanks to the "pyramid" function of the operating units, pieces differing in length from one another up to a maximum of 300 mm can be processed without having to empty and reposition the machine, thus saving a considerable amount of time. Other advantages include the electronic "Colibri" anti-splinter system which, in combination with the automatic change of tools, makes this a flexible and versatile solution.
From here, again via transfer, the pieces arrive at the **fleximat** passage drilling and milling centre, where all the accessory processing work can be carried out, like the milling for a lock and holes for the handle, meeting and connection point, required for the subsequent assembling of the window. Another transporter with buffer function for temporary accumulation of processed pieces, essential for balancing the frequency of the flows, brings the piece to the **profitech** shaping machine where the longitudinal parts are shaped on the right and left with machining centres equipped with tool magazines and automatic tool change. Lastly, the finishing work is carried out on the upper and lower sides via units at high rotation speed. This way, all the elements for the hinged door are produced and the piece that entered raw, is ready to be painted.
Another important advantage comes from **Maestro watch**, the line supervisor software to manage the entire production process, designed for simple use and to import the work orders from all the company management systems.

"Thanks to this line, we have managed to replace out-of-date machinery and made gains in precision and speed" confirms Göran Hammarlund. The

Swedish company decided to invest in made in Italy technology because, as the Technical Manager explains, it is a guarantee of the best quality-price ratio. "System 1 is a fundamental line nowadays for our production and, as a result, the post-installation support and services offered by SCM are also essential".

Svenska Fönster is a genuine intelligent factory, but what is even more incredible is its strong focus on the environment. Indeed, this is the first Scandinavian company to have met the new and strict requirements to achieve the **Nordic Swan ecolabel**. A company which, since 2009, has radically changed its production processes precisely with the aim of reducing waste and saving energy and which today, not only uses renewable sources in its factory but also exclusively uses water-based surface treatment solutions.

Svenska Fönster: innovation that is good for work and the environment.

NÜCAMP RV (USA)


TRAILER

MAXIMUM COMFORT **IN A TEARDROP**

The nüCamp RV campers and travel trailers combine good looks, high quality raw materials and innovative design. This North American company selected SCM for its wood processing and more specifically, a morbidelli p200 boring-milling and edgebanding centre capable of genuine "miracles"....


nüCamp

High quality technology, comfort and innovation. Even on the busiest roads, **nüCamp RV** campers and travel trailers can be spotted in an instant thanks to their refined design and unmistakeable teardrop shape. They are produced by the family run company of the same name in Sugarcreek, Ohio (also known by its historical name of Pleasant Valley Teardrop Trailers LLC), with 185 employees, and are aimed at the high end of the market mostly in the United States and Canada.

Manufactured in traditional hardwood, plywood and composite materials, these special vehicles need to meet precise requirements: high quality, lightness, intelligent use of space, practicality and eco-sustainability. The internal spaces of these "teardrops on the road" need to be optimised to make them striking and include all services and comforts on board that camper enthusiasts cannot live without while travelling. Reassurance, however, is also needed that it is agile in its movements while also being sturdy and stable. The raw materials, technologies adopted and investments into research and development, therefore, play a key role in creating the end product.

Almost the entire interior infrastructure is made of wood, including the stunning birch cabinetry and is produced "in house", organising all the cutting, edging, assembly and finishing operations within the same production department. The only work that is outsourced are the dovetailed drawers and traditional doors with wooden frame that further characterise a range of vehicles.

"The most important technologies for our wood processing department - they explain to us from the company - are the SCM CNC machining centres **morbidelli m400** for drilling and routing and the **morbidelli p200** for drilling, routing and edgebanding. We use Alphacam and SCM's Maestro software line in combination with these solutions which allow us to optimise and automate the flow and in particular, the edgebanding process. SCM's advanced technologies help us simplify, automate and increase productivity, a key advantage in being able to compete successfully in a frenetic market like ours".

The words of a company that has always been ahead of the rest of the industry. Unlike the car industry, campers have not made any significant progress in recent years in implementing high tech solutions. This can depend a great deal on the fact that the camper is a luxury item and not a basic necessity like a car, and is forced to live with a more unstable market. The road to success, therefore, lies with innovation and nüCamp RV is sure of this.

The most recent purchase made from SCM was the **morbidelli p200** machining centre, the same one that won an award at the IWF Atlanta Fair, with the Challengers Award for its exclusive HE-POD suction cup system patented by SCM to meet every milling, edgebanding and boring requirement. Indeed, this system makes this machining centre unique on the market: the HE-POD suction cups add the third dimension to the work table, allowing the perimeter work to be carried out without the need to move, thanks to the alternating lifting of the pieces.

"This machining centre - continue those from the North American company - solved a number of our problems and eliminated the difficulties encountered with hand processes including shaped profiles, always produced manually, with a table saw.

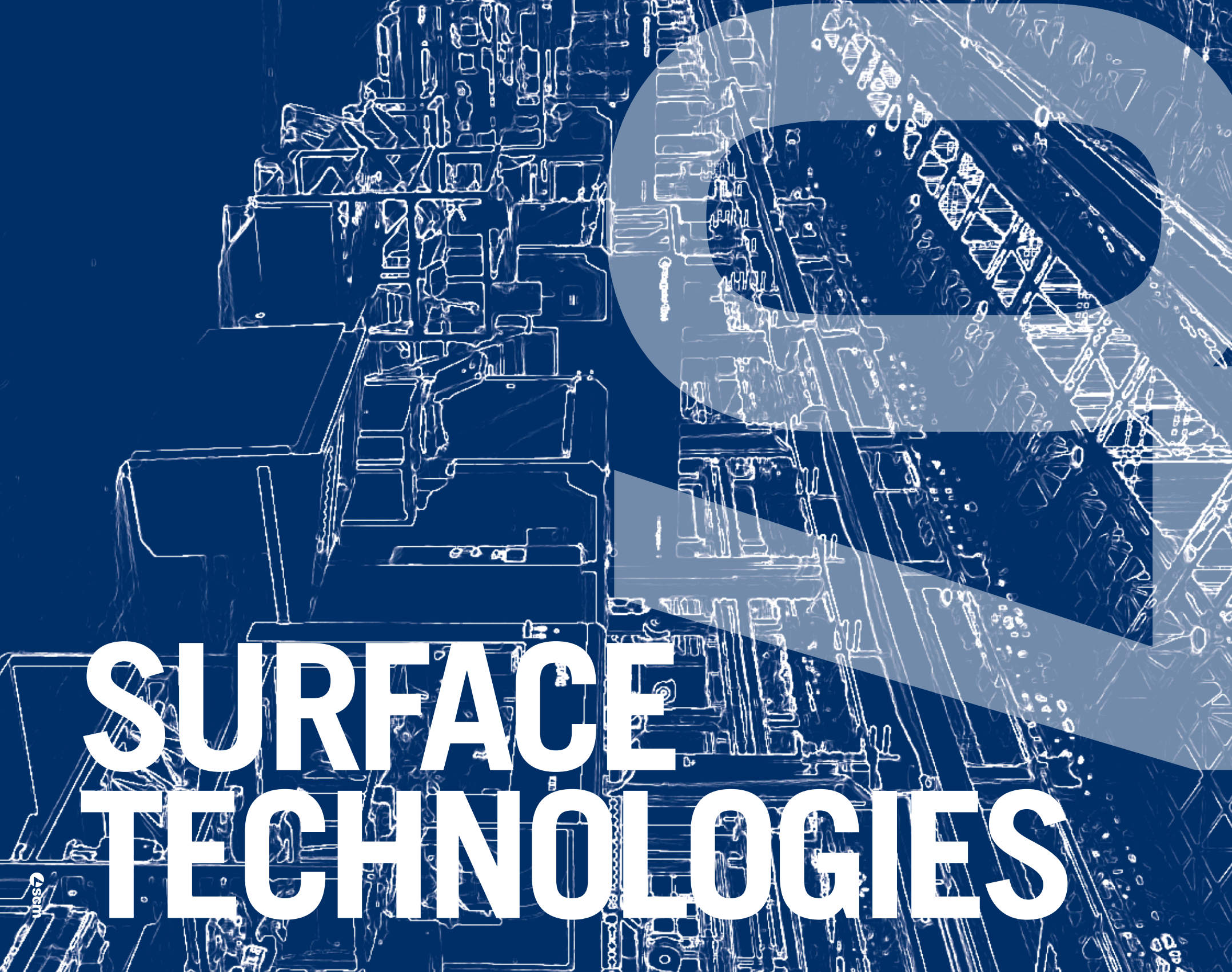
The main advantages achieved with the morbidelli machining centre is the possibility of providing the client with high quality production. "We also use PUR glue on all the lateral band parts, which is very resistant (up to 360 degrees Fahrenheit) and has an almost invisible glue line, guaranteeing a sleek, clean look".

The morbidelli p200 CNC machining center was awarded at the last IWF fair in Atlanta, with the Challengers Award for its exclusive patented HE-POD suction cup system from SCM to meet all milling and boring milling needs.

From the left, Scott Hubble (CEO of nuCamp RV), Joe Mullet (Chairman of the Board), and Jesse Mullet (President)

The nüCamp RV team decided to place its trust in SCM because their solutions "have a solid structure, are more reliable and require less maintenance. It was the best long-term investment we could ever make". We get the impression they are highly satisfied, not only with the type of technology purchased, but also the level of assistance received at the after-sales stage. "Any manufacturing company knows that problems are inevitable. Based on our experience, we can guarantee that SCM has the best support team. SCM helped us avoid downtimes and quickly deal with certain problems. The support we initially received from Rob Howell and Phil Bryant was outstanding, and Arvid Estep has always been able to identify our needs. SCM is a guarantee for us".

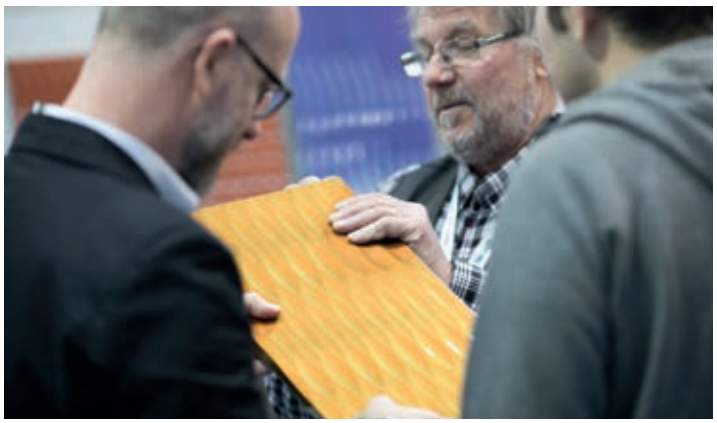
A UNIQUE PARTNER IN SURFACE TREATMENT
BAUWERK BOEN GROUP (CROATIA)
PANDOOR GROUP (ISRAEL)



SURFACE TECHNOLOGIES

4scm

A UNIQUE PARTNER IN **SURFACE TREATMENT**



SCM has always placed importance on surface treatment and was the first to believe in the value of having Surface technologies in its range for finishing, placing them alongside other solutions for finishing, sanding and coating, and enhancing this process stage. SCM offers its clientele specific developments for this sector like the **Superfici Technology Center in Villasanta** (Monza), the Surface Tech Lab in Villa Verucchio (Rimini) as well as other finishing partners in foreign branches.

Thanks to its vast and consolidated know-how, the Italian company is in a position to offer a wide range of technologies for sanding, pressing and finishing, distinguishing itself as a unique partner in the entire surface treatment process: a complete range of products and services as well as exclusive, sought-after finishing solutions, to meet all the process and end product type requirements.

The innovative **dmc system** operating units which have transformed the concept of the sanding machine into a flexible abrasive modular machine, the **Superfici** spray painting systems and robot equipped glue application and the **sergiani 3d form** membrane presses, that allow for uneven surfaces to be smoothed, are some of the key technologies presented to the furniture industry at the latest edition of Ligna 2019 at the **SCM stand (Pav. 13)**. These solutions allow for surfaces to be prepared and treated to produce finished products with a **3D finishing effect** like wave designs, hand smoothed, structured, saw cut and worm hole, capable of adding unique touch and visual sensations.

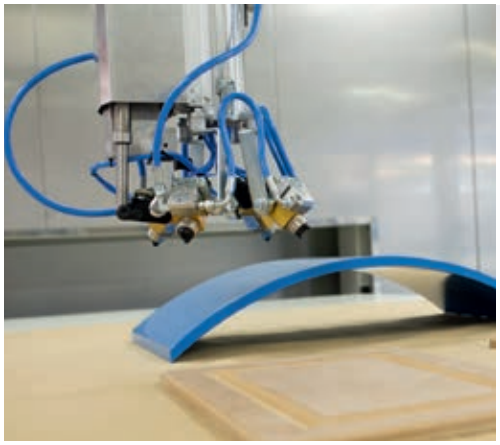
Considerable interest also for the most exclusive solutions in finishing at the **Superfici** stand **(Pav. 16)**. These include, **anthropomorphous and Cartesian robots for painting** panels, fixtures, a vast range of sprayers aimed at the different application requirements and production capacity, the latest generation of roller painters and UV and UV LED driers. Machines all in "4.0" version.

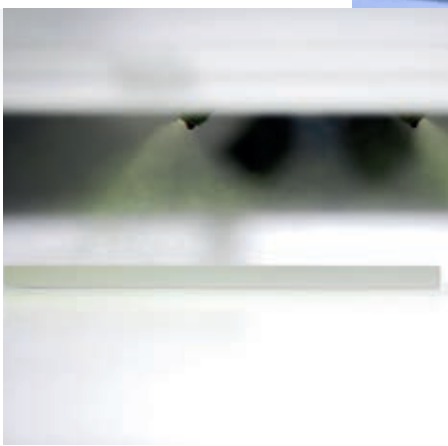
Part of the Superfici production area in Villasanta

From the left:
Alberto Fiorani and the product managers Fabrizio Pigato, Fabrizio Bello and Alessandro Caramia

***Alberto Fiorani**, business unit manager in charge of SCM technologies on the subject of sanding, sectioning, pressing, assembly and packaging: "We like to talk about all-round "surface treatment" because this involves different essential processes: sanding, pressing and painting. This is market demand, constantly in search of an integrated approach and solid points of reference with skills, thanks to which a large part of a process can be easily handled. From here, a more synergistic approach from SCM, to complement the group's strategies which it has always had, right from the first purchase made in the 1980s precisely with a view to providing the client with skills and all-round solutions: no one else offers such a vast, articulated range".*

(Xylon, January-February 2019)





A moment of the opening
of the new SCM Surface Tech Lab at Villa Mare (Rimini) last January

***Gloria Valtorta**, Superfici's business unit manager: "We deal with finishing, painting, tactile aspects, aesthetics and sensitivity... This is our mission within the Group. An important challenge because we are talking about appearance, that first impression when you find yourself in front of a unit, a piece of furniture, a door or a window. We are specialists strongly integrated into the Group's work, world leader in technologies for secondary wood processing. The technical and technological part of the finishing and painting is in our DNA and everything is devised, designed, planned and manufactured at Villasanta: whether we are talking about a line to integrate into a new plant produced by the Group's Engineering or a machine that a long-standing or new client asked us for. At Superfici we cover everything".*

(Xylon, September-October 2018)

AN IMPECCABLE FINISHING **FOR A BEAUTIFUL, NATURAL AND HEALTHY PARQUET FLOOR**

"Let's give the tree a second life in our homes". The Bauwerk Boen group is a major European manufacturer of parquet floors, produced with completely natural wood which guarantees a healthy lifestyle and one that respects the environment. Excellent innovation and precision (the words of Swiss people!) and specialised skills are the cornerstones of this group that has also acquired a new, highly innovative plant in Croatia equipping it with a line for Superfici finishing. And considering the high level of satisfaction, made a second purchase of a Valtorta F1 roller machine for the headquarters in Switzerland"

Swiss precision and quality natural wood, like the wood from the oak forests in green and luxuriant Croatia. Two very different countries and cultures that merge perfectly in the **Bauwerk Boen** flooring by the Swiss group of the same name, nowadays one of Europe's leading parquet manufacturers. Two companies with a long history which merged into one, and today, lend their names to the two brands Bauwerk Parkett AG and Boen AS. In 2017, the group employed around 1.800 people and in the same year had a turnover of 285 million CHF (Swiss Francs), the equivalent of 254 million Euro. A manufacturer proud of its origins, but firmly focused on innovation.

In recent years, from its "cradle" in Switzerland, the Bauwerk Boen Group has expanded its horizons towards Eastern Europe, opening new production sites in Lithuania and Croatia. And it is precisely to **Đurdevac** in Croatia, around two hours from Zagreb towards the border with Hungary, that we went to get see the “Bauwerk quality” for ourselves, synonymous with specialised skills and advanced technologies, and to discover one of the lines for the Superfici finishing purchased from SCM.

Different flags, hang at the entrance to the plant, instantly revealing the rich life of this group owned by the Swiss Ernst Göhner Beteiligungen AG and the Norwegian Johan G.Olsen AS. We are welcomed by the Managing director (MD) **Igor Benakovic**: "The main reason for opening these new premises was to benefit from the good logistics position to reach our reference markets and to have access to natural wood renowned for its good quality like that of the Croatian oak - **explains the Bauwerk Boen Croatia MD**. Furthermore, Croatia offers highly specialised human resources in the wood manufacturing industry. Also, the country is in line with standards in the most developed countries and has a healthy approach to life, in line with the distinctive features found in our parquet floors, which aim to contribute to a better quality of living and meet market demands for increased sensitivity towards eco-sustainable
matters. This is why we use only wood and other materials that are both healthy and eco-friendly. "Let's give the tree a second life in our homes". Indeed, certain Bauwerk brand products are certified "Cradle to cradle" to identify production processes which preserve and regenerate natural elements.

The group produces a variety of parquet floors. The **Bauwerk** brand presents a twolayer wooden

floor and is sold both via installers and distribution partners with their own showroom space. Switzerland, Austria and Germany are its main markets. **Boen**, on the other hand, has three layers and is offered via wholesalers and retailers mainly in Norway, Sweden, Germany, the United Kingdom, and even the United States and Far East.

"In Croatia - continues their MD - we produce both finished and semi-finished flooring for both brands. We have state-of-the-art machinery which spans from the sawmill right up to surface treatment and line for finishing. We are proud to

have built the entire plant and production line, but our greatest source of pride is the success of our Croatian colleagues, backed by the entire Bauwerk Boen group".

It is essential to guarantee top quality in an evolving and increasingly demanding market at each stage of the process**. The finishing work, in particular, is what gives the final touch**, where performance and appearance become key parameters. There is also increasing demand on the parquet floor industry for customised products, and this requires highly flexible production processes to manufacture a wide range of extremely accurate products and technologies, equipped with a simple, userfriendly interface. "The Superfici line can easily be adjusted thanks to the Supervisor interface and offers considerable advantages from an operating flexibility point of view which we could exploit further with larger production volumes".

The line has seven **valtorta f1** roller coaters to apply all lacquer applications and achieve varying finishing effects on the parquet floor. In addition, there is a **valtorta s4** filling machine with an applicator which spreads the product and a chrome steel roller which, by rotating it in the opposite direction to which it moves, compresses the filler deep into the holes in the wood and removes any excess material. The UV Selecure ovens are ideal for making the most of the energy given off by the UV lamp to effectively polymerize the coatings applied to the surface of the parquet strips. The line is also integrated with a **stain wiping** brushing system to create an aged effect and vintage finishing.
Thanks to the control of the supervisor software, the entire process can be tracked and data exchanged on production, data control or order lists, an invaluable advantage nowadays and even more so in the coming years.

The latest Superfici purchase is, however, in Switzerland at the Bauwerk AG headquarters in St. Margrethen and dates back to the summer of 2018. "We were so satisfied with the line installed here in Croatia, that we decided to replace the dated application machinery with **a valtorta f1** roller machine. We chose to invest in "made in Italy" because it is synonymous with an excellent quality-price ratio and standard delivery times".
Even an effective, punctual after-sales support service as well as a readily available and competent Superfici and SCM team, becomes key to a company focused on perfection and continuous improvement. Because there can be no winning technology without a reliable partner to back it up.

PIONEERS OF THE 4.0 INDUSTRY **IN THE "PROMISED LAND"**

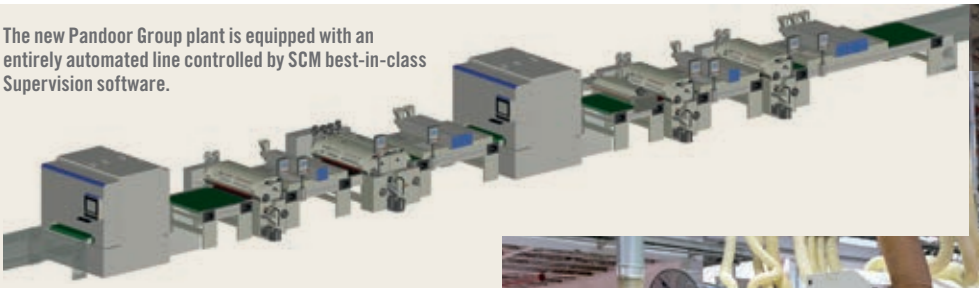
Pandoor Group, an Israeli manufacturer of interior doors, was the first in the industry to adopt automated lines integrated with robotics, which not only guarantee high volumes but also allow for high quality products to be achieved and customised according to the individual client's needs. The most recent line purchased from SCM applies the most evolved technologies for surface treatment to create laminate painted doors

A continuous investment in Research and Development, constant attention to the quality of materials and technological processes adopted and an innovative, far-sighted approach capable of picking up on new market trends and, in many cases, anticipating them. These are the secrets to the success of **Pandoor doors for interiors**, designed for houses, offices, hotels and, more generally, for a clientèle that is highly sensitive to focusing on the design and product. Even a door for interiors, if manufactured in line with the highest aesthetic and quality criteria, plays a key role in creating an elegant, sophisticated environment where details count.

Pandoor Group understands this well. An Israeli manufacturer in the industry with 250 direct employees and another 200 collaborators with exclusive rights. Established in 1989, this group has always been at the forefront in Israel and the Middle East not only with the development and production of innovative products, but also the choice of state-of-the-art production systems, showing itself in many aspects as a genuine pioneer in the Promised Land. “We were the first in Israel to produce painted laminate doors with polymer frames that were highly water resistant” claims their vice president **Anatoly Vays**. Nowadays, the company led by **Udi Gat**, produces around 200 thousand doors per year, for the mid to top end of the market and exclusively at national level. “We prefer to sell our doors in Israel as this allows us greater margins” adds Vays, thus explaining the sales choice adopted. The identikit of the Pandoor client varies greatly and can be private individuals, salespersons or contracts. This involves the need to satisfy different requirements and specifications, according to the case in hand, although there are a few aspects common to all those in the Pandoor target. “Nowadays, the market tends to prefer a clean-cut design, an essential colour like white and painted doors” explains Vays.

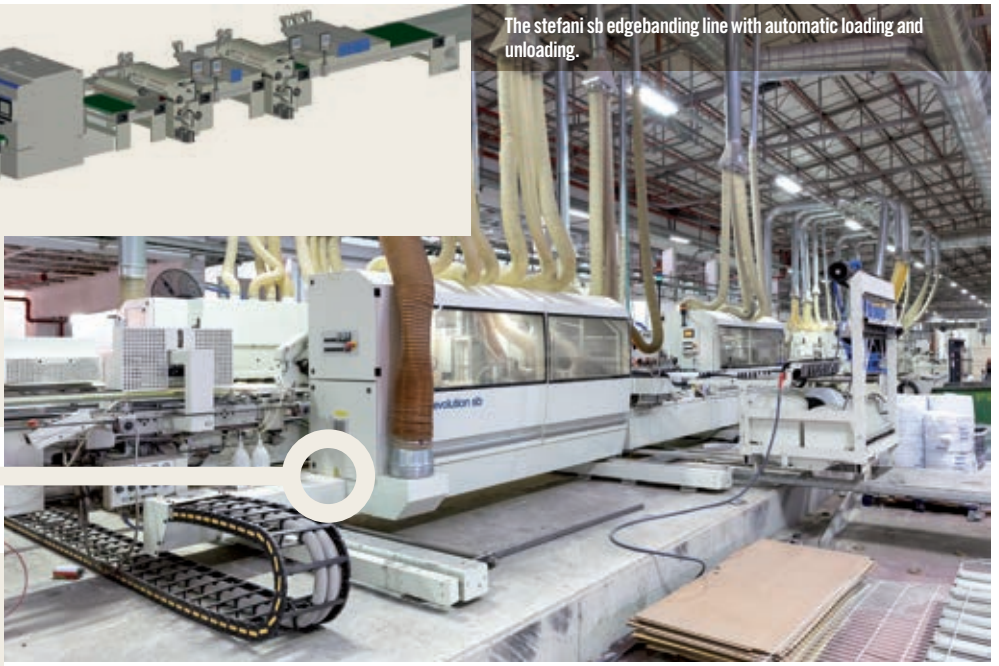
The Pandoor brand knew how to become a **genuine point of reference in the market** thanks to the company’s ability to develop and produce lines of doors that are always state-of-the-art. Focus on the product starts with the raw material which is of a very high quality and imported from abroad, and continues with the use of evolved technologies, for each stage of the production cycle: from pressing to square-edging and from boring to painting. Innovation at product as well as process level. “Having state-of-the-art technological solutions to hand means being able to guarantee good accuracy with results which are increasingly favourable for our clients". This is the explanation behind another of Pandoor Group's strong points: **a high level of automation perfectly in line with the new 4.0 Industry demands**. The Israeli company acted as a guide even on this front as it was the first one in Israel to adopt the **lines integrated with robot and RFID** (Radio-Frequency Identification, in other words, bar code identification) technologies at its new plant for the production of wooden doors. This way, a more rapid production was guaranteed and, at the same time, a highly “customised” one, according to the needs and tastes of the individual clients, though always with high levels of precision and attention to the finishing and design of the end product.

The new Pandoor Group plant is equipped with an entirely automated line controlled by SCM best-in-class Supervision software. Built around the **Superfici valtorta f1** roller coating solution,



The new Pandoor Group plant is equipped with an entirely automated line controlled by SCM best-in-class Supervision software.

It includes the Superfici valtorta f1 roller coating solution, the Superfici UV drying system, and dmc sanders for surface treatment.



The stefani sb edgebanding line with automatic loading and unloading.

the line also features the **Superfici UV drying system**, and flexible abrasive technologies from SCM such as **dmc** sanders for surface treatment.

"Everything that can improve the quality of our product is of interest to us" underlines the vice president of Pandoor Group. **The integrated SCM lines are the winning combination that allow us to achieve high standards of quality**: the surfaces need to be smooth and even and free of any imperfections. A good preparation of the raw product makes the subsequent stages easier and produces advantages in financial and qualitative terms. On the contrary, poor preparation will often definitively compromise the paint work. The paint work, using the UV method not only provides an advantage of being highly customised but, over time, makes the end product extremely resistant to colour change following exposure to light sources.

"This line is currently at the creation stage and we hope to have it in production by June 2019. This is added to other SCM models, like the **sergiani** range for pressing and the **stefani sb** edgebanding line with automatic loading and unloading. Its special composition also allows for finishing work to be carried out and, as a result, a complete process on three sides of the door (sides and upper). This avoids manual intervention for finishing work.

"We decided to make this investment to increase our production capacity of painted doors, but above all, we chose an Italian company like SCM because our client particularly appreciates the Made in Italy" adds Vays.
Pandoor handles the entire process for its clients, from design to installation, and therefore has to optimise its own factory making the most of all the potentials offered by "smart manufacturing". It is no coincidence that it is equipped with state-of-the-art digital software and services for a constant and detailed analysis of all the production parameters.

LEGNOARREDO TRAINING CENTRE (ITALY)

08

TRAINING

STANDING BY FUTURE

The new LegnoArredo Training Centre, ITS Rosario Messina in Brianza, an area that is at the heart of Italian design and furniture, has chosen SCM to set up an exceptional woodworking workshop. The laboratory is fitted with twenty-odd machines, representing the most important technologies, on which the future woodworking professionals will learn the secrets of the trade. But the partnership goes further, as the students will be able to take part in visits and work experiences at the plants of the Italian group and the teaching staff will be able to undertake refresher courses on the "digital factory", in the new SCM Group Campus

CRAFT WOODWORKERS 4.0

From the left, Luca Bergantini, SCM Italia Regional Manager, and Luigi De Vito, SCM Division Director

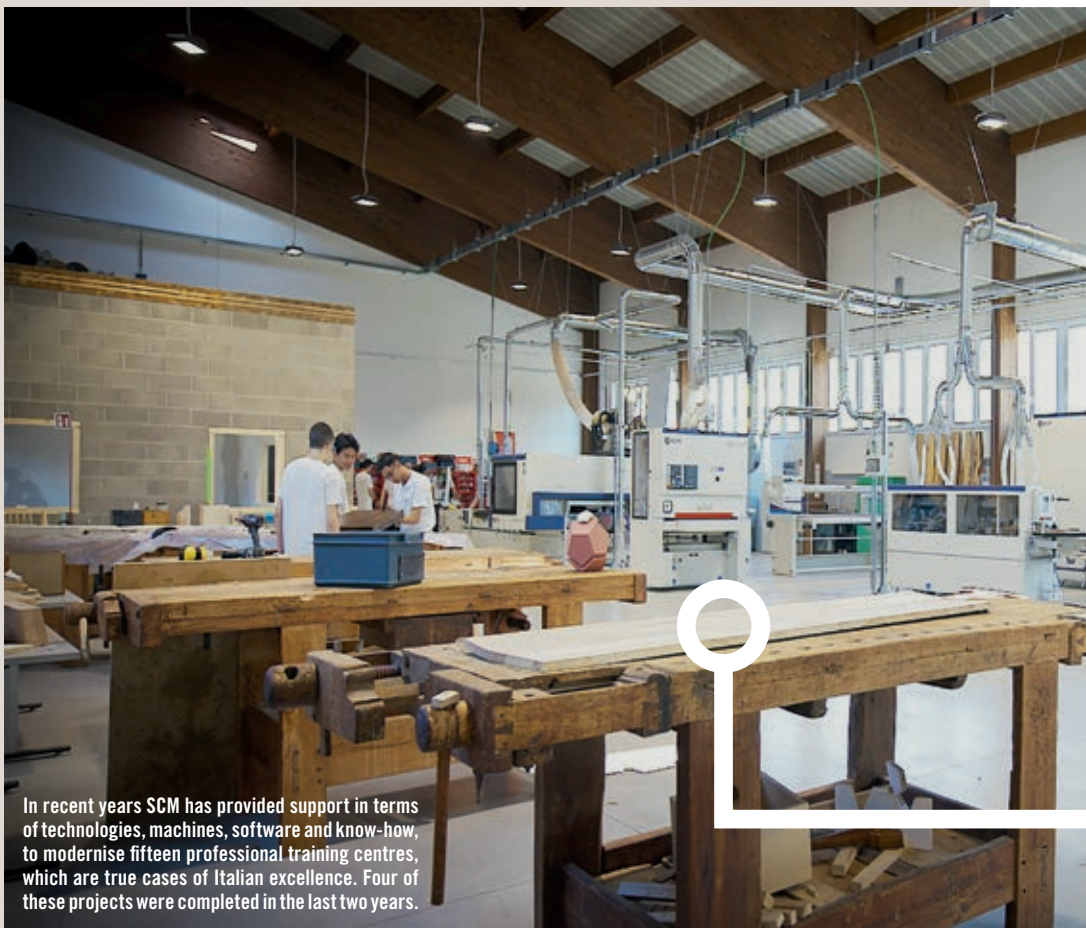
Fabio is fifteen years old. He's studying to become a woodwork operator and has dreams of working in the family business, producing custom furniture. The hours he has spent in the supervised learning environment, practicing on the machines, are the ones he enjoys the most, he tells us, whilst his classmates nearby are finishing coating the wooden covers for the school's support beams.

Mattia, like Fabio, has decided to enrol in the **LegnoArredo Training Centre in Lentate sul Seveso** and, even though he is still in his first year, his ideas are very clear: "Since I was little I've always loved working with wood. Whenever I could, after school, I used to go and help my grandfather in his workshop". Of this school, lying in the Brianza area, at the heart of the Italian furniture industry, Mattia enjoys most of all the possibility of learning practical skills, as well as how to operate the most advanced technologies. "When I grow up", he reveals to us, "I'd like to be a carver. In a month I will go on a work experience placement in a workshop specialising in this type of process".

Recently turned fifteen, but determined like, perhaps, few youngsters of his age, Federico seems more captivated by the new "smart" face of the woodworking trade. He is working on a **morbidelli m100** CNC machining centre, the most advanced model amongst the almost twenty SCM machines used in the school. "It's interesting to see how technology is able to let us do special machining operations that would otherwise be impossible", comments the young student, who would like to open his own kitchen furniture company. The morbidelli solution that he is practicing on is one of the drilling and routing "All-in-on technology" machining centres produced by SCM. This centre lets users produce pieces of any shape, also thanks to the **Maestro cnc** software, that meets any production requirement with utmost ease.

"Our students are mostly curious about the latest generation technologies like this one, that respond perfectly to the requirements of todays' companies", confirms **Francesco Chinellato**, Laboratory Manager of the Training Centre in Lentate sul Seveso. However, he adds, it is fundamental that these youngsters start from the basics. "We start with the first manual operations, even though our students will never actually do them in their jobs, like hand-made joints, that today are made exclusively with dowels or with the latest generation machines. And yet this allows our students to acquire an in-depth knowledge of the raw materials, the various differences in hardness and types of wood".

As well as the Morbidelli CNC machining centre, with all the requirements for an Industry 4.0 approach, the laboratory includes a wide range of SCM solutions: from the hardy machines for craft woodworkers, greatly appreciated for their range topping enhancing features and continuous innovation, (**minimax, formula, class** and **nova**), to those designed specifically for small to mid-sized companies, like the latest compact sander, the multitasking **dmc sd 60**, ideal for


In recent years SCM has provided support in terms of technologies, machines, software and know-how, to modernise fifteen professional training centres, which are true cases of Italian excellence. Four of these projects were completed in the last two years.

thicknessing and sanding solid wood, as well as sanding veneered panels and finishing painted surfaces and a **sergiani gs** electronic control press, which is highly versatile and precise in machining veneered panels, hollow-core doors and multi-layer panels. The school is able to carry out all the machining operations: planing, profiling, trimming, pressing, panel-sizing, sanding, edgebanding and drilling. Whilst students can practice the more advanced operations with the machining centre.

"This woodworking laboratory has been recreated according to academic criteria", explains **Luca Bergantini**, SCM Italy Branch Manager, stressing that the project with the Fondazione ITS Rosario Messina, is the most important project at the national level. "There are no other professional training centres that can count on this level of technological equipment".

The collaboration with the LegnoArredo Training Centre extends beyond the laboratory. SCM's technologies and know-how are also taught in the classroom, where students can learn about the software and the digital services involved in secondary woodworking processes. Not only, students can visit and take part in work experience placements at the SCM plants, whilst the teaching staff can take part in training courses, at the new **SCM Group Campus**. "For us it's extremely important to support a centre of excellence like this", adds Bergantini. "And in such an important market as the Italian one and in a region like Brianza, renowned worldwide for its furniture and design. In a sector that evolves so quickly, it is essential to be able to provide prompt and concrete answers, which are constantly up to date with the new technological challenges".

With its new premises, built with environmentally sustainable criteria and designed to welcome more than 300 students, the Training Centre in Lentate sul Seveso, has become **the most important training centre in the sector in Italy**. "This centre was born from the requests of companies that needed to increase their human resources with youngsters that can develop a keen interest for this job. All the students who are following our courses have already been 'booked' by the companies of the sector", states **Angelo Candiani**, General Director of the Fondazione ITS Rosario Messina.
The youngsters that come from secondary schools can choose to enrol in the basic three-year "woodwork operator" course and then carry on for another year to obtain their professional diploma as "woodwork technician". For the higher education specialisation the centre also offers a higher education course in the wooden furniture sector, with two distinct options: "Higher level technician in product, marketing and internationalisation" and "Higher level technician in design and industrialisation", which is more focused on Industry 4.0.

"The training approach is extremely hands-on", explains the coordinator, professor **Luigi Mettica**. "In the first year 25% of the time is spent in the workshop. Moreover, from the second year onwards and also for the higher education courses, 30% of the time is spent on work experience, with companies of the sector".
The students learn about the material and learn how to work it, creating, with the most advanced technologies, beautiful as well as useful products. Without forgetting the root where everything starts: the wood. A state of the art training experience, but always realised with heart and passion, in line with SCM's "Smart&Human Factory".

Photo Credits: Leonardo Pollavini

SCM

SINCE 1952 WE HAVE BEEN FIRM LEADERS **IN THE MANUFACTURE OF MACHINES, SYSTEMS AND SERVICES FOR THE WOODWORKING INDUSTRY**

Since 1952, a leading producer of machinery and systems, as well as service provider, for the woodworking industry. Our 3 major production centres in Italy boast a record annual production output of over 20,000 machines, supported by the largest distribution network in the industry and an excellent after-sales service.
Its state-of-the-art woodworking technologies and applications are able to respond to all market needs, both within an industrial context and in that of the craftsman, both for machining panels and processing of solid wood. As from today, SCM is the reference brand in the field of woodworking machinery and that of the specific technologies developed by the historical brands, who now give their respective names to each of the machines.

TECHNOLOGIES	ORIGINAL BRANDS
CNC MACHINING CENTRES FOR DRILLING AND ROUTING	MORBIDELLI
CNC NESTING MACHINING CENTRES FOR DRILLING AND ROUTING	SCM
CNC MACHINING CENTRES FOR SOLID WOOD ROUTING AND DRILLING	SCM, BALESTRINI
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
TENONERS, MORTISERS, DOUBLE SIDED SHAPERS	BALESTRINI
MACHINES AND SYSTEMS FOR SQUARING, TENONING AND PROFILING	CELASCHI
ASSEMBLY	CPC
PACKAGING	CPC
JOINERY MACHINES	SCM, MINIMAX, FORMULA
INTEGRATED SYSTEMS AND LINES	

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